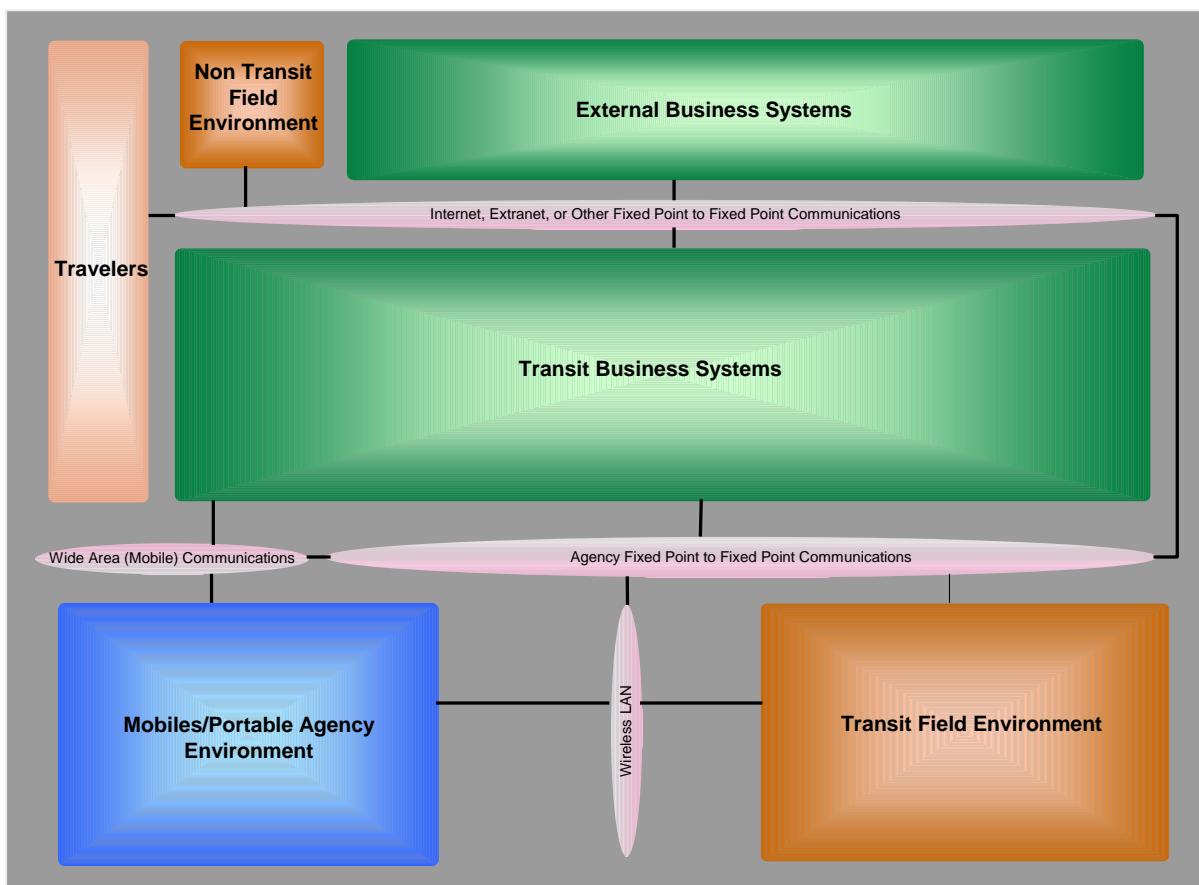


# APTA TCIP-S-001 4.1.1, APTA Draft Standard for Transit Communications Interface Profiles

Version 4.1.1

Volume II

## TCIP Data and Dialog Definitions



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## Annex A - TCIP Data Elements

### A.1 Data Element CC-AdherenceMsgType {CC-108}

#### Use:

Identify the reason that a CcPTVAdherence was sent.

#### Remarks:

#### ASN1:

```
CC-AdherenceMsgType ::= ENUMERATED {
  InitialNoException          (0),
  InitialLate                 (1),
  InitialEarly                (2),
  InitialLateOffRoute         (3),
  InitialEarlyOffRoute        (4),
  InitialOffRoute             (5),
  becameLate                  (10),
  becameEarly                 (11),
  recoveredLate               (12), -- no longer late
  recoveredEarly               (13), -- no longer early
  becameOffRoute              (20),
  recoveredOffRoute           (21),
  -- 22-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data element

The following messages directly use this data element:

[CcPTVAdherence](#)

## A.2 Data Element CC-AgencyData {CC-152}

### Use:

Provide a field to include agency defined data in a poll or poll response.

### Remarks:

#### ASN1:

```
CC-AgencyData ::= MEMSHORT16
```

The following data frames directly use this data element:

[CCPollContents](#)  
[CCPollControl](#)  
[CCPollResponseContents](#)

No messages were identified that directly use this data element

## A.3 Data Element CC-AlarmCode {CC-31}

### Use:

The type of automatic alarm that may occur on a revenue vehicle.

### Remarks:

#### ASN1:

```
CC-AlarmCode ::= ENUMERATED {
  fire                  (1),
  smoke                 (2),
  high-acceleration     (3),  -- e.g. accident
  fuel-spill             (4),
  -- 5-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[CCAlarm](#)

No messages were identified that directly use this data element

#### A.4 Data Element CC-AlarmText {CC-110}

**Use:**

Provide the text to identify a manually selected alarm.

**Remarks:**

**ASN1:**

```
CC-AlarmText ::= NAME30
```

**The following data frames directly use this data element:**

[CCManualAlarmDefinition](#)

**No messages were identified that directly use this data element**

#### A.5 Data Element CC-AnnouncementDesignator {CC-139}

**Use:**

An alphanumeric identifier for an announcement.

**Remarks:**

**ASN1:**

```
CC-AnnouncementDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CCAnnouncementIden](#)  
[CCCannedMsgIden](#)  
[CCCannedMsgTakeListIden](#)  
[CCTakeIden](#)  
[PISignIden](#)

**No messages were identified that directly use this data element**

## A.6 Data Element CC-AnnouncementMsgID {CC-2}

### Use:

A number associated with an announcement message as assigned by the transit agency.

### Remarks:

#### ASN1:

CC-AnnouncementMsgID ::= NAME30

**The following data frames directly use this data element:**

[CCAnnouncementIden](#)

**No messages were identified that directly use this data element**

## A.7 Data Element CC-AnnouncementName {CC-140}

### Use:

Used to provide an agency-assigned name to an announcement.

### Remarks:

#### ASN1:

CC-AnnouncementName ::= NAME30

**The following data frames directly use this data element:**

[CCAnnouncementIden](#)  
[CCCannedMsgIden](#)  
[CCCannedMsgTakeListIden](#)  
[CCTakeIden](#)  
[PISignIden](#)

**No messages were identified that directly use this data element**

## A.8 Data Element CC-CallStatus {CC-109}

### Use:

Define the status of a voice radio call request.

### Remarks:

### ASN1:

```
CC-CallStatus ::= ENUMERATED {
    denied                  (0),
    connect                 (1),
    disconnect              (2)
    -- 3-100 reserved
    -- 120-200 local use
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[ObVoiceRequestProgress](#)

## A.9 Data Element CC-CannedMsgID {CC-104}

### Use:

Identify a canned (predefined) message. Use of canned message identifiers allows the short identifier to be transmitted rather than the entire message.

### Remarks:

### ASN1:

CC-CannedMsgID ::= NAME30

**The following data frames directly use this data element:**

[CCCannedMsgIden](#)

**No messages were identified that directly use this data element**

## A.10 Data Element CC-CannedMsgTakeID {CC-147}

### Use:

Identify a take in a take list. A take is text which can be inserted into blanks in a canned message.

### Remarks:

### ASN1:

CC-CannedMsgTakeID ::= USHORT

**The following data frames directly use this data element:**

[CCTakeIden](#)

**The following messages directly use this data element:**

[CcOperatorMessage](#)

## A.11 Data Element CC-CannedMsgTakeListID {CC-148}

### Use:

Identify a list of takes (text inserts) from which fill in the blank material for canned messaged can be drawn.

### Remarks:

### ASN1:

CC-CannedMsgTakeListID ::= NAME30

**The following data frames directly use this data element:**

[CCCannedMsgTakeListIden](#)

**No messages were identified that directly use this data element**

## A.12 Data Element CC-ConfigurationData {CC-112}

### Use:

Convey the binary software configuration data (manufacturer -defined) for an onboard component.

### Remarks:

This element conveys up to 2,000,000 octets of manufacturer-defined software configuration data.

### ASN1:

```
CC-ConfigurationData ::= MEMLONG
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcOnboardConfigurationData](#)

## A.13 Data Element CC-DestinationMessageID {CC-107}

### Use:

Provide a unique identifier for a destination sign message.

### Remarks:

### ASN1:

```
CC-DestinationMessageID ::= NAME30
```

**The following data frames directly use this data element:**

[CCDestinationMessageIden](#)

[CCPTVLocation](#)

**The following messages directly use this data element:**

[CcLR](#)

[CcLocationReport](#)

## A.14 Data Element CC-DestinationSignDesignator {CC-141}

### Use:

Allows an agency to assign a designator to a destination sign message.

### Remarks:

#### ASN1:

```
CC-DestinationSignDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CCDestinationMessageIden](#)  
[PIGTFSStopTimes](#)

**No messages were identified that directly use this data element**

## A.15 Data Element CC-DestinationSignName {CC-142}

### Use:

Allows an agency to assign a name to a destination sign message.

### Remarks:

#### ASN1:

```
CC-DestinationSignName ::= NAME30
```

**The following data frames directly use this data element:**

[CCDestinationMessageIden](#)

**No messages were identified that directly use this data element**

## A.16 Data Element CC-DetourID {CC-5}

### Use:

A number associated with a detour as assigned by a transit agency. The detour identifier may not necessarily be unique, but should be unique over the activation time and date.

### Remarks:

#### ASN1:

CC-DetourID ::= UBYTE

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcCancelDetour](#)  
[CcCancelDetourAck](#)  
[CcDetourAck](#)  
[CcNotifyDetour](#)

## A.17 Data Element CC-EmergencyCode {CC-143}

### Use:

To identify an emergency state that is active on a PTV.

### Remarks:

#### ASN1:

```
CC-EmergencyCode ::= ENUMERATED {
    silentAlarm          (1), -- silent alarm activated
    passengerAlarm       (2), -- passenger alarm activated
    emergencySignal     (3),
    -- 4-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CCPTVLocation](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcLocationReport](#)

### **A.18 Data Element CC-ExceptionFrequencyReport {CC-7}**

**Use:**

The frequency between reports required when a transit vehicle in revenue service deviates from an adherence requirement.

**Remarks:**

Expressed in 10 second intervals.

**ASN1:**

CC-ExceptionFrequencyReport ::= UBYTE

**The following data frames directly use this data element:**

[CCAActivateScheduleAdherence](#)  
[CCRRouteAdherenceEntry](#)

**No messages were identified that directly use this data element**

### **A.19 Data Element CC-ExecutableSoftware {CC-105}**

**Use:**

Convey the binary executable for an onboard component

**Remarks:**

This element conveys up to 2,000,000 octets of executable software. For larger executables, a sequence of these elements is required. The contents of the sequence of the elements are concatenated to create a longer executable file.

**ASN1:**

CC-ExecutableSoftware ::= MEMLONG

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcOnboardSoftware](#)  
[FcFareLoadData](#)

## A.20 Data Element CC-J1939DiagnosticMessage1 {CC-137}

**Use:**

Used to convey a diagnostic trouble code from a vehicle defined by SAE J-1939-73. This element contains the definition of Diagnostic Message 1 of the SAE J1939-73 standard section 5.7.1 (R) Active Diagnostic Trouble Codes (DM1)

**Remarks:**

**ASN1:**

CC-J1939DiagnosticMessage1 ::= MEMSHORT8

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.21 Data Element CC-J1939DiagnosticTroubleCode {CC-144}

### Use:

Used to convey a diagnostic trouble code from a vehicle defined by SAE J-1939-73.

### Remarks:

#### ASN1:

```
CC-J1939DiagnosticTroubleCode ::= ULONG
```

The following data frames directly use this data element:

[CCJ1939FaultCode](#)

No messages were identified that directly use this data element

## A.22 Data Element CC-J1939FlashLampStatus {CC-145}

### Use:

Used to convey the status of a flash lamp(s) in a diagnostic Message defined by SAE J-1939-73

### Remarks:

#### ASN1:

```
CC-J1939FlashLampStatus ::= ENUMERATED {
    slowFlash          (0), -- slow flash
    fastFlash          (1), -- fast flash
    reserved           (2), -- reserved
    unavailable        (3)  -- unavailable/no signal
    -- 5-100 reserved
    -- 101-120 local use
}
```

No data frames were identified that directly use this data element

The following messages directly use this data element:

[CcJ1939FaultCodeList](#)

### A.23 Data Element CC-J1939LampStatus {CC-146}

**Use:**

Used to convey the status of a lamp(s) in a diagnostic Message defined by SAE J-1939-73

**Remarks:**

**ASN1:**

```
CC-J1939LampStatus ::= ENUMERATED {
    lampOff                  (0), -- lamp off
    lampOn                   (1), -- lamp on
    reserved                 (2) -- reserved
    -- 5-100 reserved
    -- 101-150 local use
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcJ1939FaultCodeList](#)

### A.24 Data Element CC-ManualAlarmID {CC-111}

**Use:**

Identifies a predefined alarm to be loaded to the vehicle and made available for use by the operator.

**Remarks:**

**ASN1:**

```
CC-ManualAlarmID ::= IDENL
```

**The following data frames directly use this data element:**

[CCManualAlarmDefinition](#)

**The following messages directly use this data element:**

[CcAckManualAlarm](#)  
[CcManualAlarm](#)

## A.25 Data Element CC-ManufacturerData {CC-100}

**Use:**

Allow manufacturer-defined data to be appended to a standard TCIP message. This may be useful for locally-defined extensions to messages between the control center and vehicles.

**Remarks:**

Information in this field is not useful in a multivendor environment, use of this field increases the message size, increasing network capacity requirements and may result in longer location reporting intervals.

**ASN1:**

CC-ManufacturerData ::= FOOTNOTE

**The following data frames directly use this data element:**

[CCPTVLocation](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcLocationReport](#)

## A.26 Data Element CC-MsgCounter {CC-101}

**Use:**

Provide a count of messages waiting to be transmitted across the radio channel.

**Remarks:**

The value zero indicates none, value FFH is reserved, all other values are valid message counts.

**ASN1:**

CC-MsgCounter ::= UBYTE

**The following data frames directly use this data element:**

[CCPollContents](#)  
[CCPollResponseContents](#)

**No messages were identified that directly use this data element**

## A.27 Data Element CC-MsgResponse {CC-10}

### Use:

Defines whether a response is required of the operator to an associated message.

### Remarks:

### ASN1:

```
CC-MsgResponse ::= ENUMERATED {
    noResponse          (0),
    responseRequired    (1)
    -- 2-100 reserved
    -- 101-120 local use
}
```

**The following data frames directly use this data element:**

[CCActivateScheduleAdherence](#)

**No messages were identified that directly use this data element**

## A.28 Data Element CC-PTVInspectionFault {CC-136}

### Use:

Define a fault occurring during a PTV inspection.

### Remarks:

### ASN1:

```
CC-PTVInspectionFault ::= ENUMERATED {
    broken-seat          (1),  -- Broken seat
    equip-air-conditioning (2),  -- Equipment - air conditioning
    equip-air-system     (3),  -- Equipment - air system
    equip-brakes         (4),  -- Equipment - brakes
    equip-chassis        (5),  -- Equipment - chassis/suspension
    equip-cooling        (6),  -- Equipment - cooling system
```

```
equip-doors          (7), -- Equipment - doors
equip-electrical     (8), -- Equipment - electrical
equip-engine          (9), -- Equipment - engine
equip-exterior         (10), -- Equipment - exterior/body
equip-fc              (11), -- Equipment - fare collection
equip-fuel             (12), -- Equipment - fuel/exhaust
equip-horn             (13), -- Equipment - horn
equip-interior         (14), -- Equipment - interior
equip-lift              (15), -- Equipment - lift/kneeling
equip-lights            (16), -- Equipment - lights
equip-lubrication       (17), -- Equipment - lubrication
equip-communications    (18), -- Equipment - radio/communication
equip-signs             (19), -- Equipment - signs
equip-steering           (20), -- Equipment - steering
equip-tires              (21), -- Equipment - tires/wheels
equip-transmission        (22), -- Equipment - transmission
equip-unknown-alarm      (23), -- Equipment - unknown alarm
equip-wipers             (24), -- Equipment - wipers
etch-glass              (25), -- Etch glass
broken-glass             (26),
interior-dirty           (27),
exterior-dirty            (28),
-- 29-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcPTVInspection](#)  
[CcPTVInspectionAck](#)

## A.29 Data Element CC-PassengerMiles {CC-138}

### Use:

Record the number of passenger miles of service provided.

### Remarks:

### ASN1:

CC-PassengerMiles ::= ULONG

The following data frames directly use this data element:

[CCBlockWorkRecord](#)

No messages were identified that directly use this data element

## A.30 Data Element CC-PollDataRequested {CC-103}

### Use:

Identify the fields that the polling controller wants returned by the PTV in response to a poll.

### Remarks:

Agencies may specify their polling controller to always use a predefined (constant) value for this data element. This approach precludes dynamic vehicle by vehicle assignments or poll data to be returned. This is a 16 bit structure, the values of the bits are as follows:

bit 0	0=don't include heading	1=include heading
bit 1	0=don't include speed	1=include speed
bit 2	0=don't include time	1= include time
bit 3	0=don't include activeAlarms	1=include activeAlarms
bit 4	0=don't include currentRoute	1=include currentRoute
bit 5	0=don't include lastTimepoint	1=include lastTimepoint
bit 6	0=don't include lastStopPoint	1=include lastStopPoint
bit 7	0=don't include lastTimepointTime	1=include lastTimepointTime
bit 8	0=don't include lastTimepointOffSched	1=include lastTimepointOffSched

bit 9	0=don't include currentPattern	1=include currentPattern
bit 10	0=don't include currentSegment	1=include currentSegment
bit 11	0=don't include passengerCount	1=include passengerCount
bit 12	0=don't include agency data	1=include agency data
bit 13	Reserved	
bit 14	Reserved	
bit 15	Reserved	

**ASN1:**

CC-PollDataRequested ::= USHORT

**The following data frames directly use this data element:**

[CCPollContents](#)  
[CCPollControl](#)

**No messages were identified that directly use this data element**

### A.31 Data Element CC-PollResponseStatus {CC-102}

**Use:**

Provide a packed vehicle status indication in a poll response.

**Remarks:**

This is a 8-bit structure, the values of the bits are as follows:

bit 0	0=no route adh alarm	1=route adh alarm active
bit 1	0=no schedule adh alarm	1=schedule adh alarm active
bit 2	0=no priority voice request	1= priority voice request
bit 3	0=no voice requested	1=voice requested
bit 4	0=silent alarm not active	1=silent alarm activated
bit 5	0= passenger alarm not active	1=passenger alarm activated
bit 6	0=PTV not in revenue service	1=PTV in revenue service
bit 7	0=other alarms inactive	1=other alarms active

**ASN1:**

CC-PollResponseStatus ::= UBYTE

**The following data frames directly use this data element:**

[CCPollResponseContents](#)

**No messages were identified that directly use this data element**

### A.32 Data Element CC-PollingGroup {CC-32}

**Use:**

Define a group address for PTVs to allow the TCIP Polling Controller to send a message to a specified group of PTVs.

**Remarks:**

**ASN1:**

CC-PollingGroup ::= UBYTE

**The following data frames directly use this data element:**

[CCPollContents](#)

[CCPollControl](#)

[CCPollingGroupInit](#)

[CCPollingGroupUpdate](#)

**No messages were identified that directly use this data element**

### A.33 Data Element CC-RadioVoiceControl {CC-18}

#### Use:

Identifies the PTV terminating device for a voice, radio, or telephone connection.

#### Remarks:

#### ASN1:

```
CC-RadioVoiceControl ::= ENUMERATED {
    handset                      (1),
    announcement                  (2),
    covert-mic                    (3),
    pa-interior                   (4),
    pa-exterior                   (5),
    pa-interior-exterior          (6),
    telephone-interconnect        (7),
    hailing-spkr                 (8),
    -- 9-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data element

The following messages directly use this data element:

[CcAcceptCallRequest](#)  
[CcAnnunciatorCallSetup](#)  
[CcCallTermination](#)  
[CcDispatchCallEnd](#)  
[CcDispatchCallSetup](#)  
[CcNotifyIncomingCall](#)  
[ObVoiceRequestProgress](#)

### A.34 Data Element CC-RequestDisposition {CC-133}

**Use:**

Describe the disposition of a traveler request.

**Remarks:**

**ASN1:**

```
CC-RequestDisposition ::= ENUMERATED {
    approved                  (1),
    acknowledged              (2),
    serviced                 (3),
    timed-out                (4),
    denied                   (5),
    requested                (6)
    -- 7-100 reserved
    -- 101-120 local use
}
```

**The following data frames directly use this data element:**

[CCConnProtLogEntry](#)  
[CCWheelchairLogEntry](#)

**No messages were identified that directly use this data element**

### A.35 Data Element CC-ResponseType {CC-19}

**Use:**

This data element is used to specify the type of a radio related request.

**Remarks:**

**ASN1:**

```
CC-ResponseType ::= ENUMERATED {
    rtt                      (1),  -- request to talk
    prtt                     (2),  -- priority request to talk
    urgent                   (3),
    data                     (4),
    spare-1                 (5),
    silent-alarm             (6),
    remote-silent-alarm     (7)
    -- 9-100 reserved
    -- 101-120 local use
```

}

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcAcceptCallRequest](#)  
[CcDenyCallRequest](#)  
[CcOperatorCallRequest](#)  
[ObVoiceRequest](#)

### **A.36 Data Element CC-ReturnToleranceEarly {CC-20}**

**Use:**

The deviation from scheduled time in seconds a transit vehicle must adhere to (once considered early) before it is considered on time (i.e., on-schedule) again.

**Remarks:**

**ASN1:**

CC-ReturnToleranceEarly ::= USHORT

**The following data frames directly use this data element:**

[CCActivateScheduleAdherence](#)

**No messages were identified that directly use this data element**

### A.37 Data Element CC-ReturnToleranceLate {CC-21}

#### Use:

The deviation from scheduled time in seconds a transit vehicle must adhere to (once considered late) before it is considered on time (i.e., on schedule) again.

#### Remarks:

#### ASN1:

```
CC-ReturnToleranceLate ::= USHORT
```

**The following data frames directly use this data element:**

[CCActivateScheduleAdherence](#)

**No messages were identified that directly use this data element**

### A.38 Data Element CC-RouteAdherenceState {CC-33}

#### Use:

Provide encoded vehicle status information.

#### Remarks:

The bits in this element encode Boolean values regarding the vehicle's state.

Bit0-On Intended Route

Bit1-Vehicle In Revenue Service

Bit2-7-Reserved

#### ASN1:

```
CC-RouteAdherenceState ::= USHORT
```

**The following data frames directly use this data element:**

[CCPTVLocation](#)

**The following messages directly use this data element:**

[CcLR](#)

[CcLocationReport](#)

### A.39 Data Element CC-RouteIDShort {CC-23}

**Use:**

A short version of the SCH-RouteID.

**Remarks:**

**ASN1:**

CC-RouteIDShort ::= USHORT

**The following data frames directly use this data element:**

[SCHPTVRouteScheduleEntry](#)

**The following messages directly use this data element:**

[SchPushRouteSchedule](#)

[SchRouteSchedule](#)

### A.40 Data Element CC-ScheduleToleranceEarly {CC-25}

**Use:**

The deviation from schedule in seconds before a transit vehicle in revenue service is considered early.

**Remarks:**

**ASN1:**

CC-ScheduleToleranceEarly ::= USHORT

**The following data frames directly use this data element:**

[CCActivateScheduleAdherence](#)

**No messages were identified that directly use this data element**

## A.41 Data Element CC-ScheduleToleranceLate {CC-26}

### Use:

The deviation from scheduled time in seconds before a transit vehicle in revenue service is considered late.

### Remarks:

### ASN1:

```
CC-ScheduleToleranceLate ::= USHORT
```

**The following data frames directly use this data element:**

[CCActivateScheduleAdherence](#)

**No messages were identified that directly use this data element**

## A.42 Data Element CC-ServiceEventType {CC-135}

### Use:

Allow an event that occurs during revenue service to be defined.

### Remarks:

These events are not intended to provide an exhaustive list of all possible incidents & service events. Incident codes associated with incidents provide a much more extensive set of codes for transit and non-transit incidents and events. This list was developed primarily to allow employees to report events and observations related to service. Some codes within event categories have been reserved for future use within the standard and may be renamed to a more meaningful name in a future revision of TCIP (e.g. future-base-68). This list is locally extensible to allow agencies the flexibility to define event codes unique to their operations.

### ASN1:

```
CC-ServiceEventType ::= ENUMERATED {
    customer-assaulted          (1), -- not on ptv
    employee-assaulted          (2),
    operator-assaulted          (3),
    fare-dispute                (4),
    intoxicated-customer        (5),
    sleeper                      (6),
    other-disturbance           (7),
    gang-activity-at-stop       (8),
    gang-activity-on-ptv         (9),
    firearm-displayed-at-stop   (10),
    firearm-displayed-on-ptv    (11),
    shot-fired-at-stop          (12),
```

shot-fired-on-ptv	(13),
shot-fired-between-stops	(14),
suspicious-pkg-at-stop	(15),
suspicious-pkg-on-ptv	(16),
drug-use-at-stop	(17),
drug-use-on-ptv	(18),
other-security	(19),
false-alarm	(20),
panhandling-at-stop	(21),
panhandling-on-ptv	(22),
passenger-assaulted	(23),
future-security24	(24),
future-security25	(25), -- --- Illness ----
operator-illness	(26),
passenger-illness	(27),
future-illness28	(28),
other-illness	(29), -- --- Schedule/Routing ----
overload-at-stop	(30),
off-route	(31),
off-schedule-early	(32),
off-schedule-late	(33),
overload	(34),
overload-passing	(35),
overload-wheelchair-passing	(36), -- --- Service Related ----
power-outage	(37),
service-response-required	(38),
special-event	(39),
street-blocked	(40),
traffic	(41),
auto-race	(42),
baseball-game	(43),
football-game	(44),
hockey-game	(45),
basketball-game	(46),
unsanitary	(47),
overhead-damage	(48),
other-service-event	(49), -- ---Mechanical And Accessibility ----
lift-malfunction-disabled	(50),
lift-malfunction-not-disabled	(51),
lift-malfunction-safety	(53),
zone-ramp-problem	(54),
mechanical-not-disabled	(55),
mechanical-disabled	(56),
radio-malfunction-road	(57),
other-mechanical-assist	(58),
other-mechanical-no-assist	(59), -- --- Base Related ----
base-error	(60),
maintenance-problem-base	(61),
no-coach	(62),
no-operator	(63),
operator-delay	(64),
tripper-storage	(65),
radio-malfunction-base	(66),
future-base67	(67),
future-base68	(68),
other-base-problem	(69), -- --- Weather Related ----
chains-broken	(70),
lost-in-snow	(71),
snow-wrapped-in-duals	(72),
snow-sand-to-clear	(73),
stuck-tow-to-clear	(74),
blocked	(75),

```
fog (76),  
heavy-rain (77),  
ice (78),  
other-weather (79),  
flooding (80), -- --- Other ----  
fuel-spill (81),  
hazmat-spill (82),  
utility-problem (83),  
fire (84),  
road-problem (85),  
pothole (86),  
bridge-problem (87),  
safety-other (88),  
monorail-problem (89),  
streetcar-problem (90),  
farebox-problem (91),  
misc-alarm (92),  
facility-damage (93),  
future-other94 (94),  
future-other95 (95),  
curb-damage (96),  
other-misc-event (97), -- ----- Transit Facilities-----  
facility-incident (98),  
shelter-fire (99),  
shelter-fire-damage (100),  
Shelter-damage (101),  
shelter-graffiti (102),  
shelter-power-out (103),  
Sign-missing (104),  
sign-damage (105),  
sign-power-out (106),  
bench-damage (107),  
bench-graffiti (108),  
t-facility-future (110), -- PTV -----  
ptv-fire (111),  
ptv-other (112),  
ptv-future113 (113),  
ptv-future114 (114),  
ptv-future115 (115),  
ptv-future116 (116),  
ptv-future117 (117),  
ptv-future118 (118),  
ptv-future119 (119), -- --- All Accident ----  
accident-diesel-trolley (120),  
accident-nonrevenue (121),  
accident-paratransit (122),  
accident-other (123),  
accident-future-type (124),  
accident-lift-related (125),  
-- 126-150 reserved  
-- 151-250 local use  
... -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data element:**

[CCEventRecord](#)

**No messages were identified that directly use this data element**

## A.43 Data Element CC-TrainDefectType {CC-151}

### Use:

Specify the type of a detected defect on a train.

### Remarks:

### ASN1:

```
CC-TrainDefectType ::= ENUMERATED {
    flatWheel                  (1),
    hotBearing                 (2),
    hotWheel                   (3),
    tooWide                    (4),
    tooHigh                    (5),
    draggingEquipment          (6),
    fire                       (7),
    noise                      (8),
    smoke                      (9),
    leaking                     (10)
    -- 11-128 reserved
    -- 129-254 local use
}
```

The following data frames directly use this data element:

[CCTrainDefect](#)

No messages were identified that directly use this data element

## A.44 Data Element CC-TravelerDenyReason {CC-132}

### Use:

Identify the reason that a traveler request was denied.

### Remarks:

Agencies may not elect to use the standard codes, and may not provide reasons for denial at all.

### ASN1:

```
CC-TravelerDenyReason ::= ENUMERATED {
    conn-prot-not-enabled      (1),
    invalid-request            (2),
    ptv-unavailable            (3),
    ptv-unreachable             (4),
    service-problems           (5),
    ptv-already-departed       (6),
    equipped-ptv-unavail       (7),
    -- 8-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcConnProtDeny](#)  
[CcWheelchairDeny](#)

## A.45 Data Element CC-TravelerRequestID {CC-131}

### Use:

Provide an identifier for a traveler request.

### Remarks:

### ASN1:

CC-TravelerRequestID ::= IDENL

**The following data frames directly use this data element:**

[CCConnProtLogEntry](#)  
[CCWheelchairLogEntry](#)

**The following messages directly use this data element:**

[CcConnProtAck](#)  
[CcConnProtAppr](#)  
[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcWheelchairAck](#)  
[CcWheelchairAppr](#)  
[CcWheelchairDeny](#)  
[CcWheelchairPickup](#)  
[CcWheelchairReq](#)

## A.46 Data Element CC-VehicleIDShort {CC-16}

### Use:

A short version of the CPT-VehicleID.

### Remarks:

### ASN1:

CC-VehicleIDShort ::= USHORT

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.47 Data Element CC-WorkorderNumber {CC-134}

### Use:

Provide an identifier for a work request.

### Remarks:

#### ASN1:

```
CC-WorkorderNumber ::= NAME60
```

**The following data frames directly use this data element:**

[CCWorkOrder](#)

**The following messages directly use this data element:**

[CcWorkOrderAssignAck](#)  
[CcWorkOrderUpdateAck](#)

## A.48 Data Element CPT-AddLanguageContent {CPT-140}

### Use:

This data element contains information in a specified additional language. The same information will also be present in the parent message or data frame in the agency's specified default language.

### Remarks:

#### ASN1:

```
CPT-AddLanguageContent ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CPTAdditionalLanguageContents](#)

**No messages were identified that directly use this data element**

## A.49 Data Element CPT-AgencyDesignator {CPT-141}

### Use:

This data element is used to specify an optional agency alphanumeric identifier, which may be useful in some interfaces as a supplement to the agency number.

### Remarks:

### ASN1:

CPT-AgencyDesignator ::= FOOTNOTE

### The following data frames directly use this data element:

[CCAnnouncementIden](#)  
[CCCannedMsgIden](#)  
[CCCannedMsgTakeListIden](#)  
[CCDestinationMessageIden](#)  
[CCTakeIden](#)  
[CCTrainDetectorIden](#)  
[CPTAgreementIden](#)  
[CPTAirConditionerIden](#)  
[CPTConstructionPermitIden](#)  
[CPTEmployeeIden](#)  
[CPTEngineIden](#)  
[CPTFacilityEntranceIden](#)  
[CPTGenericIden](#)  
[CPTIntersectionIden](#)  
[CPTOperatorBaseIden](#)  
[CPTOperatorIden](#)  
[CPTOrganizationalUnitIden](#)  
[CPTPhotographIden](#)  
[CPTShelterIden](#)  
[CPTStoppointIden](#)  
[CPTTrainIden](#)  
[CPTTransferClusterIden](#)  
[CPTTransitFacilityIden](#)  
[CPTTransmissionIden](#)  
[CPTTruckIden](#)  
[CPTVehicleIden](#)  
[FCFarePolicyIden](#)  
[FCFareZoneIden](#)  
[IMIncidentIden](#)  
[PIAmenityIden](#)  
[PIGTFSAgency](#)  
[PIGTFSRoutes](#)  
[PIGeoZoneIden](#)  
[PIServiceBulletinIden](#)  
[PISignIden](#)  
[PITravelerIden](#)  
[SCHActivationIden](#)  
[SCHBlockIden](#)  
[SCHEventIden](#)

[SCHNoteIden](#)  
[SCHPatternIden](#)  
[SCHPatternSegmentIden](#)  
[SCHRosterIden](#)  
[SCHRoutenIden](#)  
[SCHRUnIden](#)  
[SCHTimepointIden](#)  
[SCHTripIden](#)  
[SPFeatureIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.50 Data Element CPT-AgencyID {CPT-3}

**Use:**

A unique identifier assigned to a transit property.

**Remarks:**

**ASN1:**

CPT-AgencyID ::= IDENL

**The following data frames directly use this data element:**

[CCAnnouncementIden](#)  
[CCCannedMsgIden](#)  
[CCCannedMsgTakeListIden](#)  
[CCDestinationMessageIden](#)  
[CCTakeIden](#)  
[CCTrainDetectorIden](#)  
[CCWorkOrder](#)  
[CPTAgreementIden](#)  
[CPTAirConditionerIden](#)  
[CPTConstructionPermitIden](#)  
[CPTEmployeeIden](#)  
[CPTEngineIden](#)  
[CPTFacilityEntranceIden](#)  
[CPTFileApplicability](#)  
[CPTGenericIden](#)  
[CPTIntersectionIden](#)  
[CPTOperatorBaseIden](#)  
[CPTOperatorIden](#)  
[CPTOrganizationalUnitIden](#)  
[CPTPhotographIden](#)  
[CPTShelterIden](#)  
[CPTStoppoint](#)  
[CPTStoppointIden](#)  
[CPTTrainIden](#)  
[CPTTransferClusterIden](#)

[CPTTransitFacilityIden](#)  
[CPTTransmissionIden](#)  
[CPTTruckIden](#)  
[CPTVehicleIden](#)  
[FCFarePolicyIden](#)  
[FCFareZoneIden](#)  
[IMIncident](#)  
[IMIncidentIden](#)  
[PIAccessibility](#)  
[PIAgencyProfile](#)  
[PIAgencyStaticFile](#)  
[PIAmenityIden](#)  
[PIAnnouncement](#)  
[PIGeoZoneIden](#)  
[PIParkingFacility](#)  
[PIServiceBulletinIden](#)  
[PISignIden](#)  
[PITravelerIden](#)  
[PITripRequestFareConstraints](#)  
[PIXMLTimetable](#)  
[SCHActivationIden](#)  
[SCHBlockIden](#)  
[SCHCalendarEntry](#)  
[SCHEventIden](#)  
[SCHNoteIden](#)  
[SCHPatternIden](#)  
[SCHPatternSegmentIden](#)  
[SCHRosterIden](#)  
[SCHRouteIden](#)  
[SCHRUnIden](#)  
[SCHTimepointIden](#)  
[SCHTimetableVersion](#)  
[SCHTripIden](#)  
[SCHUnassignedOperator](#)  
[SPFeatureIden](#)

The following messages directly use this data element:

[CcLR](#)  
[PiAccessibilityList](#)  
[PiAccessibilityListSub](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiAnnouncementsList](#)  
[PiAnnouncementsListSub](#)  
[PiGTFSData](#)  
[PiGTFSDataSub](#)  
[PiGeoZoneList](#)  
[PiGeoZoneListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)  
[SchMasterScheduleVersion](#)  
[SchMasterScheduleVersionSub](#)

## A.51 Data Element CPT-AgencyName {CPT-128}

### Use:

Provide the name of a transit agency, or other government agency.

### Remarks:

### ASN1:

CPT-AgencyName ::= NAME30

**The following data frames directly use this data element:**

[PIAgencyProfile](#)  
[PIAgencyStaticFile](#)  
[PIFoundItem](#)  
[PIGTFSAgency](#)

**The following messages directly use this data element:**

[PiAgencyList](#)  
[PiAgencyListSub](#)

## A.52 Data Element CPT-AgreementID {CPT 85}

### Use:

Unque aplha numeric identifier assigned to an Agreement by a public transit agency.

### Remarks:

### ASN1:

CPT-AgreementID ::= NAME30

**The following data frames directly use this data element:**

[CPTAgreementIden](#)

**No messages were identified that directly use this data element**

### A.53 Data Element CPT-AgreementName {CPT-86}

**Use:**

To identify an agency-assigned name to an Agreement

**Remarks:**

**ASN1:**

CPT-AgreementName ::= NAME30

**The following data frames directly use this data element:**

[CPTAgreementIden](#)

**No messages were identified that directly use this data element**

### A.54 Data Element CPT-AirConditionerID {CPT-152}

**Use:**

Unique identifier within an agency for an air conditioner usually for a vehicle

**Remarks:**

**ASN1:**

CPT-AirConditionerID ::= NAME40

**The following data frames directly use this data element:**

[CPTAirConditionerIden](#)

**No messages were identified that directly use this data element**

## A.55 Data Element CPT-ApplicationID {CPT-107}

### Use:

Provide a unique identifier for an application within a transit agency or within an external agency with which the transit agency exchanges information.

### Remarks:

#### ASN1:

CPT-ApplicationID ::= IDENL

**The following data frames directly use this data element:**

[CCConnProtLogEntry](#)  
[CCWheelchairLogEntry](#)  
[CPTPushHeader](#)  
[CPTSubscriptionHeader](#)  
[OBHealthStatusRecord](#)  
[PIAgencyStaticFile](#)

**The following messages directly use this data element:**

[FcReportCashboxEventAck](#)  
[FcReportVaultEventAck](#)  
[SchReportValidationErrors](#)  
[SchReportValidationErrorsAck](#)

## A.56 Data Element CPT-Boolean {CPT-105}

### Use:

Provide a true/false value in a message.

### Remarks:

0-False

1-True

#### ASN1:

CPT-Boolean ::= BOOLEAN

**The following data frames directly use this data element:**

[CCAlarm](#)  
[CCCannedAnnouncementRecord](#)

[CCConnProtLogEntry](#)  
[CCEngineStartStop](#)  
[CCJ1939FaultCode](#)  
[CCSignOnOff](#)  
[CCStopAnnunciationRecord](#)  
[CCWorkOrder](#)  
[CPTPTVehicle](#)  
[CPTPushHeader](#)  
[FCCashBoxReconciliation](#)  
[IMIncidentInfo](#)  
[OBBoardAlightRecord](#)  
[OBStoppointRecord](#)  
[PIEventAnnouncement](#)  
[PIFoundItem](#)  
[PIGTFSCalendar](#)  
[PIGTFSFareAttributes](#)  
[PIGTFSFrequencies](#)  
[PIGTFSStops](#)  
[PILostItem](#)  
[PIServiceDelayed](#)  
[PITripRequest](#)  
[SCHNoteInfo](#)  
[SCHPullInOutInfo](#)  
[SCHRosterDayEntry](#)  
[SCHTransferInfo](#)  
[SPFeatureGeometry](#)  
[SPNoDimCircle](#)  
[SPNoDimPolygon](#)  
[TSPEventLogEntry](#)  
[TSPIntersectionEntry](#)  
[TSPStatus](#)

The following messages directly use this data element:

[CcChangeAssignmentsAck](#)  
[CcConnProtAck](#)  
[CcConnProtAppr](#)  
[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcDispatchMessageAck](#)  
[CcOperatorMessageAck](#)  
[CcOperatorSignOffAck](#)  
[CcOperatorSignOnAck](#)  
[CcPTVInspection](#)  
[CcPTVInspectionAck](#)  
[CcPTVTripResponse](#)  
[CcRemotePTVDisable](#)  
[CcRemotePTVDisableAck](#)  
[CcRemotePTVEnable](#)  
[CcRemotePTVEnableAck](#)  
[CcReportServiceEvent](#)  
[CcTriggerCannedAnnouncement](#)  
[CcTriggerCannedAnnouncementAck](#)  
[CcVehicleStartupReport](#)  
[CcWorkOrderAssignAck](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptLoadControl](#)  
[CptStoppointList](#)

CptStoppointListSub  
FcCommandDisableEquip  
FcCommandDisableEquipAck  
FcCommandEnableEquip  
FcCommandEnableEquipAck  
ImAlarmCancel  
ImCommandIncidentResponseAck  
ImIncidentUpdate  
ImSilentAlarm  
ImSilentAlarmAck  
ObLocation  
ObWLANStatus  
PiAckSubscriptionUpdate  
PiAgencyFiles  
PiAgencyFilesSub  
PiAgencyList  
PiAgencyListSub  
PiPushTextTimetable  
PiReportAckProfileUpdate  
PiRouteList  
PiRouteListSub  
PiStoppointPatternsSub  
PiTextTimetable  
PiTextTimetableSub  
SchCommandScheduleChangeResponse  
SchPatternListSub  
SchRouteSchedule  
SchRouteScheduleSub  
SpGIS  
SpGISSub

### A.57 Data Element CPT-ChannelAttribute {CPT-5}

#### Use:

An attribute associated with a radio channel.

#### Remarks:

#### ASN1:

```
CPT-ChannelAttribute ::= ENUMERATED {
    trunk                      (1),
    conventional                (2),
    full                       (3),
    half                       (4),
    quarter                     (5),
    digital                     (6),
    analog                      (7),
    voice                       (8),
    data                        (9),
    -- 10-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTChannel1](#)

**No messages were identified that directly use this data element**

## A.58 Data Element CPT-ChannelBand {CPT-6}

**Use:**

The frequency band of the channel. This term is expressed in kilohertz (kHz). For example, the value of a 25 kHz channel is 25.

**Remarks:**

**ASN1:**

CPT-ChannelBand ::= ULONG

**The following data frames directly use this data element:**

[CPTChannel1](#)

**No messages were identified that directly use this data element**

## A.59 Data Element CPT-ChannelID {CPT-7}

### Use:

The channel number of the radio. A channel is a unique number that defines the range of a frequency band.

### Remarks:

### ASN1:

CPT-ChannelID ::= UBYTE

**The following data frames directly use this data element:**

[CPTChannel](#)

**The following messages directly use this data element:**

[CcAcceptCallRequest](#)  
[CcDispatchCallSetup](#)

## A.60 Data Element CPT-ChannelName {CPT-8}

### Use:

The name given to a radio channel as designated by a transit agency.

### Remarks:

### ASN1:

CPT-ChannelName ::= NAME30

**The following data frames directly use this data element:**

[CPTChannel](#)

**No messages were identified that directly use this data element**

## A.61 Data Element CPT-Color {CPT-135}

### Use:

Specify colors of objects or items in a document, map or drawing.

### Remarks:

### ASN1:

```
CPT-Color ::= ENUMERATED {
    white                      (1),
    black                      (2),
    red                        (3),
    blue                       (4),
    green                      (5),
    violet                     (6),
    purple                     (7),
    gray                       (8),
    pink                       (9),
    yellow                     (10),
    orange                     (11),
    brown                      (12),
    silver                     (13),
    lime                       (14),
    gold                       (15),
    light-red                  (16),
    light-blue                 (17),
    light-green                (18),
    light-violet               (19),
    light-purple               (20),
    light-gray                 (21),
    light-pink                 (22),
    light-yellow               (23),
    light-orange               (24),
    light-brown                (25),
    dark-red                   (27),
    dark-blue                  (28),
    dark-green                 (29),
    dark-violet                (30),
    dark-purple                (31),
    dark-gray                  (32),
    dark-pink                  (33),
    dark-yellow                (34),
    dark-orange                (35),
    dark-brown                 (36),
    -- 37-100 reserved
    -- 120-130 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[SPFeature](#)  
[SPGeometricSymbol](#)

**No messages were identified that directly use this data element**

## A.62 Data Element CPT-CommandID {CPT-118}

### Use:

Provide a unique identifier for commands between a controller and a controlled device.

### Remarks:

### ASN1:

CPT-CommandID ::= IDENL

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcChangeAssignments](#)  
[CcChangeAssignmentsAck](#)  
[CcDispatchMessage](#)  
[CcDispatchMessageAck](#)  
[CcOpenWorkOrderAck](#)  
[CcOpenWorkorder](#)  
[CcPTVTripResponse](#)  
[CcPTVTrips](#)  
[CcRemotePTVDisable](#)  
[CcRemotePTVDisableAck](#)  
[CcRemotePTVEnable](#)  
[CcRemotePTVEnableAck](#)  
[CcTriggerCannedAnnouncement](#)  
[CcTriggerCannedAnnouncementAck](#)  
[CptCommandTimeUpdate](#)  
[FcCommandDisableEquip](#)  
[FcCommandDisableEquipAck](#)  
[FcCommandEnableEquip](#)  
[FcCommandEnableEquipAck](#)  
[ImCommandIncidentResponse](#)  
[ImCommandIncidentResponseAck](#)  
[PiMailingResponse](#)  
[PiSendMailing](#)  
[SchCommandScheduleChange](#)  
[SchCommandScheduleChangeResponse](#)

### A.63 Data Element CPT-CompanyName {CPT-132}

**Use:**

Identify the name of a company (e.g. a contractor)

**Remarks:**

**ASN1:**

CPT-CompanyName ::= NAME40

**The following data frames directly use this data element:**

[CPTAssignedContractor](#)  
[PIGTFSFeedInfo](#)

**No messages were identified that directly use this data element**

### A.64 Data Element CPT-ConstructionPermitID {CPT 81}

**Use:**

A unique alphanumeric identifier assigned to a Construction Permit by a public transit agency.

**Remarks:**

**ASN1:**

CPT-ConstructionPermitID ::= NAME30

**The following data frames directly use this data element:**

[CPTConstructionPermitIden](#)

**No messages were identified that directly use this data element**

## A.65 Data Element CPT-ConstructionPermitName {CPT 82}

### Use:

To identify an agency-assigned name to a construction permit

### Remarks:

#### ASN1:

CPT-ConstructionPermitName ::= NAME30

**The following data frames directly use this data element:**

[CPTConstructionPermitIden](#)

No messages were identified that directly use this data element

## A.66 Data Element CPT-Date {CPT-138}

### Use:

Define a date.

### Remarks:

Can be either encoded using XML date type or narrowband encoded using a ULONG constrained to the range 0...99991231. The narrowband value is masked by digits as CCYYMMDD where CC represents the century, YY represents the century, YY represents the year MM represents the month, and DD represents the day of the month.

#### ASN1:

CPT-Date ::= DATE

**The following data frames directly use this data element:**

[CCHistoricalAdherenceRecord](#)

[CCTripCancellationRecord](#)

[CPTEmployee](#)

[CPTPTVehicle](#)

[CPTStoppoint](#)

[CPTSubscriptionHeader](#)

[CPTTransitFacility](#)

[FCDayDefinition](#)

[PIAccessibility](#)

[PIAmenity](#)

[PICustomerProfile](#)

[PIGTFSCalendar](#)  
[PIGTFSCalendarDates](#)  
[PIGTFSSecondaryFeedInfo](#)  
[SCHCalendarEntry](#)  
[SCHPullInOutInfo](#)  
[SCHServiceAtStop](#)  
[SCHTimetableVersion](#)  
[SCHTransferInfo](#)  
[SCHTripDetailInfo](#)  
[SCHUnassignedOperator](#)  
[SCHUnassignedVehicle](#)

**The following messages directly use this data element:**

[CcPTVTrips](#)  
[FcFareDataPush](#)  
[FcFareLoadData](#)  
[FcFareZonePush](#)  
[FcFareZones](#)  
[PiTextTimetableSub](#)  
[SchCalendar](#)  
[SchCalendarSub](#)  
[SchOperatorAssignmentListSub](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchPushRoster](#)  
[SchRosterList](#)  
[SchRosterListSub](#)  
[SchStopServiceList](#)  
[SchStopServiceListSub](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)  
[SchUnassignedOperatorList](#)  
[SchUnassignedOperatorListSub](#)  
[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)  
[SchVehicleAssignmentListSub](#)

## A.67 Data Element CPT-DateTime {CPT-12}

### Use:

The date and time.

### Remarks:

### ASN1:

CPT-DateTime ::= DATETIME

**The following data frames directly use this data element:**

[CCAlarm](#)  
[CCBlockWorkRecord](#)  
[CCConnProtLogEntry](#)  
[CCEngineStartStop](#)  
[CCEventRecord](#)  
[CCLogOffOperator](#)  
[CCLogOnOperator](#)  
[CCOffRouteTrack](#)  
[CCOperatingRecord](#)  
[CCOperatorAssignmentChange](#)  
[CCPTVLocation](#)  
[CCPollResponseContents](#)  
[CCPullInReport](#)  
[CCPullOutReport](#)  
[CCRRouteDeviationRecord](#)  
[CCSignOnOff](#)  
[CCTrainDefect](#)  
[CCVehicleAssignmentChange](#)  
[CCVehicleMechRecord](#)  
[CCVehiclePassRecord](#)  
[CCVideoRecord](#)  
[CCWOUUpdate](#)  
[CCWheelchairLogEntry](#)  
[CCWorkOrder](#)  
[CPTLoadFileHeader](#)  
[CPTPTVehicle](#)  
[CPTPushHeader](#)  
[CPTRowMetaRecord](#)  
[CPTUploadFileHeader](#)  
[FCAccruedTransferRecord](#)  
[FCBoardingAightingRecord](#)  
[FCCashBoxContents](#)  
[FCCashBoxEvent](#)  
[FCCashBoxReconciliation](#)  
[FCCComponentEventInstance](#)  
[FCCComponentEventStatusReport](#)  
[FCDayTimeInterval](#)  
[FCFareDefinitionRecord](#)  
[FCFareboxAccessPermission](#)  
[FCPassengerCountRecord](#)  
[FCRevenueRecord](#)  
[FCTransactionRecord](#)

[FCTurnstileCountRecord](#)  
[FCVaultContents](#)  
[FCVaultEvent](#)  
[IMIncident](#)  
[IMResponseUnit](#)  
[IMTrafficImpact](#)  
[OBBoardAlightRecord](#)  
[OBParameterDumpEntry](#)  
[OBSWDataLoadID](#)  
[OBStoppointRecord](#)  
[PIAgencyStaticFile](#)  
[PIAvailablePeriod](#)  
[PICustSubscription](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[PIRecurringTrip](#)  
[PIRouteInfo](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PIServiceBulletin](#)  
[PIServiceDelayed](#)  
[PITravelerProfile](#)  
[SCHActualRunTime](#)  
[SCHConsistChangeEvent](#)  
[SCHPullInOutInfo](#)  
[SCHRoutVersion](#)  
[SCHServiceAtStop](#)  
[SCHTripDetailInfo](#)  
[SCHUnassignedOperator](#)  
[SCHUnassignedVehicle](#)  
[TSPEventLogEntry](#)  
[TSPStatus](#)

**The following messages directly use this data element:**

[CcAckManualAlarm](#)  
[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[CcCancelDetour](#)  
[CcCancelTrips](#)  
[CcChangeAssignments](#)  
[CcConnProtAck](#)  
[CcConnProtAppr](#)  
[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcDispatchMessage](#)  
[CcDispatchMessageAck](#)  
[CCLR](#)  
[CcLocationReport](#)  
[CcManualAlarm](#)  
[CcNotifyDetour](#)  
[CcOperatingData](#)  
[CcOperatingDataSub](#)  
[CcOperatorMessage](#)  
[CcOperatorMessageAck](#)  
[CcPTVAdherence](#)  
[CcPTVInspection](#)  
[CcPTVInspectionAck](#)  
[CcPTVehicleParameter](#)

[CcPassengerAlarm](#)  
[CcPassengerAlarmAck](#)  
[CcPollResults](#)  
[CcRemotePTVDisable](#)  
[CcRemotePTVDisableAck](#)  
[CcRemotePTVEnable](#)  
[CcRemotePTVEnableAck](#)  
[CcReportPullIns](#)  
[CcReportPullInsAck](#)  
[CcReportPullOuts](#)  
[CcReportPullOutsAck](#)  
[CcReportTrainInitialization](#)  
[CcReportTrainPassage](#)  
[CcReportTrainTermination](#)  
[CcTravelerAlarm](#)  
[CcTravelerAlarmAck](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogSub](#)  
[CcTriggerCannedAnnouncement](#)  
[CcTriggerCannedAnnouncementAck](#)  
[CcVehicleShutdownReport](#)  
[CcVehicleStartupReport](#)  
[CcVideoFeed](#)  
[CcVideoFeedSub](#)  
[CcVideoImages](#)  
[CcVideoImagesSub](#)  
[CcWheelchairAck](#)  
[CcWheelchairAppr](#)  
[CcWheelchairDeny](#)  
[CcWheelchairPickup](#)  
[CcWheelchairReq](#)  
[CcWorkOrderAssign](#)  
[CcWorkOrderAssignAck](#)  
[CcWorkOrderUpdate](#)  
[CcWorkOrderUpdateAck](#)  
[CptCommandTimeUpdate](#)  
[CptEmployeeList](#)  
[CptEmployeeListSub](#)  
[CptFleetSubsets](#)  
[CptFleetSubsetsSub](#)  
[CptLoadControl](#)  
[CptPushFailure](#)  
[CptPushSuccess](#)  
[CptShelterList](#)  
[CptShelterListSub](#)  
[CptStoppointList](#)  
[CptStoppointListSub](#)  
[CptStoppointSubsets](#)  
[CptStoppointSubsetsSub](#)  
[CptTransferClusterList](#)  
[CptTransferClusterListSub](#)  
[CptVehicleInventoryListSub](#)  
[CptWatchdogTimer](#)  
[FcCommandDisableEquip](#)  
[FcCommandDisableEquipAck](#)  
[FcCommandEnableEquip](#)  
[FcCommandEnableEquipAck](#)  
[FcEquipmentSubsets](#)  
[FcEquipmentSubsetsSub](#)  
[FcFareHealth](#)  
[FcFareZones](#)  
[FcPassengerData](#)

[FcPassengerDataSub](#)  
[FcReportCashboxEvent](#)  
[FcReportCashboxEventAck](#)  
[FcReportReconcileCashbox](#)  
[FcReportReconcileCashboxAck](#)  
[FcReportValidationErrors](#)  
[FcReportVaultEvent](#)  
[FcReportVaultEventAck](#)  
[FcRevenueData](#)  
[FcRevenueDataSub](#)  
[ImAlarmCancel](#)  
[ImCommandIncidentResponse](#)  
[ImCommandIncidentResponseAck](#)  
[ImIncidentHistory](#)  
[ImIncidentHistorySub](#)  
[ImIncidentUpdate](#)  
[ImInitialReportAck](#)  
[ImSilentAlarm](#)  
[ImSilentAlarmClose](#)  
[ObLocation](#)  
[ObNotifyTripStart](#)  
[ObReportHealth](#)  
[ObReportHealthAck](#)  
[PiAckNewProfile](#)  
[PiAckSubscriptionUpdate](#)  
[PiAmenitiesList](#)  
[PiAmenitiesListSub](#)  
[PiPushTextTimetable](#)  
[PiReportAckProfileUpdate](#)  
[PiReportFoundItems](#)  
[PiReportFoundItemsAck](#)  
[PiReportLostItems](#)  
[PiReportLostItemsAck](#)  
[PiReportNewProfile](#)  
[PiReportProfileUpdate](#)  
[PiReportSubscriptionUpdate](#)  
[PiTextTimetable](#)  
[PiTextTimetableSub](#)  
[SchActualRunningTimes](#)  
[SchActualRunningTimesSub](#)  
[SchBlockScheduleList](#)  
[SchBlockScheduleListSub](#)  
[SchBlockSubsets](#)  
[SchBlockSubsetsSub](#)  
[SchCommandScheduleChange](#)  
[SchCommandScheduleChangeResponse](#)  
[SchMasterScheduleVersion](#)  
[SchMasterScheduleVersionSub](#)  
[SchOperatorAssignmentList](#)  
[SchOperatorAssignmentListSub](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPatternListSub](#)  
[SchPushBlockSchedule](#)  
[SchPushPatterns](#)  
[SchPushRouteSchedule](#)  
[SchPushRunSchedule](#)  
[SchReportValidationErrors](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleSub](#)  
[SchRunScheduleList](#)  
[SchRunScheduleListSub](#)

[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SchTimepointList](#)  
[SchTimepointListSub](#)  
[SchVehicleAssignmentList](#)  
[SchVehicleAssignmentListSub](#)  
[ScpEventLog](#)  
[ScpEventLogSub](#)  
[SpGIS](#)  
[SpGISPush](#)  
[SpGISSub](#)  
[TspPRGInputsCC](#)

## A.68 Data Element CPT-DayofWeek {CPT-15}

### Use:

A day of the week.

### Remarks:

### ASN1:

```
CPT-DayofWeek ::= ENUMERATED {
  Sunday          (1),
  Monday          (2),
  Tuesday         (3),
  Wednesday        (4),
  Thursday         (5),
  Friday           (6),
  Saturday          (7),
  -- 8-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[SCHRosterDayEntry](#)

No messages were identified that directly use this data element

## A.69 Data Element CPT-DetectorID {CPT-154}

### Use:

Uniquely identify a train detector within an agency.

### Remarks:

#### ASN1:

CPT-DetectorID ::= NAME40

#### The following data frames directly use this data element:

[CCTrainDetectorIden](#)

No messages were identified that directly use this data element

## A.70 Data Element CPT-Duration {CPT-101}

### Use:

Provide a type for defining a time interval. An illustrative use is to specify a time for periodic reporting.

### Remarks:

Interval is expressed in seconds or using XML duration.

#### ASN1:

CPT-Duration ::= DURATION

#### The following data frames directly use this data element:

[CCDetourRecord](#)  
[CCPollResponseContents](#)  
[CCStopAnnunciationRecord](#)  
[CPTSubscriptionHeader](#)  
[CPTTransferCluster](#)  
[FCFarePolicyRecord](#)  
[PEventAnnouncement](#)  
[PIGTFSFareAttributes](#)  
[PIGTFSFrequencies](#)  
[PIGTFSTransfers](#)  
[PIPTVDelayed](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PIServiceDelayed](#)

[SCHActualRunTime](#)  
[SCHOperatorPay](#)  
[SCHRRunningTimeEntry](#)  
[SCHTransferInfo](#)  
[SCHWaitingTime](#)

**The following messages directly use this data element:**

[CcAnnouncementInfo](#)  
[CcPTVAdherence](#)  
[CcPTVehicleParameter](#)  
[CcPTVehicleParameterSub](#)  
[CcPollParameters](#)  
[CcTriggerCannedAnnouncement](#)  
[CptCommandTimeUpdate](#)  
[ObLocation](#)

## A.71 Data Element CPT-EmplJobCat {CPT-20}

**Use:**

Job responsibility (category) of a transit agency employee.

**Remarks:**

**ASN1:**

```
CPT-EmplJobCat ::= ENUMERATED {
    fullTimeOperator          (1),
    partTimeOperator          (2),
    conductor                 (3),
    engineer                  (4),
    maintenance                (5),
    supervisor                 (6), -- also manager
    revenueCollector           (7),
    dispatcher                 (8),
    -- 9-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CCLogOffOperator](#)  
[CCLogOnOperator](#)  
[CPTEmployee](#)

**The following messages directly use this data element:**

[CptEmployeeList](#)  
[CptEmployeeListSub](#)

## A.72 Data Element CPT-EmplJobCatDesc {CPT-21}

### Use:

The description of a transit agency employee's job category.

### Remarks:

### ASN1:

CPT-EmplJobCatDesc ::= FOOTNOTE

**The following data frames directly use this data element:**

[CPTEmployee](#)

**No messages were identified that directly use this data element**

## A.73 Data Element CPT-EmployeeID {CPT-19}

### Use:

A unique number associated with a transit agency employee within an agency.

### Remarks:

### ASN1:

CPT-EmployeeID ::= NAME60

**The following data frames directly use this data element:**

[CPTEmployeeIden](#)  
[CPTOperatorIden](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcPTVInspectionAck](#)  
[CptEmployeeList](#)

## A.74 Data Element CPT-EmployeeTelephone {CPT-24}

### Use:

The telephone number of a transit employee.

### Remarks:

### ASN1:

CPT-EmployeeTelephone ::= TELEPHONE

**The following data frames directly use this data element:**

[CPTAssignedContractor](#)  
[CPTAssignedEmployee](#)  
[CPTEmployee](#)

**No messages were identified that directly use this data element**

## A.75 Data Element CPT-EngineID {CPT-157}

### Use:

Provide a unique alphanumeric identifier for an engine.

### Remarks:

### ASN1:

CPT-EngineID ::= NAME40

**The following data frames directly use this data element:**

[CPTEngineIden](#)

**No messages were identified that directly use this data element**

## A.76 Data Element CPT-ErrorCode {CPT-103}

### Use:

Provide a standardized encoding for errors types to be used in error messages.

### Remarks:

### ASN1:

```
CPT-ErrorCode ::= ENUMERATED {
    nullData                      (1),
    intentionalBlank                (2),
    deletedByDevice                 (3),
    msgUnavailable                  (4),
    illegalCalc                     (5),
    deviceMalfunction               (6),
    msgExpired                      (7),
    suppressedSecurity              (8),
    suppressedPrivacy                (9),
    unspecified                      (10),
    vehicleShutdown                  (11),
    unknownFile                     (12),
    receiverCantProcess             (13),
    incompleteMessage                (14),
    fileCorrupt                      (15),
    invalidPriority                  (51),
    invalidFrequency                 (52),
    invalidMode                      (53),
    invalidDeliveryVerification     (54),
    cantDecrypt                      (55),
    accessDenied                     (56),
    excessLatency                    (57),
    invalidMsgRef                   (58),
    timeExpired                      (59),
    dataUnavailable                  (60),
    dataExpired                      (61),
    valueOutOfRange                  (62),
    pubNotRdy                        (63), -- publisher is not ready to process the request.
    -- 64-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data element

The following messages directly use this data element:

[CcPTVTripResponse](#)  
[CptPushFailure](#)  
[CptSubErrorNotice](#)

## A.77 Data Element CPT-ErrorDescription {CPT-104}

### Use:

Provide a human readable description of an error condition.

### Remarks:

Content should be limited to printable ASCII characters and blanks

### ASN1:

```
CPT-ErrorDescription ::= FOOTNOTE
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CptSubErrorNotice](#)

## A.78 Data Element CPT-FacilityDesc {CPT-71}

### Use:

A description of a facility owned and/or operated by a public transportation authority.

### Remarks:

.

### ASN1:

```
CPT-FacilityDesc ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CPTTransitFacility](#)

**No messages were identified that directly use this data element**

## A.79 Data Element CPT-FacilityEntranceID {CPT 83}

### Use:

Unque aplha numeric identifier assigned to a Facility Entrance by a public transit agency.

### Remarks:

### ASN1:

```
CPT-FacilityEntranceID ::= NAME30
```

**The following data frames directly use this data element:**

[CPTFacilityEntranceIden](#)

**No messages were identified that directly use this data element**

## A.80 Data Element CPT-FacilityEntranceName {CPT-84}

### Use:

To identify an agency-assigned name to a Facility Entrance

### Remarks:

### ASN1:

```
CPT-FacilityEntranceName ::= NAME30
```

**The following data frames directly use this data element:**

[CPTFacilityEntranceIden](#)

**No messages were identified that directly use this data element**

## A.81 Data Element CPT-FareZoneID {CPT-25}

### Use:

A unique number used to reference a geographic area with which a specified fare is associated. (The fare may be based on trips between two fare zones or as a fixed value at Stop Points contained in the zone.)

### Remarks:

#### ASN1:

```
CPT-FareZoneID ::= NAME30
```

**The following data frames directly use this data element:**

[FCFareZoneIden](#)

**No messages were identified that directly use this data element**

## A.82 Data Element CPT-FeatureType {CPT-146}

### Use:

Define the type of a feature.

### Remarks:

Feature types maybe used to identify the type of an identifier, to identify map layers, or in other contexts where heterogeneous items need to be classified.

#### ASN1:

```
CPT-FeatureType ::= ENUMERATED {
    street                      (1),
    highway                     (2),
    intersection                (3),
    ramp                        (4),
    transit-sign                (5),
    non-transit-sign            (6),
    ptv-garage                  (7),
    stoppoint                   (8),
    timepoint                   (9),
    shelter                     (10),
    tracks                      (11), -- rail e.g. commuter rail, light rail
    parking-garage              (12),
    park-and-ride               (13),
    pattern                     (14),
    pattern-segment              (15),
    route                       (16),
    incident                    (17),
```

```
landmark          (18),
origin            (19),
destination       (20),
fare-zone         (21),
water             (22), -- rivers, lakes, streams etc.
parking-lot       (23),
transit-facility  (24), -- of any kind
fire-hydrant      (25),
city              (26),
county            (27), -- or borough
state              (28),
town              (29),
employee          (30),
operator-base     (31),
operator           (32),
org-unit          (33),
transfer-cluster   (34),
vehicle            (35),
fare-policy        (36),
amenity            (38),
announcement       (39),
service-bulletin   (40),
geo-zone          (41),
traveler          (42),
block              (43), -- vehicle assignment
note               (44), -- scheduling note
run                (45),
trip               (46), -- scheduled trip
-- 47-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTGenericIden](#)  
[SPFeature](#)  
[SPGISLayer](#)

**The following messages directly use this data element:**

[CcGISFile](#)  
[PiItineraryMap](#)  
[PiItineraryMapSub](#)  
[SpGIS](#)  
[SpGISSub](#)

## A.83 Data Element CPT-FileContent {CPT-148}

### Use:

Convey the binary contents of a file, regardless of file type.

### Remarks:

#### ASN1:

```
CPT-FileContent ::= MEMLONG
```

The following data frames directly use this data element:

[PIAgencyStaticFile](#)

No messages were identified that directly use this data element

## A.84 Data Element CPT-FileIdentifier {CPT-119}

### Use:

Identify a file to be exchanged.

### Remarks:

#### ASN1:

```
CPT-FileIdentifier ::= ENUMERATED {
  component-application-software (1),
  vehicle-assignments-file      (2),
  operator-assignments-file    (3),
  route-schedule-file         (4),
  patterns-file                (5),
  sign-and-annunciation-file (6),
  timepoints-file              (7),
  stoppoints-file              (8),
  canned-text-messages-file   (9), -- for mdt canned messages
  component-proprietary-configuration (10),
  fare-definition-file        (11),
  tsp-business-rules-file     (12),
  map-image-file               (13), -- background map for mdt
  alarm-limits-file           (14),
  calendar-file                (15), -- day types
  master-schedule-file        (16),
  block-schedule-file         (17),
  run-schedule-file           (18),
  event-change-file           (19),
```

```
passenger-counter-file      (101),
video-file                  (102), -- includes field video
audio-file                  (103), -- includes field audio
vehicle-movement-log-file  (104),
fare-collection-log-file   (105),
vehicle-parameters-log-file (106),
tsp-log-file                (107),
traveler-request-log       (108),
-- 110-150 reserved
-- 152-200 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTLoadFileHeader](#)  
[CPTPushHeader](#)  
[CPTUnloadFileHeader](#)

**The following messages directly use this data element:**

[FcReportValidationErrors](#)

## A.85 Data Element CPT-FileSize {CPT-120}

**Use:**

Define the length of a file in bytes. Knowledge of file length is useful in allocating memory to file storage in onboard components.

**Remarks:**

**ASN1:**

CPT-FileSize ::= ULONG

**The following data frames directly use this data element:**

[CPTLoadFileHeader](#)  
[CPTUnloadFileHeader](#)

**No messages were identified that directly use this data element**

## A.86 Data Element CPT-FileVersion {CPT-121}

### Use:

Provide a version identifier for a file to be transferred between a fixed business system and an onboard bus component.

### Remarks:

### ASN1:

```
CPT-FileVersion ::= ULONG
```

**The following data frames directly use this data element:**

[CPTLoadFileHeader](#)

[CPTPushHeader](#)

[CPTUnloadFileHeader](#)

**The following messages directly use this data element:**

[FcFareHealth](#)

[FcReportValidationErrors](#)

[FcReportValidationErrorsAck](#)

[SpGIS](#)

[SpGISPush](#)

[SpGISSub](#)

## A.87 Data Element CPT-FleetSubset {CPT-129}

### Use:

Identify an arbitrary grouping of PTVs, defined by a transit business system. Groupings do not have to be disjoint sets.

### Remarks:

### ASN1:

```
CPT-FleetSubset ::= IDENL
```

**The following data frames directly use this data element:**

[CPTFileApplicability](#)

[CPTFleetSubsetGroup](#)

**The following messages directly use this data element:**

[CcFleetMechanicalData](#)  
[CcFleetMechanicalDataSub](#)  
[CcFleetPassengerData](#)  
[CcFleetPassengerDataSub](#)  
[CptFleetSubsets](#)

## A.88 Data Element CPT-Footnote {CPT-26}

### Use:

A footnote that provides information about or exceptions to the context of the message.

### Remarks:

### ASN1:

CPT-Footnote ::= FOOTNOTE

The following data frames directly use this data element:

[CCCannedMsgDefinition](#)  
[CCDetourRecord](#)  
[CCEventRecord](#)  
[CCRouteWelcomeAnnouncement](#)  
[CCStopAnnunciationRecord](#)  
[CCTakeListItemDefinition](#)  
[CCWUUpdate](#)  
[CCWorkOrder](#)  
[CPTAirConditionerIden](#)  
[CPTAssignedContractor](#)  
[CPTAssignedEmployee](#)  
[CPTConstructionPermit](#)  
[CPTEmployee](#)  
[CPTEmployeeIden](#)  
[CPTEngineIden](#)  
[CPTFleetSubsetGroup](#)  
[CPTNeededSupplies](#)  
[CPTOperatorIden](#)  
[CPTPTVehicle](#)  
[CPTPTVehicleBase](#)  
[CPTPhotograph](#)  
[CPTRadioZone](#)  
[CPTStopPoint](#)  
[CPTStopPointAgreement](#)  
[CPTStopPointEntrance](#)  
[CPTStopPointSubsetGroup](#)  
[CPTTransmissionIden](#)  
[FCComponentEventInstance](#)  
[FCComponentEventStatusReport](#)  
[FCEquipmentGroup](#)  
[FCTurnstileCountRecord](#)  
[IMIIncident](#)  
[IMInjuryInfo](#)

[IMOtherVehicleInvolved](#)  
[IMPVehicleInvolved](#)  
[IMPerson](#)  
[IMResponseUnit](#)  
[OBHealthStatusRecord](#)  
[OBParameterID](#)  
[PIAgencyProfile](#)  
[PIAgencyStaticFile](#)  
[PIAmenity](#)  
[PIAnnouncement](#)  
[PICustSubscription](#)  
[PICustomerProfile](#)  
[PIEventAnnouncement](#)  
[PIFoundItem](#)  
[PIGTFSAgency](#)  
[PIGTFSFareAttributes](#)  
[PIGTFSFareRules](#)  
[PIGTFSSeedInfo](#)  
[PIGTFSRoutes](#)  
[PIGTFSShapes](#)  
[PIGTFSTops](#)  
[PIGTFSTrips](#)  
[PIGateBayAssignment](#)  
[PILostItem](#)  
[PIMap](#)  
[PIPTVDelayed](#)  
[PIRecurringTrip](#)  
[PIRouteInfo](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIServiceBulletin](#)  
[PIServiceDelayed](#)  
[PIXMLTimetable](#)  
[SCHBlockSubsetsGroup](#)  
[SCHPatternInfo](#)  
[SCHPullInOutInfo](#)  
[SCHValidationError](#)  
[SPIntDirection](#)  
[SPLocationConversionEntry](#)

The following messages directly use this data element:

[CcAnnouncementInfo](#)  
[CcDispatchMessage](#)  
[CcNotifyDetour](#)  
[CcOperatorMessage](#)  
[FcFareLoadData](#)  
[FcUnloadData](#)  
[ObNotifyMenu](#)  
[ObReportHealth](#)  
[PiAckSubscriptionUpdate](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiDirections](#)  
[PiNearestStopList](#)  
[PiProfile](#)  
[PiProfileSub](#)  
[PiReportAckProfileUpdate](#)  
[PiReportSubscriptionUpdate](#)

[SchCommandScheduleChange](#)  
[SchCommandScheduleChangeResponse](#)

## A.89 Data Element CPT-Frequency {CPT-27}

### Use:

The frequency of a radio wave expressed as the inverse of the period (1/T), or the number of repetitions per second; it is expressed in kilocycles per second or Hertz (kHz).

### Remarks:

frequency Units are expressed in kilo hertz (kHz).

### ASN1:

CPT-Frequency ::= ULONG

**The following data frames directly use this data element:**

[CPTChannel1](#)

**No messages were identified that directly use this data element**

## A.90 Data Element CPT-GenericCounter {CPT-117}

### Use:

Provide a count of an item.

### Remarks:

### ASN1:

CPT-GenericCounter ::= ULONG

**The following data frames directly use this data element:**

[CCActivateRouteAdherence](#)  
[CCPTVLocation](#)  
[CCTrainDefect](#)  
[CCVehicleMechRecord](#)  
[CCVideoRecord](#)  
[CPTGenericIden](#)  
[CPTPTVehicle](#)  
[CPTParkingSpace](#)  
[CPTRowMetaData](#)

[CPTStoppoint](#)  
[FCCashBoxContents](#)  
[FCFareDefinitionRecord](#)  
[FCFarePolicyRecord](#)  
[FCPassengerCountRecord](#)  
[FCTurnstileCountRecord](#)  
[FCVaultContents](#)  
[IMIncident](#)  
[OBStoppointRecord](#)  
[PIFoundItem](#)  
[PIGTFSCalendarDates](#)  
[PIGTFSRoutes](#)  
[PIGTFSShapes](#)  
[PIGTFSStopTimes](#)  
[PIGTFSStops](#)  
[PIGTFSTransfers](#)  
[PIGTFSTrips](#)  
[PIGateBayAssignment](#)  
[PISchedAdherenceCountdown](#)  
[PIStopPatternRouteEntry](#)  
[SCHConsistChangeEvent](#)  
[SCHtimeStoppoint](#)  
[SPFeatureGeometry](#)  
[SPScaleRange](#)  
[SPStreetSeg](#)  
[TSPIntersectionEntry](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcLocationReport](#)  
[CcPTVAlarmLimits](#)  
[CcPTVPerformanceData](#)  
[CcPollParameters](#)  
[CcRemotePTVDisable](#)  
[CcRemotePTVEnable](#)  
[CcReportTrainInitialization](#)  
[CcReportTrainPassage](#)  
[CcReportTrainPassageAck](#)  
[CcReportTrainTermination](#)  
[CcReportTrainTerminationAck](#)  
[CcTriggerCannedAnnouncement](#)  
[CcVideoFeed](#)  
[CcVideoFeedSub](#)  
[ObLocation](#)

## A.91 Data Element CPT-GenericDesignator {CPT-156}

### Use:

An alpha-numeric code that identifies an item.

### Remarks:

#### ASN1:

CPT-GenericDesignator ::= NAME30

**The following data frames directly use this data element:**

[CCTrainDetectorIden](#)  
[CPTAgreementIden](#)  
[CPTAirConditionerIden](#)  
[CPTConstructionPermitIden](#)  
[CPTEmployeeIden](#)  
[CPTEngineIden](#)  
[CPTFacilityEntranceIden](#)  
[CPTGenericIden](#)  
[CPTIntersectionIden](#)  
[CPTOperatorBaseIden](#)  
[CPTOperatorIden](#)  
[CPTOrganizationalUnitIden](#)  
[CPTPhotographIden](#)  
[CPTShelterIden](#)  
[CPTTrainIden](#)  
[CPTTransitFacilityIden](#)  
[CPTTransmissionIden](#)  
[CPTTruckIden](#)  
[FCFarePolicyIden](#)  
[FCFareZoneIden](#)  
[PIAmenityIden](#)  
[PIGeoZoneIden](#)  
[PITravelerIden](#)  
[SCHEventIden](#)  
[SCHPatternSegmentIden](#)

**No messages were identified that directly use this data element**

## A.92 Data Element CPT-GenericID {CPT-155}

### Use:

Provide a generic identification string.

### Remarks:

### ASN1:

CPT-GenericID ::= NAME60

**The following data frames directly use this data element:**

[CPTGenericIden](#)

**No messages were identified that directly use this data element**

## A.93 Data Element CPT-GenericName {CPT-147}

### Use:

Provide a generic name string which can be converted to a specific name string.

### Remarks:

This data element is initially intended for use in the CPTGenericIden data frame. It allows the generic names (e.g. name1, name2) to have a string data element that is convertible to specific name data elements contained in specific iden frames (e.g. vin, stoppoint name, person first name, etc.).

### ASN1:

CPT-GenericName ::= NAME40

**The following data frames directly use this data element:**

[CCTrainDetectorIden](#)

[CPTAirConditionerIden](#)

[CPTEngineIden](#)

[CPTGenericIden](#)

[CPTIntersectionIden](#)

[CPTTrainIden](#)

[CPTTransmissionIden](#)

[CPTTruckIden](#)

[IMIncidentIden](#)

[PIGTFSRoutes](#)

[SCHEventIden](#)

[SCHNoteIden](#)

[SCHRosterIden](#)  
[SCHRunIden](#)  
[SCHTripIden](#)

**No messages were identified that directly use this data element**

## A.94 Data Element CPT-GroupName {CPT-150}

### Use:

Name an agency defined grouping of items such as vehicles, fare equipment, or stoppoints.

### Remarks:

### ASN1:

CPT-GroupName ::= NAME40

**The following data frames directly use this data element:**

[CPTFleetSubsetGroup](#)  
[CPTStoppointSubsetGroup](#)  
[FCEquipmentGroup](#)  
[SCHBlockSubsetsGroup](#)

**No messages were identified that directly use this data element**

## A.95 Data Element CPT-HealthStatus {CPT-134}

### Use:

Define the health state of an ITS entity or component. This relates to electronics, sensors, activators displays - not to vehicles.

### Remarks:

### ASN1:

```
CPT-HealthStatus ::= ENUMERATED {
  health-ok                  (1),
  power-fal                  (2), -- shutting door last gasp report
  power-restore               (3), -- starting up
  out-of-paper                (4),
  memory-problem              (5),
  overheating                 (6),
  out-of-ink                  (7),
  high-humidity                (8),
  application-fault            (9),
  operating-system-fault       (10),
  cpu-fault                   (12),
  input-output-fault           (13),
  VAN-failure                 (14),
  hub-failure                  (15),
  radio-failure                (16),
  wlan-failure                 (17),
  sensor-failure               (18),
  display-failure              (19),
  touchscreen-failure          (20),
  keyboard-failure              (21),
  commanded-shutdown           (22),
  out-of-service                (23),
  mechanical-fault              (24),
  vibration                    (25),
  -- 26-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[OBHealthStatusRecord](#)

No messages were identified that directly use this data element

## A.96 Data Element CPT-IPAddress {CPT-127}

### Use:

Convey an internet protocol address.

### Remarks:

Can be used to convey a version 4 (32 bit) or version 6 (128 bit) address. The address is conveyed as a string according to the conventions specified in RFC 3513.

### ASN1:

CPT-IPAddress ::= NAME80

**The following data frames directly use this data element:**

[CCPollingGroupInit](#)  
[CPTLoadFileHeader](#)  
[CPTPTVehicle](#)  
[CPTUnloadFileHeader](#)  
[OBHealthStatusRecord](#)  
[PIAgencyStaticFile](#)  
[TSPIntersectionEntry](#)  
[TSPScenario5Intersection](#)  
[TSPTmsIntersectionParam](#)

**The following messages directly use this data element:**

[CptFilesToUnload](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## A.97 Data Element CPT-LanguageIdentifier {CPT-142}

### Use:

This data element conveys an ISO 639 language code.

### Remarks:

#### ASN1:

```
CPT-LanguageIdentifier ::= FOOTNOTE
```

The following data frames directly use this data element:

[CPTLanguageList](#)  
[PIGTFSAgency](#)

No messages were identified that directly use this data element

## A.98 Data Element CPT-LoadStopReason {CPT-124}

### Use:

Identify the reason that a file load or unload stopped.

### Remarks:

#### ASN1:

```
CPT-LoadStopReason ::= ENUMERATED {
  load-Complete          (0),
  communications-Error   (1),
  memory-Problem         (3),
  timeout                (4),
  badfile                (5),
  badFileRequest          (6),
  -- 127-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data element

The following messages directly use this data element:

[CptBadLoadRequest](#)  
[CptLoadControl](#)

### A.99 Data Element CPT-Manufacturer {CPT-29}

**Use:**

The name of the manufacturer of a component or piece of equipment.

**Remarks:**

**ASN1:**

CPT-Manufacturer ::= NAME20

**The following data frames directly use this data element:**

[CPTPTVehicle](#)  
[OBSWComponent](#)

**No messages were identified that directly use this data element**

### A.100 Data Element CPT-MillisecondDuration {CPT-116}

**Use:**

Define an interval in milliseconds. Required for expression of time intervals more accurately than with seconds.

**Remarks:**

**ASN1:**

CPT-MillisecondDuration ::= USHORT

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

CcPollParameters

**A.101 Data Element CPT-Mode {CPT-30}**

**Use:**

A transit service type category characterized by specific right-of-way, technological and operational features.

**Remarks:**

NTD (see [www.ntdprogram.com](http://www.ntdprogram.com))

AG- Automated Guideway

CC- Cable Car

CR- Commuter Rail

DR- Demand Responsive

FB- FerryBoat

HR- Heavy Rail

IP- Inclined Plane

JT- Jitney

LR- Light Rail

MB- Bus

MO- Monorail

PB- Publico

TB- Trolleybus

TR- Aerial Tramway

VP- Vanpool

OR- Other

DM- Dual Mode\*

PR- Personal rapid transit\*

WT-Water Taxi\*

TC - Taxi Cabs\*

HB-Hybrid Bus\*

MM - Multimodal\*

\* Not included in National Transit Database

**ASN1:**

CPT-Mode ::= NAME2

**The following data frames directly use this data element:**

[CPTPTVehicle](#)  
[CPTStoppoint](#)  
[FCFairPolicyRecord](#)  
[PIAccessibility](#)  
[PIAgencyProfile](#)  
[PINearestStop](#)  
[PIRouteInfo](#)  
[PIService](#)  
[PIXMLTimetable](#)  
[SCHOperatorAssignment](#)  
[SCHPatternInfo](#)  
[SCHTimeTableTrip](#)  
[SCHTimepointInfo](#)  
[SCHTimepointInterval](#)

**The following messages directly use this data element:**

[PiAccessibilityList](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)

## A.102 Data Element CPT-Model {CPT-31}

### Use:

The model number of a piece of equipment.

### Remarks:

### ASN1:

CPT-Model ::= NAME30

**The following data frames directly use this data element:**

[CPTPTVehicle](#)

**No messages were identified that directly use this data element**

## A.103 Data Element CPT-OperatorBaseID {CPT-32}

### Use:

A unique number for a base facility for transit vehicle operators within an agency.

### Remarks:

### ASN1:

CPT-OperatorBaseID ::= NAME30

**The following data frames directly use this data element:**

[CPTOperatorBaseIden](#)

**No messages were identified that directly use this data element**

## A.104 Data Element CPT-OperatorBaseName {CPT-33}

### Use:

The name of the facility from which operators are given their assignments.

### Remarks:

#### ASN1:

```
CPT-OperatorBaseName ::= NAME30
```

**The following data frames directly use this data element:**

[CPTOperatorBaseIden](#)

**No messages were identified that directly use this data element**

## A.105 Data Element CPT-OperatorDesignator {CPT-34}

### Use:

An alpha-numeric code that identifies a transit staff person who operates a transit vehicle within an agency.

### Remarks:

TCIP uses CPT-OperatorID as the unique numeric identifier for PTV operators. This element provides an additional, optional identifier which may be used to refer to an operator.

#### ASN1:

```
CPT-OperatorDesignator ::= FOOTNOTE
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcLR](#)

## A.106 Data Element CPT-OperatorID {CPT-35}

### Use:

Identifies a transit staff person who operates a transit vehicle within an agency.

### Remarks:

#### ASN1:

CPT-OperatorID ::= NAME30

**The following data frames directly use this data element:**

[CPTOperatorIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.107 Data Element CPT-OrgUnitDesc {CPT-36}

### Use:

The description of an organizational unit within a transit property.

### Remarks:

#### ASN1:

CPT-OrgUnitDesc ::= FOOTNOTE

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.108 Data Element CPT-OrgUnitID {CPT-37}

### Use:

A unique number that identifies different departments, service areas, groups, etc. within a public transportation (transit) organization.

### Remarks:

### ASN1:

CPT-OrgUnitID ::= IDENL

**The following data frames directly use this data element:**

[CPTOrganizationalUnitIden](#)

**No messages were identified that directly use this data element**

## A.109 Data Element CPT-OrgUnitName {CPT-38}

### Use:

The name of an organizational unit within a transit agency. The name is associated with CptOrganizationalUnitID. The intention of this data element is to allow for the association of operator bases to a larger unit such as region or service district.

### Remarks:

### ASN1:

CPT-OrgUnitName ::= NAME40

**The following data frames directly use this data element:**

[CPTOrganizationalUnitIden](#)

**No messages were identified that directly use this data element**

## A.110 Data Element CPT-PTVSeatingCapacity {CPT-51}

### Use:

Total number of seats available for transit riders on a public transportation vehicle.

### Remarks:

#### ASN1:

CPT-PTVSeatingCapacity ::= UBYTE

#### The following data frames directly use this data element:

[CPTPTVehicle](#)

No messages were identified that directly use this data element

## A.111 Data Element CPT-PTVStandingCapacity {CPT-52}

### Use:

The permissible number of people that can legally occupy (standing and seated) a public transportation vehicle while it is moving.

### Remarks:

#### ASN1:

CPT-PTVStandingCapacity ::= USHORT

#### The following data frames directly use this data element:

[CPTPTVehicle](#)

No messages were identified that directly use this data element

## A.112 Data Element CPT-PTVWheelChairCapacity {CPT-53}

### Use:

Maximum number of spaces available for wheelchair tie-ins on a transit vehicle.

### Remarks:

### ASN1:

```
CPT-PTVWheelChairCapacity ::= UBYTE
```

### The following data frames directly use this data element:

[CPTPTVehicle](#)

No messages were identified that directly use this data element

## A.113 Data Element CPT-PTVehicleAttribute {CPT-46}

### Use:

The attributes and/or amenities that are installed on a public transportation vehicle.

### Remarks:

### ASN1:

```
CPT-PTVehicleAttribute ::= ENUMERATED {
  bikeRack          (1), -- Bike rack
  camera             (2), -- Surveillance camera
  tieDown            (3), -- Wheel chair tie-down
  lift               (4), -- Lift (wheel chair)
  skiRack            (5), -- Ski rack
  surfboardRack      (6), -- Surfboard rack
  concession          (7), -- Food service/ concession
  restroom            (8), -- Restroom
  farebox             (9), -- Farebox
  pos                (10), -- Point of sale
  change              (11), -- Change (for POS)
  rail-vehicle        (12), -- --vehicle is a rail vehicle
  -- 13-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

### The following data frames directly use this data element:

[CPTPTVehicle](#)  
[PIAccessibility](#)

**The following messages directly use this data element:**

[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)

### **A.114 Data Element CPT-PTVehicleBaseCapacity {CPT-47}**

**Use:**

The maximum number of vehicles that can be maintained at the vehicle base.

**Remarks:**

**ASN1:**

CPT-PTVehicleBaseCapacity ::= USHORT

**The following data frames directly use this data element:**

[CPTPTVehicleBase](#)

**No messages were identified that directly use this data element**

## A.115 Data Element CPT-PTVehicleBaseName {CPT-48}

### Use:

The name of the storage facility used for parking the public transportation vehicle and assigned pieces of work.

### Remarks:

.

### ASN1:

```
CPT-PTVehicleBaseName ::= NAME30
```

**The following data frames directly use this data element:**

[CPTTransitFacilityIden](#)

**No messages were identified that directly use this data element**

## A.116 Data Element CPT-PTVehicleType {CPT-50}

### Use:

A classification of public transport vehicles.

### Remarks:

### ASN1:

```
CPT-PTVehicleType ::= ENUMERATED {
    twentyfiveRevenue          (1), -- 25' Revenue
    thirtyRevenue               (2), -- 30' Revenue
    fortyRevenue                (3), -- 40' Revenue
    articulated                 (4), -- Articulated
    cng                         (5), -- CNG
    lng                         (6), -- LNG
    supervisor                  (7), -- Supervisor
    police                      (8), -- Police
    towTruck                     (9), -- Tow truck
    shelterService               (10), -- Shelter service truck
    van                          (11), -- Van
    passengerVehicle             (12), -- Passenger vehicle
    lightRail                    (13), -- Light rail car
    commuterRail                 (14), -- Commuter rail car
    heavyRail                   (15), -- Heavy rail car
    aircraft                     (16),
    ferry                        (17),
    transitPolice                 (18),
```

```
otherPolice          (19),
aEndCab            (20), -- rail car with A-end cab
bEndCab            (21), -- rail car with B-end cab
cCar               (22)  -- rail car with no cab
-- 23-127 reserved
-- 129-150 local use
}
```

**The following data frames directly use this data element:**

[CPTPTVehicle](#)  
[CPTPTVehicleBase](#)  
[SCHVehicleAssignment](#)

**The following messages directly use this data element:**

[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)

## A.117 Data Element CPT-PTVehicleTypeDesc {CPT-45}

### Use:

The description of a public transportation vehicle.

### Remarks:

NTD AB Articulated motor buses

AG Automated guide way vehicles

AO Automobiles

BA Motor buses, Class A (>35 seats)

BB Motor buses, Class B (25-35 seats)

BC Motor buses, Class C (<25 seats)

CC Cable Cars

DB Double decked buses

FB Ferryboats

### ASN1:

```
CPT-PTVehicleTypeDesc ::= NAME2
```

**The following data frames directly use this data element:**

[CPTVehicle](#)

**No messages were identified that directly use this data element**

## A.118 Data Element CPT-PadType {CPT-40}

### Use:

The type of surface at a Stop Point such as concrete that is connected to the sidewalk at a bus stop.

### Remarks:

### ASN1:

```
CPT-PadType ::= ENUMERATED {
    dirt                      (1),
    concreteWithNoWalk        (2), -- no connection to a sidewalk
    concreteStructure          (3), -- part of a structure
    concreteSidewalk           (4), -- part of a sidewalk
    asphaltShoulder            (5), -- shoulder of a road
    asphaltSeparate             (6), -- separate from a road or sidewalk
    brick                      (7),
    wood                       (8),
    -- 9-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTShelter](#)  
[CPTStopPoint](#)

**No messages were identified that directly use this data element**

## A.119 Data Element CPT-PersonFirstName {CPT-108}

### Use:

Provide the first name of a person.

### Remarks:

### ASN1:

CPT-PersonFirstName ::= NAME30

The following data frames directly use this data element:

[CPTAssignedContractor](#)  
[CPTEmployee](#)  
[CPTEmployeeIden](#)  
[CPTOperatorIden](#)  
[IMPerson](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[PITravelerIden](#)

No messages were identified that directly use this data element

## A.120 Data Element CPT-PersonLastName {CPT-110}

### Use:

Provide the last name of a person.

### Remarks:

### ASN1:

CPT-PersonLastName ::= NAME30

The following data frames directly use this data element:

[CPTAssignedContractor](#)  
[CPTEmployee](#)  
[CPTEmployeeIden](#)  
[CPTOperatorIden](#)  
[IMPerson](#)  
[PIFoundItem](#)  
[PILostItem](#)

[PITravelerIden](#)

**No messages were identified that directly use this data element**

### **A.121 Data Element CPT-PersonMiddleName {CPT-109}**

**Use:**

Provide the middle name of a person.

**Remarks:**

**ASN1:**

CPT-PersonMiddleName ::= NAME30

**The following data frames directly use this data element:**

[CPTAssignedContractor](#)  
[CPTEmployee](#)  
[CPTEmployeeIden](#)  
[CPTOperatorIden](#)  
[IMPerson](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[PITravelerIden](#)

**No messages were identified that directly use this data element**

## A.122 Data Element CPT-PhoneNumber {CPT-111}

### Use:

Provide a general purpose telephone number.

### Remarks:

### ASN1:

CPT-PhoneNumber ::= TELEPHONE

**The following data frames directly use this data element:**

[CPTEmployee](#)  
[PIAgencyProfile](#)  
[PIGTFSAgency](#)

**No messages were identified that directly use this data element**

## A.123 Data Element CPT-PhotographID {CPT-87}

### Use:

Unque aplha numeric identifier assigned to a photograph by a public transit agency.

### Remarks:

### ASN1:

CPT-PhotographID ::= NAME30

**The following data frames directly use this data element:**

[CPTPhotographIden](#)

**No messages were identified that directly use this data element**

## A.124 Data Element CPT-PhotographName {CPT-88}

### Use:

To identify an agency-assigned name to a photograph

### Remarks:

#### ASN1:

```
CPT-PhotographName ::= NAME30
```

**The following data frames directly use this data element:**

[CPTPhotographIden](#)

**No messages were identified that directly use this data element**

## A.125 Data Element CPT-PlatformType {CPT-41}

### Use:

The material used and the type of platform.

### Remarks:

#### ASN1:

```
CPT-PlatformType ::= ENUMERATED {
  woodLow                      (1),
  woodHigh                     (2),
  concretePad                  (3),
  concreteHigh                 (4),
  highBlocks                   (5),
  concreteRamp                 (6),
  -- 7-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTStoppoint](#)

**No messages were identified that directly use this data element**

## A.126 Data Element CPT-PriorityLevel {CPT-43}

### Use:

A unique number assigned by a transit agency which defines the urgency of the response to an event.

### Remarks:

A "1" assumes the greatest priority and a 255 implies a low/no priority.

Note: Precedence may not be completely dependent on the severity of an event.

### ASN1:

CPT-PriorityLevel ::= UBYTE

**The following data frames directly use this data element:**

[IMIncident](#)

**The following messages directly use this data element:**

[ObNotifyMenu](#)

## A.127 Data Element CPT-PurchaseReqNumber {CPT-133}

### Use:

Identify a purchase request. Agencies define the format of the number within a 60 character maximum string.

### Remarks:

### ASN1:

CPT-PurchaseReqNumber ::= NAME60

**The following data frames directly use this data element:**

[CPTNeededSupplies](#)

**No messages were identified that directly use this data element**

## A.128 Data Element CPT-RadioZoneID {CPT-54}

### Use:

A unique number that identifies a coverage area for a radio transmitter.

### Remarks:

### ASN1:

CPT-RadioZoneID ::= NAME30

### The following data frames directly use this data element:

[CPTRadioZone](#)  
[SCHEvent](#)

No messages were identified that directly use this data element

## A.129 Data Element CPT-RequestIdentifier {CPT-102}

### Use:

Provide a unique identifier that a requesting component can include in a request message (e.g. a subscription request), and which is carried in the response to the request to allow the requesting component to reliably correlate outstanding requests with incoming responses.

### Remarks:

### ASN1:

CPT-RequestIdentifier ::= IDENL

### The following data frames directly use this data element:

[CPTSubscriptionHeader](#)

### The following messages directly use this data element:

[CcLR](#)  
[CcLocationReport](#)  
[ObLocation](#)  
[ObMenuResponse](#)  
[ObNotifyMenu](#)

ObWLANStatus

### A.130 Data Element CPT-SSN {CPT-131}

**Use:**

Convey a person's social security number.

**Remarks:**

**ASN1:**

CPT-SSN ::= IDENL

**The following data frames directly use this data element:**

[CPTEmployeeIden](#)  
[CPTOperatorIden](#)  
[PICustomerProfile](#)

**The following messages directly use this data element:**

[PiProfile](#)  
[PiProfileSub](#)

### A.131 Data Element CPT-SeatCount {CPT-123}

**Use:**

Provide a count of seats on a vehicle

**Remarks:**

**ASN1:**

CPT-SeatCount ::= USHORT

**The following data frames directly use this data element:**

[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)

**No messages were identified that directly use this data element**

## A.132 Data Element CPT-SerialNumber {CPT-56}

### Use:

The serial number of a piece of equipment, software, subassembly or other type of asset owned by a transit agency.

### Remarks:

Depends on manufacturer

### ASN1:

CPT-SerialNumber ::= FOOTNOTE

**The following data frames directly use this data element:**

[CCWorkOrder](#)  
[FCCashBoxContents](#)  
[FCCashBoxEvent](#)  
[FCCashBoxReconciliation](#)  
[FCComponentEventInstance](#)  
[FCEquipmentGroup](#)  
[FCVaultContents](#)  
[FCVaultEvent](#)

**The following messages directly use this data element:**

[FcCommandDisableEquip](#)  
[FcCommandDisableEquipAck](#)  
[FcCommandEnableEquip](#)  
[FcCommandEnableEquipAck](#)  
[FcFareHealth](#)  
[FcFareHealthSub](#)  
[FcReportCashboxEvent](#)  
[FcReportReconcileCashbox](#)  
[FcReportReconcileCashboxAck](#)  
[FcReportVaultEvent](#)  
[FcUnloadData](#)

### A.133 Data Element CPT-SeverityLevel {CPT-57}

#### Use:

A unique number assigned by a transit agency which defines the level of severity of an event that occurred or impacts transit property, facility or service. A "1" assumes the greatest severity and a 255 implies a low or absence of severity.

#### Remarks:

#### ASN1:

```
CPT-SeverityLevel ::= UBYTE
```

**The following data frames directly use this data element:**

[FCComponentEventInstance](#)  
[IMIncident](#)

**No messages were identified that directly use this data element**

### A.134 Data Element CPT-Sex {CPT-59}

#### Use:

Representation code for the human sexes.

#### Remarks:

#### ASN1:

```
CPT-Sex ::= ENUMERATED {
  male                      (1),
  female                     (2)
  -- 3-30 reserved
  -- 31-50 local use
}
```

**The following data frames directly use this data element:**

[CPTEmployee](#)  
[IMPerson](#)

**No messages were identified that directly use this data element**

### A.135 Data Element CPT-ShelterID {CPT-60}

**Use:**

A unique identifier for a shelter at a transit stoppoint.

**Remarks:**

**ASN1:**

CPT-ShelterID ::= NAME30

**The following data frames directly use this data element:**

[CPTShelterIden](#)

**No messages were identified that directly use this data element**

### A.136 Data Element CPT-ShelterName {CPT-61}

**Use:**

A name for a shelter.

**Remarks:**

**ASN1:**

CPT-ShelterName ::= NAME20

**The following data frames directly use this data element:**

[CPTShelterIden](#)

**No messages were identified that directly use this data element**

### A.137 Data Element CPT-ShelterType {CPT-62}

#### Use:

Type of shelter.

#### Remarks:

#### ASN1:

```
CPT-ShelterType ::= ENUMERATED {
    noShelter                  (1),
    covered                     (2),
    open                        (3),
    enclosed                    (4),
    -- 5-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[CPTShelter](#)

No messages were identified that directly use this data element

### A.138 Data Element CPT-StopPlacement {CPT-149}

#### Use:

Define the location of a stop relative to the location of an intersection.

#### Remarks:

#### ASN1:

```
CPT-StopPlacement ::= ENUMERATED {
    nearside                   (1),
    farside                     (2),
    mid-block                  (3),
    at                          (4),
    between                     (5),
    farside-mid-block          (6),
    nearside-mid-block         (7),
    opposite                    (8),
    -- 9-100 reserved
    -- 101-200 local use
    ... -- # LOCAL_CONTENT
```

}

**The following data frames directly use this data element:**

[CPTStoppoint](#)

**No messages were identified that directly use this data element**

## A.139 Data Element CPT-StoppointAttribute {CPT-63}

**Use:**

Attributes co-located with or describing a Stop Point.

**Remarks:**

**ASN1:**

```
CPT-StoppointAttribute ::= ENUMERATED {
    busShelter                  (1),
    bikeRack                    (2),
    concession                   (3),
    escalator                    (4),
    elevator                     (5),
    informationKiosk             (6),
    safetyZone                   (7),
    lighting                      (8),
    restroom                      (9),  -- public
    telephone                     (10),
    fareSeller                    (11), -- fare media sales office/booth
    seating                       (12),
    surveillance                 (13), -- camera
    tdd                           (14), -- telephone for the hearing impaired
    faregate                      (15), -- turnstile
    informationMonitor            (16),
    ramp                          (17), -- wheelchair access
    foodService                   (18),
    wheelchairLift                (19),
    -- 20-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTStoppoint](#)

[PIAccessibility](#)

[PIAmenity](#)

[PINearestStop](#)

[PINearestStopRequest](#)

**No messages were identified that directly use this data element**

### **A.140 Data Element CPT-StoppointDescription {CPT-64}**

**Use:**

An expository description of a Stop Point.

**Remarks:**

**ASN1:**

```
CPT-StoppointDescription ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CPTStoppoint](#)

**No messages were identified that directly use this data element**

### **A.141 Data Element CPT-StoppointDesignator {CPT-143}**

**Use:**

A unique alpha-numeric designator (identifier) of a stoppoint within an agency.

**Remarks:**

TCIP uses CPT-StoppointID as the unique numeric identifier for transit stoppoints. This element provides an additional, optional identifier which may be used to refer to a stoppoint.

**ASN1:**

```
CPT-StoppointDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CPTStoppointIden](#)  
[CPTTransferClusterIden](#)  
[PIGTFSStopTimes](#)  
[PIGTFSStops](#)  
[PIGTFSTransfers](#)

**No messages were identified that directly use this data element**

### **A.142 Data Element CPT-StoppointID {CPT-65}**

**Use:**

Identifies a point where public transportation customers board or alight from a transit vehicle in revenue service.

**Remarks:**

**ASN1:**

CPT-StoppointID ::= NAME30

**The following data frames directly use this data element:**

[CPTStoppointIden](#)  
[PIGTFSStops](#)

**No messages were identified that directly use this data element**

### **A.143 Data Element CPT-StoppointName {CPT-67}**

**Use:**

A name of a point where public transportation customers board or alight from a PTV in revenue service.

**Remarks:**

**ASN1:**

CPT-StoppointName ::= NAME20

**The following data frames directly use this data element:**

[CPTStoppointIden](#)  
[PIGTFSStops](#)

**No messages were identified that directly use this data element**

### A.144 Data Element CPT-StoppointPortal {CPT-68}

#### Use:

A description of the entrances/exits of a Stop Point (particularly when the Stop Point is a station or facility).

#### Remarks:

#### ASN1:

```
CPT-StoppointPortal ::= FOOTNOTE
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.145 Data Element CPT-StoppointSubset {CPT-130}

#### Use:

Identify an arbitrary grouping of stoppoints, defined by a transit business system. Groupings do not have to be disjoint sets.

#### Remarks:

#### ASN1:

```
CPT-StoppointSubset ::= IDNL
```

**The following data frames directly use this data element:**

[CPTFileApplicability](#)  
[CPTStoppointSubsetGroup](#)

**The following messages directly use this data element:**

[CptStoppointSubsets](#)

### A.146 Data Element CPT-StoppointVersion {CPT-106}

**Use:**

Provide a version identifier for a list of stop points. This allows a system to verify that it is using the correct version of a stop point list (e.g. the same version used in creating a pattern).

**Remarks:**

**ASN1:**

CPT-StoppointVersion ::= IDENL

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CptStoppointList](#)  
[CptStoppointListSub](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushPatterns](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

### A.147 Data Element CPT-SubscriptionType {CPT-100}

**Use:**

Provide the type of a requested subscription. The types allow the subscriber to ask for a one-shot provision of the information (query), a periodic update of the information, an update whenever the information changes (event), or cancellation of an existing subscription, or all existing subscriptions.

**Remarks:**

**ASN1:**

```
CPT-SubscriptionType ::= ENUMERATED {
  Query                  (1),
  Periodic               (2),
  Event                  (3),
  Cancel                 (99),
```

```
CancelAll          (100)
-- 128-255 reserved
-- 300-350 local use
}
```

**The following data frames directly use this data element:**

[CPTSubscriptionHeader](#)

**No messages were identified that directly use this data element**

## A.148 Data Element CPT-Time {CPT-139}

### Use:

Define a time of day.

### Remarks:

Can be either encoded using XML time type or narrowband encoded using a ULONG constrained to the range 0...235960999. The narrowband value is masked by digits as HHMMSS.FFF where HH represents hours, MM represents minutes, SS represents seconds and FFF represents fractions of seconds. Seconds are allowed to equal 60 to allow for a leap second.

### ASN1:

CPT-Time ::= TIME

**The following data frames directly use this data element:**

[CPTSubscriptionHeader](#)  
[FCDayTimeInterval](#)  
[FCFareDefinitionRecord](#)  
[OBStoppointRecord](#)  
[PIAccessibility](#)  
[PIAmenity](#)  
[PIAvailablePeriod](#)  
[PICustSubscription](#)  
[PIGTFSFrequencies](#)  
[PIGTFSStopTimes](#)  
[SCHBlockScheduleEntry](#)  
[SCHOperatorAssignment](#)  
[SCHRUnScheduleEntry](#)  
[SCHTransferInfo](#)  
[SCHUnassignedOperator](#)  
[SCHUnassignedVehicle](#)

**The following messages directly use this data element:**

[PiServiceStatus](#)

[SchOperatorAssignmentListSub](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchStopServiceList](#)  
[SchStopServiceListSub](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)  
[SchUnassignedOperatorList](#)  
[SchUnassignedOperatorListSub](#)  
[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)  
[SchVehicleAssignmentListSub](#)

## A.149 Data Element CPT-TimeName {CPT-136}

### Use:

Name the type of time provided - e.g. "EST", "PDT", "Chicago"

### Remarks:

### ASN1:

CPT-TimeName ::= NAME12

**The following data frames directly use this data element:**

[PIAvailablePeriod](#)

**The following messages directly use this data element:**

[CptCommandTimeUpdate](#)

## A.150 Data Element CPT-TrafficSignalType {CPT-137}

### Use:

Define types of traffic signals.

### Remarks:

### ASN1:

```
CPT-TrafficSignalType ::= ENUMERATED {
    normal                      (1),
    flashingRed                 (2),
    flashingYellow               (3),
    busOnly                     (4),
    queueJump                   (5),
    rightOnRed                  (6),
    leftOnRed                   (7),
    -- 8-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTStoppoint](#)

**No messages were identified that directly use this data element**

## A.151 Data Element CPT-TrainID {CPT-153}

### Use:

Uniquely identifies a train within an agency.

### Remarks:

### ASN1:

```
CPT-TrainID ::= NAME40
```

**The following data frames directly use this data element:**

[CPTTrainIden](#)

**The following messages directly use this data element:**

[CcLR](#)

### **A.152 Data Element CPT-TransferClusterID {CPT-69}**

**Use:**

A unique number that identifies a group of Stop Points in the same vicinity where transfers can be made conveniently.

**Remarks:**

**ASN1:**

CPT-TransferClusterID ::= NAME30

**The following data frames directly use this data element:**

[CPTTransferClusterIden](#)

**No messages were identified that directly use this data element**

### **A.153 Data Element CPT-TransferClusterName {CPT-70}**

**Use:**

The name of a group of Stop Points where transfers can be made conveniently.

**Remarks:**

**ASN1:**

CPT-TransferClusterName ::= NAME20

**The following data frames directly use this data element:**

[CPTTransferClusterIden](#)

**No messages were identified that directly use this data element**

### A.154 Data Element CPT-TransitFacilityID {CPT-72}

**Use:**

A unique number assigned to a facility owned or operated by a public transit agency.

**Remarks:**

**ASN1:**

CPT-TransitFacilityID ::= NAME30

**The following data frames directly use this data element:**

[CPTTransitFacilityIden](#)

**No messages were identified that directly use this data element**

### A.155 Data Element CPT-TransitFacilityName {CPT-73}

**Use:**

A unique identifier assigned to all types of facilities owned and operated by a public transportation authority.

**Remarks:**

**ASN1:**

CPT-TransitFacilityName ::= NAME20

**The following data frames directly use this data element:**

[CPTTransitFacilityIden](#)

**No messages were identified that directly use this data element**

**A.156 Data Element CPT-TransitFacilityType {CPT-74}****Use:**

A function or type of property owned and operated by a public transportation authority.

**Remarks:****ASN1:**

```
CPT-TransitFacilityType ::= ENUMERATED {
    central                      (1), -- Central Office
    garage                       (2), -- Garage
    operatorBase                 (3), -- Operator base
    busBase                      (4), -- Bus vehicle base
    railBase                     (5), -- Rail vehicle base
    modeVehBase                 (6), -- multimodal vehicle base
    busMaintenance               (7), -- Bus Vehicle maintenance garage
    railMaintenance              (8), -- Rail Vehicle maintenance garage
    modeVehMaintenance          (9), -- Multimode vehicle maintenance garage
    centralMaintenance           (10), -- Central maintenance facility
    mow                          (11), -- Maintenace of Way (MOW)
    fareSales                     (12), -- Fare media sales office
    fleetOperations               (13), -- Bus fleet operations center
    railOperations                (14), -- Rail operations center
    policeAndEMC                 (15), -- Transit police and emergency service center
    reservationsDR                (16), -- Demand-responsive reservations center
    dispatchDR                   (17), -- Demand-Responsive dispatch center
    shelter                       (18), -- Shelter
    revenueCollection             (19), -- Revenue collection facility
    centralWarehouse              (20), -- Central warehouse
    medical                        (21), -- Drug testing/medical facility
    airport                        (22), -- Airport
    parkingNonRevenuePTV          (23), -- Non-revenue PTV parking
    parkingEmployee                (24), -- employee parking
    parkingRevenuePTV              (25), -- revenue vehicle parking
    parkingCustomer                (26), -- customer parking
    parkingKandR                  (27), -- kiss and ride parking
    constructionSite              (28), -- construction site
    propertyVacant                (29), -- vacant property
    propertyCommercial             (30), -- commercial property
    propertyRental                 (31), -- rental property
    stationRail                   (32), -- rail station
    port                           (33), -- slip, port
    training                        (34), -- training center
    storage                         (35), -- Store room/equipment storage
    -- 36-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTTransitFacility](#)

**The following messages directly use this data element:**

[CptTransitFacilities](#)  
[CptTransitFacilitiesSub](#)

### A.157 Data Element CPT-TransmissionID {CPT-158}

**Use:**

Provide a unique alphanumeric identifier for a transmission.

**Remarks:**

**ASN1:**

CPT-TransmissionID ::= NAME40

**The following data frames directly use this data element:**

[CPTTransmissionIden](#)

**No messages were identified that directly use this data element**

### A.158 Data Element CPT-TruckID {CPT-151}

**Use:**

Unique identifier within an agency for a truck (sometimes called a bogie) for a rail vehicle

**Remarks:**

**ASN1:**

CPT-TruckID ::= NAME40

**The following data frames directly use this data element:**

[CPTTruckIden](#)

**No messages were identified that directly use this data element**

## A.159 Data Element CPT-UDP-TCP-PortNumber {CPT-126}

### Use:

Convey a layer 4 port address for UDP or TCP. Can also be used to convey other locally defined address types that can be expressed in 8 bits.

### Remarks:

### ASN1:

CPT-UDP-TCP-PortNumber ::= UBYTE

**The following data frames directly use this data element:**

[CPTLoadFileHeader](#)  
[CPTUnloadFileHeader](#)  
[OBHealthStatusRecord](#)  
[PIAgencyStaticFile](#)  
[TSPIntersectionEntry](#)  
[TSPScenario5Intersection](#)  
[TSPTmsIntersectionParam](#)

**The following messages directly use this data element:**

[CptFilesToUnload](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## A.160 Data Element CPT-VIN {CPT-79}

### Use:

Vehicle Identification Number- "a structured combination of characters assigned to a vehicle by the manufacturer for identification purposes." (ISO 3779-1977 (E))

### Remarks:

### ASN1:

CPT-VIN ::= NAME17

**The following data frames directly use this data element:**

[CPTVehicleIden](#)  
[IMVehicleIDInformation](#)  
[TSPEventLogEntry](#)  
[TSPPRGInputsCCEntry](#)

**The following messages directly use this data element:**

[CcLR](#)  
[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## A.161 Data Element CPT-VehicleDesignator {CPT-144}

### Use:

Used to identify an agency-assigned designator to a vehicle.

### Remarks:

#### ASN1:

```
CPT-VehicleDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[CPTVehicleIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.162 Data Element CPT-VehicleID {CPT-49}

### Use:

A unique number assigned by the transit agency to each of their vehicles.

### Remarks:

#### ASN1:

```
CPT-VehicleID ::= NAME30
```

**The following data frames directly use this data element:**

[CPTVehicleIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.163 Data Element CPT-VehicleModelYear {CPT-76}

### Use:

The model year of the vehicle.

### Remarks:

YYYY where YYYY represents a year.

### ASN1:

```
CPT-VehicleModelYear ::= NAME4
```

### The following data frames directly use this data element:

[CPTPTVehicle](#)

No messages were identified that directly use this data element

## A.164 Data Element CPT-VehicleName {CPT-145}

### Use:

Used to identify an agency-assigned name to a vehicle.

### Remarks:

### ASN1:

```
CPT-VehicleName ::= NAME30
```

### The following data frames directly use this data element:

[CPTVehicleIden](#)

The following messages directly use this data element:

[CcLR](#)

## A.165 Data Element CPT-VersionNo {CPT-78}

### Use:

A reference to the version of standard, software or document.

### Remarks:

.

### ASN1:

CPT-VersionNo ::= FOOTNOTE

### The following data frames directly use this data element:

[OBSWComponent](#)

[OBSWDataLoadID](#)

No messages were identified that directly use this data element

## A.166 Data Element FC-ActionTypeUTFS {FC-118}

### Use:

Define a UTFS-defined action type for an action list. This element is a placeholder pending UTFS action.

### Remarks:

### ASN1:

FC-ActionTypeUTFS ::= IDENL

### The following data frames directly use this data element:

[FCActionListEntryUTFS](#)

No messages were identified that directly use this data element

## A.167 Data Element FC-ComponentErrorType {FC-5}

### Use:

A type of error that may occur in a component, subassembly or piece of equipment in a processing unit.

### Remarks:

### ASN1:

```
FC-ComponentErrorType ::= ENUMERATED {
    bill-accept              (1), -- bill accept
    bill-count                (2), -- bill count
    bill-escrow               (3), -- bill escrow
    bill-operation             (4), -- bill operation
    bill-stacker               (5), -- bill stacker
    card-read-1                (6), -- card read (1st try)
    card-read-2                (7), -- card read (2nd try)
    card-read-3                (8), -- card read (3rd try)
    card-reject                 (9), -- card reject
    card-write                  (10), -- card write
    coin-accept                  (11), -- coin accept
    coin-count                  (12), -- coin count
    coin-operation                (13), -- coin operation
    power-loss                   (14), -- power loss
    feed                         (15), -- feed
    transport                     (16), -- transport
    printer                      (17), -- printer
    -- 18-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[FCComponentEventInstance](#)

No messages were identified that directly use this data element

## A.168 Data Element FC-ComponentEventID {FC-7}

### Use:

A numeric representation of the status of a component being reported.

### Remarks:

### ASN1:

FC-ComponentEventID ::= IDENL

The following data frames directly use this data element:

[FCComponentEventInstance](#)

[FCComponentEventStatusReport](#)

No messages were identified that directly use this data element

## A.169 Data Element FC-ComponentEventType {FC-8}

### Use:

A representation for a report on the status of a fare collection component.

### Remarks:

### ASN1:

```
FC-ComponentEventType ::= ENUMERATED {
  voltage-dropout          (1), -- voltage dropout
  voltage-restored         (2), -- voltage restored
  probe-started            (3), -- probe started
  probe-completed          (4), -- probe completed
  cashbox-removed           (5), -- cashbox removed
  cashbox-restored          (6), -- cashbox restored
  cashbox-door-timeout     (7), -- cashbox door timeout
  cashbox-opened-is          (8), -- cashbox opened in service
  insufficient-fare          (9), -- insufficient fare accepted
  coinbox-75-full            (10), -- coinbox 75% full
  coinbox-full               (11), -- coinbox full
  currencybox-75-full        (12), -- currency box 75% full
  currencybox-under-75       (13), -- currency box less than 75% full
  currencybox-full             (14), -- currency box full
  cardpassbox-75-full        (15), -- card/pass box 75% full
  cardpassbox-under-75       (16), -- card/pass box less than 75% full
  cardpassbox-full              (17), -- card/pass box full
  coin-dejam                  (18), -- coin de-jam operated
```

```

farebox-manual-bypass          (19), -- farebox set in manual bypass
farebox-automatic              (20), -- farebox reset to automatic mode
pass-jam                      (21), -- pass/transfer jam
pass-jam-cleared               (22), -- pass/transfer jam cleared
pass-currency-jam              (23), -- pass currency jam
maintenance-access-is          (24), -- maintenance access - in service
maintenance-access-oos         (25), -- maintenance access - out of service
alarm-module-failure           (26), -- alarm module failure
battery-failure                (27), -- battery failure
battery-low                     (28), -- battery low
cardcapturebin-75-full          (29), -- card capture bin 75% full
cardcapturebin-full             (30), -- -card capture bin full
card-stock-1-low                 (31), -- Fare card stock type 1 is low
card-stock-1-out                 (32), -- Fare card stock type 1 is out
card-stock-2-low                 (33), -- Fare card stock type 2 is low
card-stock-2-out                 (34), -- Fare card stock type 2 is out
card-stock-3-low                 (35), -- Fare card stock type 3 is low
card-stock-3-out                 (36), -- Fare card stock type 3 is out
card-stock-4-low                 (37), -- Fare card stock type 4 is low
card-stock-4-out                 (38), -- Fare card stock type 4 is out
card-stock-5-low                 (39), -- Fare card stock type 5 is low
card-stock-5-out                 (40), -- Fare card stock type 5 is out
card-stock-6-low                 (41), -- Fare card stock type 6 is low
card-stock-6-out                 (42), -- Fare card stock type 6 is out
clock-error                      (43), -- Equipment controller board clock error
coin-acceptor-fault              (44), -- Coin acceptor fault
communications-loss              (45), -- Loss of communications with local devices
maintenance-door-open            (46), -- Maintenance door open
maintenance-door-closed          (47), -- Maintenance door closed
motion-sensor-alarm-on           (48), -- Motion sensor alarm triggered
power-reset                      (49), -- Power reset
communications-lost              (50), -- Local station communications lost
receipt-low                      (51), -- Receipt low
receipt-out                      (52), -- Receipt out
credit-debit-failure              (53), -- credit/debit failure (out of service)
gate-failure                      (54), -- gate failure (turnstile and parking)
banknote-validation-failure       (55), -- bank note validation failure
breakin-alarm                     (56), -- breakin alarm

-- 56-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}

```

**The following data frames directly use this data element:**

[FCComponentEventInstance](#)

**No messages were identified that directly use this data element**

## A.170 Data Element FC-ComponentID {FC-9}

### Use:

A unique number assigned by the transit agency used to identify a component or piece of equipment.

### Remarks:

### ASN1:

```
FC-ComponentID ::= IDENL
```

**The following data frames directly use this data element:**

[FCComponentEventInstance](#)

**No messages were identified that directly use this data element**

## A.171 Data Element FC-ComponentStatusType {FC-10}

### Use:

A numeric representation of the operational state of a component.

### Remarks:

### ASN1:

```
FC-ComponentStatusType ::= ENUMERATED {
    in-service                      (1), -- In-service
    out-of-service                   (2), -- Out of service
    maintenance-mode                 (3), -- Maintenance mode
    freewheel-mode                  (4), -- Freewheel mode (no pay)
    diagnostic-mode                 (5), -- Diagnostic mode
    alarm-triggered                 (6), -- Alarm triggered
    gate-entry-only                  (7), -- Gate mode open for entry only
    gate-exit-only                  (8), -- Gate mode open for exit only
    gate-entry-and-exit             (9), -- Gate mode open for entry/exit
    command-disabled (10),
    -- 11-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCComponentEventInstance](#)  
[FCComponentEventStatusReport](#)

**No messages were identified that directly use this data element**

## A.172 Data Element FC-DiscountType {FC-111}

### Use:

Define a type of fare discount

### Remarks:

### ASN1:

```
FC-DiscountType ::= ENUMERATED {
    senior                  (1),
    handicap                (2),
    veteran                 (3),
    smartcard               (4),
    multitrip               (5),
    weekend                 (6),
    holiday                 (7),
    special-offer1          (8),
    special-offer2          (9),
    special-offer3          (10),
    -- 11-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

### A.173 Data Element FC-FIStandard {FC-35}

#### Use:

A list of standards related to financial instruments. This list includes electronic and non-electronic fare instruments.

#### Remarks:

#### ASN1:

```
FC-FIStandard ::= ENUMERATED {
    none                  (1),  -- none
    iso-8583-1995         (2),  -- ISO 8583:1993 (parts 1-3)
    iso-4909-1987         (3),  -- ISO 4909:1987
    iso-9992-1990         (4),  -- ISO 9992:1990 (parts 1 and 2)
    vei-1997               (5),  -- VEI:1997 tbd
    -- 10-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data element

No messages were identified that directly use this data element

### A.174 Data Element FC-FareBasis {FC-110}

#### Use:

Define the basis for a fare calculation

#### Remarks:

#### ASN1:

```
FC-FareBasis ::= ENUMERATED {
    byTrip                (1),
    withinZone             (2),
    interZone              (3),
    distance               (4),
    direction              (5),
    board-location          (6),
    peak-trip               (7),
    off-peak-trip           (8),
```

```
-- 9-127 reserved  
-- 128-255 local use  
... -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

## A.175 Data Element FC-FareCharacterCostIndex {FC-16}

### Use:

A unique reference to a cell in a fare table that assigns a fare (monetary or ride value) for a specific public transportation service. The service is characterized by rider classification, service type, mode, time period, point/point or zone/zone, and fare instrument used.

### Remarks:

### ASN1:

FC-FareCharacterCostIndex ::= NAME30

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.176 Data Element FC-FareCost {FC-17}

### Use:

The cost (in currency) of a fare for transit service.

### Remarks:

### ASN1:

```
FC-FareCost ::= ULONG
```

**The following data frames directly use this data element:**

[FCAccreditedTransitRecord](#)  
[FCFarePolicyRecord](#)  
[PIGTFSFareAttributes](#)

**No messages were identified that directly use this data element**

## A.177 Data Element FC-FareDefinitionRecordID {FC-104}

### Use:

Provide a unique identifier for a fare definition record.

### Remarks:

### ASN1:

```
FC-FareDefinitionRecordID ::= NAME30
```

**The following data frames directly use this data element:**

[FCFareDefinitionRecord](#)  
[FCValidationRecord](#)

**No messages were identified that directly use this data element**

## A.178 Data Element FC-FareEquipmentSubset {FC-116}

### Use:

Identify an arbitrary agency-defined grouping of fare collection equipment.

### Remarks:

### ASN1:

```
FC-FareEquipmentSubset ::= IDENL
```

**The following data frames directly use this data element:**

[CPTFileApplicability](#)  
[FCEquipmentGroup](#)

**The following messages directly use this data element:**

[FcEquipmentSubsets](#)

## A.179 Data Element FC-FareInstrID {FC-23}

### Use:

A number which identifies a specific type of fare instrument and possibly its rider characteristics.

### Remarks:

### ASN1:

```
FC-FareInstrID ::= NAME30
```

**The following data frames directly use this data element:**

[PITripRequestFareConstraints](#)

**No messages were identified that directly use this data element**

## A.180 Data Element FC-FareMediaID-nbr {FC-24}

### Use:

A unique number assigned as a suffix to each fare instrument identifier (FC-FareInstrumentID) which is assigned by a financial authority (e.g., transit agency) and recognized as payment for transit services.

### Remarks:

#### ASN1:

FC-FareMediaID-nbr ::= NAME30

**The following data frames directly use this data element:**

[FCFareMediaID](#)  
[FCSCObjectRecord](#)

**No messages were identified that directly use this data element**

## A.181 Data Element FC-FareMediaID-txt {FC-25}

### Use:

A unique character string assigned as a prefix to each fare instrument identifier (FC-FareInstrumentID) which is assigned by a financial authority (e.g., transit agency) and recognized as payment for transit services.

### Remarks:

aa, where "a" represents a character

#### ASN1:

FC-FareMediaID-txt ::= NAME2

**The following data frames directly use this data element:**

[FCFareMediaID](#)

**No messages were identified that directly use this data element**

## A.182 Data Element FC-FarePolicyID {FC-107}

### Use:

Provide a unique identifier for an agency fare policy.

### Remarks:

#### ASN1:

```
FC-FarePolicyID ::= NAME30
```

**The following data frames directly use this data element:**

[FCFarePolicyIden](#)

**No messages were identified that directly use this data element**

## A.183 Data Element FC-FarePolicyName {FC-108}

### Use:

Provide a displayable name for an agency fare policy.

### Remarks:

#### ASN1:

```
FC-FarePolicyName ::= NAME30
```

**The following data frames directly use this data element:**

[FCFarePolicyIden](#)

**No messages were identified that directly use this data element**

### A.184 Data Element FC-FareRecordID {FC-103}

**Use:**

Provide a unique identifier for a fare record.

**Remarks:**

**ASN1:**

FC-FareRecordID ::= NAME30

**The following data frames directly use this data element:**

[FCFareRecord](#)  
[FCValidationModelError](#)

**No messages were identified that directly use this data element**

### A.185 Data Element FC-FareZoneIndex {FC-30}

**Use:**

A unique number that corresponds to a cell in a fare zone table. The index identifies an origin and destination zone pair.

**Remarks:**

**ASN1:**

FC-FareZoneIndex ::= NAME30

**The following data frames directly use this data element:**

[FCFareZoneTableEntry](#)

**No messages were identified that directly use this data element**

### A.186 Data Element FC-FareZoneName {FC-100}

**Use:**

Provide an ability for transit agencies to assign names to fare zones.

**Remarks:**

**ASN1:**

```
FC-FareZoneName ::= NAME30
```

**The following data frames directly use this data element:**

[FCCFareZoneIden](#)

**No messages were identified that directly use this data element**

### A.187 Data Element FC-FinancialTransactionID {FC-32}

**Use:**

A unique number that identifies a financial transaction.

**Remarks:**

**ASN1:**

```
FC-FinancialTransactionID ::= NAME30
```

**The following data frames directly use this data element:**

[FCTransactionRecord](#)

**No messages were identified that directly use this data element**

## A.188 Data Element FC-FinancialTransactionType {FC-33}

### Use:

Lists the types of financial transactions.

### Remarks:

### ASN1:

```
FC-FinancialTransactionType ::= ENUMERATED {
    money-received          (1), -- Money received
    money-dispensed          (2), -- Money dispensed
    electronic-credit        (3), -- Electronic - credit
    electronic-debit         (4), -- Electronic - debit
    sc-payment               (5), -- Smart card payment
    combo                    (6), -- Combo (split payment)
    transit-check            (7), -- Transit check
    smart-card-object        (8), -- download a smartcard object record.
    Alight-record            (9), -- download an alighting record.
    Token-received           (10), -- record payment by token(s)
    pass-used                (11),
    sc-add-value             (12),
    transfer-issued          (13),
    transfer-accepted        (14),
    sc-sold                  (15),
    ticket-sold              (16),
    mag-card-sold            (17),
    pass-sold                (18),
    token-sold               (19),
    -- 20-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[FCTransactionRecord](#)

No messages were identified that directly use this data element

## A.189 Data Element FC-MonetaryInstrAuth {FC-37}

### Use:

A list of authorities and global currencies as specified by a 3 character ISO 4217 currency code or six character CPT-AgencyID. The ISO 4217 format includes a two character country code based on ISO 3166 plus a one-character currency designator.

### Remarks:

### ASN1:

FC-MonetaryInstrAuth ::= FOOTNOTE

**The following data frames directly use this data element:**

[FCCashBoxContents](#)  
[FCCashBoxReconciliation](#)  
[FCFarePolicyRecord](#)  
[FCFareRecord](#)  
[FCTransactionRecord](#)  
[FCVaultContents](#)  
[PIGTFSFareAttributes](#)

No messages were identified that directly use this data element

## A.190 Data Element FC-MonetaryInstrType {FC-39}

### Use:

The physical type of Monetary Instrument.

### Remarks:

### ASN1:

```
FC-MonetaryInstrType ::= ENUMERATED {
  bill                  (1), -- bill
  coin                  (2), -- coin
  token                 (3), -- token
  ticket                (4), -- ticket
  debit                 (5), -- debit: money is in acct and transferred to acct; external
  to the transit agency
  stored-value          (6), -- stored value: prepaid cash; internal cash instrument issued
  by property
  charge                (7), -- charge: federal institution extends credit
  hybrid                (8), -- hybrid
  transit-check         (9), -- transit check
```

```
check-card          (10), -- check card
-- 11-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)  
[FCFareRecord](#)  
[PITripRequestFareConstraints](#)

**No messages were identified that directly use this data element**

## A.191 Data Element FC-MonetaryInstrValue {FC-41}

**Use:**

The monetary value of the currency based on one hundredth of the currency designator. Token, ticket, and pass are based on the currency of the country in which the agency resides.

**Remarks:**

Units are in hundredths of currency value.

**ASN1:**

FC-MonetaryInstrValue ::= ULONG

**The following data frames directly use this data element:**

[FCFareRecord](#)  
[SCHOperatorPay](#)

**No messages were identified that directly use this data element**

## A.192 Data Element FC-MonetaryValue {FC-106}

### Use:

Specify an amount of money in hundredths of the currency rate 9e.g. hundredths or dollars - cents if the monetary instrument type is us dollars).

### Remarks:

### ASN1:

```
FC-MonetaryValue ::= ULONG
```

**The following data frames directly use this data element:**

[FCCashBoxContents](#)  
[FCCashBoxReconciliation](#)  
[FCVaultContents](#)

**No messages were identified that directly use this data element**

## A.193 Data Element FC-MultipleTripType {FC-113}

### Use:

Define the type of a multiple trip (e.g. for identifying its cost).

### Remarks:

### ASN1:

```
FC-MultipleTripType ::= ENUMERATED {
  daily                      (1),
  ten-trip                    (2),
  twenty-trip                 (3),
  two-trip                    (4),
  pass                       (5),
  nth-ride-free               (6),
  -- 7-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

### **A.194 Data Element FC-ParkingCostType {FC-112}**

**Use:**

Define the parking cost basis

**Remarks:**

**ASN1:**

```
FC-ParkingCostType ::= ENUMERATED {
    hourly                      (1),
    half-hourly                 (2),
    daily                       (3),
    weekly                      (4),
    overnight                   (5),
    annual                      (6),
    -- 7-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

## A.195 Data Element FC-PassInstrID {FC-45}

### Use:

A unique identifier for fare instrument which contains unlimited number of rides over a period of time, e.g., monthly, weekly and daily passes.

### Remarks:

### ASN1:

```
FC-PassInstrID ::= ULONG
```

**The following data frames directly use this data element:**

[PITripRequestFareConstraints](#)

**No messages were identified that directly use this data element**

## A.196 Data Element FC-PassInstrType {FC-46}

### Use:

A list of pass instrument types.

### Remarks:

### ASN1:

```
FC-PassInstrType ::= ENUMERATED {
  mag-stripe          (1), -- Magnetic stripe
  flash-pass          (2), -- Flash pass
  transit-check       (3), -- Transit check
  smart-card          (4), -- Smart card
  employee            (5),
  senior              (6),
  handicap             (7),
  vip                 (8),
  transit-quest        (9),
  contractor           (10),
  monthly              (11),
  daily                (12),
  annual               (13),
  parking              (14),
  -- 15-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

## A.197 Data Element FC-PolicyType {FC-115}

**Use:**

Define the type of a fare policy in a Fare Policy Record.

**Remarks:**

**ASN1:**

```
FC-PolicyType ::= ENUMERATED {
  media-sale                      (1),
  transfer-allowed                 (2),
  fare-charge                      (3),
  media-load                       (4),
  parking                           (5),
  -- 6-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

## A.198 Data Element FC-RideInstrID {FC-50}

### Use:

An identification number associated with a type of fare instrument used for fare payment. The value of the instrument is based on the number of rides (versus cash value).

### Remarks:

### ASN1:

FC-RideInstrID ::= UBYTE

**The following data frames directly use this data element:**

[PITripRequestFareConstraints](#)

**No messages were identified that directly use this data element**

## A.199 Data Element FC-RideValue {FC-56}

### Use:

The number of rides available on a ride instrument. The rides may be specified for specific transit service (mode, route, line), day type, service type, rider classification, etc.

### Remarks:

### ASN1:

FC-RideValue ::= UBYTE

**The following data frames directly use this data element:**

[FCAccountTransferRecord](#)

**No messages were identified that directly use this data element**

## A.200 Data Element FC-RideValueAdd {FC-57}

### Use:

The number of one way trips on a PT vehicle added to a fare instrument during a transaction. The ride value is based on the definition of the ride instrument (i.e., FC-RideInstrumentID).

### Remarks:

### ASN1:

FC-RideValueAdd ::= UBYTE

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)  
[FCRideTransaction](#)  
[FCTransactionRecord](#)

**No messages were identified that directly use this data element**

## A.201 Data Element FC-RideValueDeduct {FC-58}

### Use:

The number of one way trips on a PT vehicle deducted from a fare instrument during a transaction. The ride value is based on the definition of the ride instrument (i.e., FC-RideInstrumentID).

### Remarks:

### ASN1:

FC-RideValueDeduct ::= UBYTE

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)  
[FCFareRecord](#)  
[FCRideTransaction](#)  
[FCTransactionRecord](#)

**No messages were identified that directly use this data element**

## A.202 Data Element FC-RideValueRemaining {FC-59}

### Use:

The number of one way trips on a PT vehicle remaining on a fare instrument after a transaction. The ride value is based on the definition of the ride instrument (i.e., FC-RideInstrumentID).

### Remarks:

### ASN1:

FC-RideValueRemaining ::= USHORT

**The following data frames directly use this data element:**

[FCRideTransaction](#)

**No messages were identified that directly use this data element**

## A.203 Data Element FC-RidersOnFIMax {FC-55}

### Use:

The number of riders who are allowed to enter a PT stop point (or vehicle) at the same time and using the same fare media.

### Remarks:

127 (FFFFx) indicates unlimited

### ASN1:

FC-RidersOnFIMax ::= UBYTE

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data element**

## A.204 Data Element FC-RidersOnFareInstr {FC-54}

### Use:

The number of riders who used the fare instrument to enter an access point (on PT vehicle) 'at the same time.'

### Remarks:

### ASN1:

FC-RidersOnFareInstr ::= UBYTE

**The following data frames directly use this data element:**

[FCTransactionRecord](#)

**No messages were identified that directly use this data element**

## A.205 Data Element FC-SCObjectCarrier {FC-101}

### Use:

Convey a smart card object inside a TCIP message. Objects are intended to be 128 bit (16 octet) data structures. This object definition is derived from the PANYNJ Regional Interface Specification for Electronic Transit Fare Payments.

### Remarks:

### ASN1:

FC-SCObjectCarrier ::= MEMSHORT16

**The following data frames directly use this data element:**

[FCSCObjectRecord](#)

**No messages were identified that directly use this data element**

## A.206 Data Element FC-SCObjectType {FC-102}

### Use:

Identify the type of a smart card object data conveyed in an object carrier field in a TCIP message. These object types are derived from the PANYNJ Regional Interface Specification for Electronic Transit Fare Payments.

### Remarks:

### ASN1:

```
FC-SCObjectType ::= ENUMERATED {
    directory-index          (1),
    transit-app-profile      (2),
    picc-holder-profile      (3),
    product-index             (4),
    product-object            (5),
    add-value-history         (6),
    transaction-history       (7),
    security-key-set          (8),
    -- 100-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCSCObjectRecord](#)

**No messages were identified that directly use this data element**

## A.207 Data Element FC-SubassemblyID {FC-60}

### Use:

A unique string assigned by the transit agency used to identify a subassembly or part of a component.

### Remarks:

### ASN1:

```
FC-SubassemblyID ::= NAME20
```

**The following data frames directly use this data element:**

[FCComponentEventInstance](#)

**No messages were identified that directly use this data element**

## A.208 Data Element FC-TimePeriodIndex {FC-63}

### Use:

A unique number that identifies a cell in a time period table. The index represents a time period over the course of a day type or specific calendar days.

### Remarks:

### ASN1:

```
FC-TimePeriodIndex ::= IDENL
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.209 Data Element FC-TransactionDescription {FC-65}

### Use:

A description of a fare transaction.

### Remarks:

### ASN1:

```
FC-TransactionDescription ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[FCRideTransaction](#)  
[FCTransactionRecord](#)

No messages were identified that directly use this data element

## A.210 Data Element FC-TransactionResult {FC66}

### Use:

Series of outcomes related to processing fare instruments.

### Remarks:

### ASN1:

```
FC-TransactionResult ::= ENUMERATED {
    comment                  (0), -- comment
    successful-transaction   (1), -- successful transaction
    read-error                (10), -- read error
    write-error               (20), -- write error
    verify-error              (30), -- verify error
    validation-status-error   (40), -- validation status error
    status-error              (50), -- status error
    other                     (60), -- other
    -- 61-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[FCRideTransaction](#)

**No messages were identified that directly use this data element**

### **A.211 Data Element FC-TurnstileID {FC-117}**

**Use:**

Uniquely identify a turnstile in a transit agency.

**Remarks:**

**ASN1:**

FC-TurnstileID ::= NAME30

**The following data frames directly use this data element:**

[FCTurnstileCountRecord](#)

**No messages were identified that directly use this data element**

### **A.212 Data Element FC-ValidationErrorCode {FC-105}**

**Use:**

Define the type of error discovered by the farebox while validating a data load.

**Remarks:**

**ASN1:**

```
FC-ValidationErrorCode ::= ENUMERATED {
    invalid-activation-date      (1),
    invalid-fare-zone-definition (2),
    invalid-basic-fare           (3),
    invalid-stop-fare             (4),
    invalid-zone-fare             (5),
    invalid-bad-fare              (6),
    invalid-good-medias          (7),
    invalid-stoppoint             (8),
    invalid-day-definition        (9),
    invalid-transfer               (10),
    invalid-access-permission     (11)
}
```

```
-- 13-101 reserved  
-- 102-200 local use  
}
```

**The following data frames directly use this data element:**

[FCValidationError](#)

**No messages were identified that directly use this data element**

## A.213 Data Element FC-ValueAdd {FC67}

**Use:**

Monetary amount added to the fare media during a transaction. The monetary authority and currency is based on the FC-MonetaryInstrumentID. The default value is in U.S. dollars (\$mmm.cc)

**Remarks:**

**ASN1:**

FC-ValueAdd ::= USHORT

**The following data frames directly use this data element:**

[FCFarePolicyRecord](#)

[FCTransactionRecord](#)

**No messages were identified that directly use this data element**

## A.214 Data Element FC-ValueDeduct {FC-69}

### Use:

The monetary amount deducted from the fare media during a transaction. The monetary value is based on the FC-MonetaryInstrumentID. The default authority and currency is in US dollars (\$mmm.cc).

### Remarks:

#### ASN1:

FC-ValueDeduct ::= USHORT

**The following data frames directly use this data element:**

[FCTransactionRecord](#)

**No messages were identified that directly use this data element**

## A.215 Data Element FC-ValueRemaining {FC-70}

### Use:

The monetary value stored on electronic media (e.g., smart card, magnetic storage card) following a transaction. The monetary authority and currency is based on the FC-MonetaryInstrumentID. The default value is in U.S. dollars (\$mmm.cc).

### Remarks:

#### ASN1:

FC-ValueRemaining ::= USHORT

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.216 Data Element FC-VehicleType {FC-109}

### Use:

Define type codes for vehicles

### Remarks:

### ASN1:

```
FC-VehicleType ::= ENUMERATED {
    anyType                  (1),
    passengerCar             (2),
    motorcycle               (3),
    pickupTruck              (4),
    suv                      (5),
    trailer                  (6),
    car-and-trailer          (7),
    truck-and-trailer        (8),
    truck                    (9),
    semi-truck                (10),
    -- 11-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[FCFarePolicyRecord](#)

No messages were identified that directly use this data element

**A.217 Data Element IM-AccidentCode {IM-89}****Use:**

Define a list of accident codes that can be used to elaborate on an accident related to ptv operations.

**Remarks:****ASN1:**

```
IM-AccidentCode ::= ENUMERATED {
intersec-fm-lft          (1), -- collision at intersection from left
intersec-fm-rt             (2), -- collision at intersection from right
ptv-trn-rt-oth-veh-fm-ahd (3), -- ptv turning right hit by other vehicle from ahead
ptv-trn-rt-oth-veh-fm-lft (4), -- ptv turning right hit by other vehicle from left
ptv-trn-rt-oth-veh-fm-rt  (5), -- ptv turning right hit by other vehicle from right
ptv-trn-rt-oth-veh-fm-rear (6), -- ptv turning right hit by other vehicle from rear
appr-oth-veh-makes-lft-trn (7), -- approaching vehicle makes left turn
ptv-trn-lft-oth-veh-fm-ahd (8), -- ptv turning left hit by other vehicle from ahead
ptv-trn-lft-oth-veh-fm-lft (9), -- ptv turning left hit by other vehicle from left
ptv-trn-lft-oth-veh-fm-rt  (10), -- ptv turning left hit by other vehicle from right
ptv-trn-lft-oth-veh-fm-rear (11), -- ptv turning left hit by other vehicle from rear
oth-veh-on-lft-makes-rt-trn (12), -- vehicle on left turns right
ptv-and-oth-veh-trn-same-dir (13), -- ptv and other vehicle turning in same direction
ptv-hit-head-on            (14), -- head on collision
sideswp-passing-oth-veh   (15), -- sideswipe: passing other vehicle
sideswp-oth-veh-opposing  (16), -- sideswipe: other vehicle from opposite direction
sideswp-oth-veh-passing   (17), -- sideswipe: other vehicle passing ptv
oth-veh-chng-lanes        (18), -- other vehicle changing lanes
oth-veh-prkng-or-lvng     (19), -- other vehicle parking or leaving curb
oth-veh-prked              (20), -- other vehicle parked
ptv-chng-lanes             (21), -- ptv changing lanes
oth-veh-open-door          (22), -- other vehicle open door
oth-veh-lvng-drvwy         (23), -- other vehicle leaving alley or driveway
ptv-rearend-oth-veh       (24), -- ptv rearends other vehicle
oth-veh-rearend-ptv-trfc   (25), -- other vehicle rearends ptv in traffic
entr-bus-zone-oth-veh-prked (26), -- entering bus zone, other vehicle parked
entr-bus-zone-oth-veh-mving (27), -- entering bus zone, other vehicle moving
lving-bus-zone-oth-veh-prked (28), -- leaving bus zone, other vehicle parked
lving-bus-zone-oth-veh-mving (29), -- leaving bus zone, other vehicle moving
other-veh-rearend-ptv-bus-zone (30), -- ptv rearended in bus zone
with-mc-bike-etc            (31), -- with motorcycle, bicycle, etc
ptv-bking                  (32), -- ptv backing
oth-veh-bking               (33), -- other vehicle backing
oth-veh-sec-collision      (34), -- other vehicles secondary collision
ptv-stpd-oth-veh-trning    (35), -- ptv stopped- other vehicle turning
oth-veh-merg-fm-ramp        (36), -- other vehicle merging from on ramp
ptv-merg-fm-ramp            (37), -- ptv merging from on ramp
intersec-ptv-thru           (38), -- at intersection ptv going thru
intersec-ptv-trning          (39), -- at intersection ptv turning
ptv-entr-lv-bus-zone        (40), -- ptv entering or leaving bus zone
reserved-future-41           (41), -- unused code for now
non-intersec                 (42), -- non-intersection
all-oth-ped                  (43), -- all other pedestrian collisions
fo-entr-bus-zone              (44), -- fixed object entering bus zone
fo-bus-trning                 (45), -- fixed object ptv turning
fo-lving-bus-zone              (46), -- fixed object leaving bus zone
fo-other                      (47), -- fixed object other
}
```

```

with-curb-or-obj-in-st      (49), -- with curb or object in street
brding-at-curb-or-in-st    (50), -- boarding at curb or in street
brding-caught-frnt-dr     (51), -- boarding caught in front door
brding-caught-rear-dr     (52), -- boarding caught in rear door
alting-frnt-dr             (53), -- alighting front door
ptv-stped-onboard          (54), -- ptv stopped, onboard
reserved-future-55         (55), -- unused code for now
alting-rear-dr              (56), -- alighting rear door
reserved-future-57         (57), -- unused code for now
alting-caught-frnt-dr     (58), -- alighting caught in front door
alting-caught-rear-dr     (59), -- alighting caught in rear door
reserved-future-60         (60), -- unused code for now
fall-not-on-ptv             (61), -- fall before boarding or after alighting
pass-fall-ptv-strt          (62), -- passenger fall ptv starting
pass-fall-ptv-stp            (63), -- passenger fall ptv stopping
pass-fall-ptv-trn            (64), -- passenger fall ptv turning
pass-fall-ptv-norm           (65), -- passenger fall ptv moving normally
pass-caught-strk-door      (66), -- passenger caught or struck by door
reserved-future-67           (67), -- unused code for now
reserved-future-68           (68), -- unused code for now
reserved-future-69           (69), -- unused code for now
clothing                     (70), -- soiled or damaged clothing
injury-nonop                 (71), -- injury not due to operations
eviction                     (72),
rowdy-pass-inj-dmg          (73), -- rowdy passenger causes injury or damage
reserved-future-74           (74), -- unused code for now
reserved-future-75           (75), -- unused code for now
brkn-wndow-nonvandal        (76), -- broken window not caused by vandalism
pass-dispute                 (77), -- dispute between passengers
pass-mtrst-dispute          (78), -- dispute with passenger or motorist
oth-nonop-inc                (79), -- other nonoperating incident including witness reports
ptv-op-assault               (80), -- ptv operator assaulted
ill-pass                      (81), -- ill passenger
misc-dispute-eviction       (82), -- other miscellaneous dispute or eviction
trolley-pole-or-oh           (83), -- trolley pole or overhead mishap
trfc-interference             (84), -- interference with traffic
misc-op-incident              (85), -- other miscellaneous operating incident
vandalism                     (86),
sideswp-ptv-bad-stp          (87), -- sideswipe coach illegally parked or stopped
reserved-future-88           (88), -- unused code for now
fire-on-coach                 (89),
-- 90-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}

```

**The following data frames directly use this data element:**

**[IMIncident](#)**

**No messages were identified that directly use this data element**

## A.218 Data Element IM-Age {IM-5}

### Use:

The age of a person. Units are years.

### Remarks:

### ASN1:

IM-Age ::= UBYTE

**The following data frames directly use this data element:**

[IMPerson](#)

**No messages were identified that directly use this data element**

## A.219 Data Element IM-CareFacilityName {IM-6}

### Use:

The name of a care facility such as a hospital, or a trauma center.

### Remarks:

### ASN1:

IM-CareFacilityName ::= NAME20

**The following data frames directly use this data element:**

[IMInjury](#)

**No messages were identified that directly use this data element**

## A.220 Data Element IM-CurrentStatus {IM-11}

### Use:

The current status of an emergency response vehicle or team.

### Remarks:

### ASN1:

```
IM-CurrentStatus ::= ENUMERATED {
    available                      (1),
    responding                     (2),
    returning                      (3),
    maintenance                    (4),
    unavailable                   (5),
    otherIncident                 (6),
    -- 127-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMResponseUnit](#)

**No messages were identified that directly use this data element**

## A.221 Data Element IM-DetourType {IM-14}

### Use:

Identifies the type of detour.

### Remarks:

### ASN1:

```
IM-DetourType ::= ENUMERATED {
    ad-hoc                         (1), -- response to an incident, a detour is defined in real time
    as the need arises
    canned                          (2), -- response to an incident, a pre-specified detour is used
    short-term                      (3), -- need for detour known in advance, detour is incorporated
    into operator/vehicle assignments, itinerary planning
    long-term                       (4), -- advance to cover an entire need for detour known in
    schedule/pick period, detour is incorporated in the schedule and pick
    -- 5-127 reserved
    -- 128-255 local use
```

```
... -- # LOCAL_CONTENT  
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[CcNotifyDetour](#)

## A.222 Data Element IM-DispatcherID {IM-16}

**Use:**

The identification number of the dispatcher (transit or non-transit) giving the dispatch order.

**Remarks:**

**ASN1:**

IM-DispatcherID ::= ULONG

**The following data frames directly use this data element:**

[IMIncident](#)

[IMResponseUnit](#)

**No messages were identified that directly use this data element**

## A.223 Data Element IM-EmployeeFunction {IM-18}

### Use:

Employee function, such as supervisor, driver, etc. This covers response organization employees as well as transit employees.

### Remarks:

1 Command

2 Safety

3 Information

4 Liaison

5 Operations

6 Staging

7 Branch

8 Division

9 Strike Team

10 Company

11 Task Force

12 Group

13 Planning

14 Resource Unit

15 Situation Unit

16 Documentation Unit

17 Demobilization Unit

18 Technical Specialist

19 Logistics

20 Service Branch

21 Communications Unit

22 Medical Unit

23 Rehabilitation

- 24 Food Unit
- 25 Support Branch
- 26 Supply Unit
- 27 Facilities Unit
- 28 Ground Support Unit
- 29 Finance/Administration
- 30 Time Unit
- 31 Procurement Unit
- 32 Compensations Claims Unit
- 33 Cost Unit
- 34 Transit: full time operator
- 35 Transit: part time operator
- 36 Transit: conductor
- 37 Transit: engineer
- 38 Transit: maintenance
- 39 Transit: supervisor/manager
- 40 Transit: revenue collector
- 41 Transit: dispatcher
- 42-149 (reserved for standard codes)
- 150-255 (reserved for local use)

**ASN1:**

```
IM-EmployeeFunction ::= ENUMERATED {
  command                  (1), -- command
  safety                   (2), -- safety
  information              (3), -- information
  liaison                  (4), -- liaison
  operations               (5), -- operations
  staging                  (6), -- staging
  branch                   (7), -- branch
  division                 (8), -- division
  strike-team              (9), -- strike team
  company                  (10), -- company
  task-force               (11), -- task force
  group                    (12), -- group
  planning                 (13), -- planning
  resource-unit            (14), -- resource unit
```

```
situation-unit          (15), -- situation unit
documentation-unit      (16), -- documentation unit
demobilization          (17), -- demobilization unit
technical-specialist    (18), -- technical specialist
logistics                (19), -- logistics
service-branch           (20), -- service branch
communications           (21), -- communications unit
medical-unit              (22), -- medical unit
rehabilitation            (23), -- rehabilitation
food-unit                 (24), -- food unit
support-branch            (25), -- support branch
supply-unit                (26), -- supply unit
facilities-unit            (27), -- facilities unit
ground-support-unit       (28), -- ground support unit
administration             (29), -- finance/administration
time-unit                  (30), -- time unit
procurement-unit           (31), -- procurement unit
claims-unit                 (32), -- compensations claims unit
cost-unit                   (33), -- cost unit
transit-ft-operator         (34), -- Transit: full time operator
transit-pt-operator         (35), -- Transit: part time operator
transit-conductor            (36), -- Transit: conductor
transit-engineer              (37), -- Transit: engineer
transit-maintenance          (38), -- Transit: maintenance
transit-supervisor            (39), -- Transit: supervisor/ manager
transit-revenue-collector     (40), -- Transit: revenue collector
transit-dispatcher             (41), -- Transit: dispatcher
-- 42-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMResponsePerson](#)

**No messages were identified that directly use this data element**

## A.224 Data Element IM-EventIDSystem {IM-26}

### Use:

A unique event identification number generated by the receiving system. It is assumed (and could be written guidance) that the application will rollover EventID once per day, or at least once per month, so the ID remains unique over the life of the IM system.

### Remarks:

### ASN1:

IM-EventIDSystem ::= USHORT

**The following data frames directly use this data element:**

[IMIncident](#)

**No messages were identified that directly use this data element**

## A.225 Data Element IM-HomePhone {IM-33}

### Use:

The home telephone number of a person.

### Remarks:

### ASN1:

IM-HomePhone ::= TELEPHONE

**The following data frames directly use this data element:**

[IMPerson](#)  
[PICustomerProfile](#)  
[PIFoundItem](#)  
[PILostItem](#)

**No messages were identified that directly use this data element**

## A.226 Data Element IM-HumanFatalityCount {IM-34}

### Use:

The number of fatalities present at an incident.

### Remarks:

65,535 indicates 65,535 human fatalities or more

### ASN1:

IM-HumanFatalityCount ::= USHORT

### The following data frames directly use this data element:

[IMInjuryInfo](#)

No messages were identified that directly use this data element

## A.227 Data Element IM-HumanInjuryCount {IM-35}

### Use:

The number of injured persons present at an incident.

### Remarks:

65,535 indicates 65,535 injuries or more

### ASN1:

IM-HumanInjuryCount ::= USHORT

### The following data frames directly use this data element:

[IMInjuryInfo](#)

No messages were identified that directly use this data element

## A.228 Data Element IM-IncidentDescLong {IM-36}

### Use:

The long version of the textual description of an incident.

### Remarks:

### ASN1:

IM-IncidentDescLong ::= TEXTLONG

**The following data frames directly use this data element:**

[IMIncident](#)

**No messages were identified that directly use this data element**

## A.229 Data Element IM-IncidentDescShort {IM-37}

### Use:

The short version of the textual description of an incident.

### Remarks:

### ASN1:

IM-IncidentDescShort ::= FOOTNOTE

**The following data frames directly use this data element:**

[IMIncident](#)

**No messages were identified that directly use this data element**

## A.230 Data Element IM-IncidentDistribution {IM-88}

### Use:

Enumerates types of agencies/entities to which the incident information should be distributed.

### Remarks:

Agencies may elect to make this decision manually and/or programmatically without using this code.

### ASN1:

```
IM-IncidentDistribution ::= ENUMERATED {
    internal-only                  (1), -- only within the agency
    transit-agency                 (2), -- within agency, but elsewhere also
    county-police                  (3),
    state-police                   (4),
    all-police                     (5),
    medical                         (6),
    fire                            (7),
    other-transit                  (8), -- other transit agencies
    isps                            (9),
    news-media                      (10),
    city-police                     (11),
    federal-law-enf                (12),
    local-police                    (13),
    ambulance-units                (14),
    rescue-units                   (15),
    fire-units                      (16),
    hazmat-units                   (17),
    light-tow-unit                  (18),
    heavy-tow-unit                  (19),
    freeway-service-patrol          (20),
    state-dot                        (21),
    county-dot                      (22),
    city-dot                         (23),
    transit-maintenance             (24),
    -- 26-100 reserved
    -- 101-200 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

#### [IMIncident](#)

No messages were identified that directly use this data element

### A.231 Data Element IM-IncidentID {IM-38}

**Use:**

A unique identifier for an incident within an agency.

**Remarks:**

**ASN1:**

IM-IncidentID ::= NAME30

**The following data frames directly use this data element:**

[IMIncidentIden](#)

**The following messages directly use this data element:**

[ImUpdateAck](#)

### A.232 Data Element IM-IncidentProcedure {IM-39}

**Use:**

The procedure of addressing a specific type of incident.

**Remarks:**

**ASN1:**

IM-IncidentProcedure ::= TEXTLONG

**The following data frames directly use this data element:**

[IMIncident](#)

**No messages were identified that directly use this data element**

## A.233 Data Element IM-IncidentStatus {IM-41}

### Use:

A code which indicates a status of the incident.

### Remarks:

### ASN1:

```
IM-IncidentStatus ::= ENUMERATED {
  reported-not-verified      (1), -- Reported, not verified
  verified-no-response-yet    (2), -- Verified, no response applied
  verified-response-enroute   (3), -- Verified, response en route
  verified-response-on-scene  (4), -- Verified, response on scene
  responding                  (5), -- Being responded to
  cleared                     (6), -- Cleared
  -- 7-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[IMIncident](#)

No messages were identified that directly use this data element

## A.234 Data Element IM-InjuryNature {IM-44}

### Use:

The nature of the injury to a person involved in an incident.

### Remarks:

### ASN1:

```
IM-InjuryNature ::= FOOTNOTE
```

The following data frames directly use this data element:

[IMInjury](#)

No messages were identified that directly use this data element

## A.235 Data Element IM-OperatorInjured {IM-52}

### Use:

A flag indicating whether or not an operator is injured.

### Remarks:

### ASN1:

```
IM-OperatorInjured ::= ENUMERATED {
  no                      (0),  -- No
  yes                     (1),  -- Yes
  -- 2-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMPTVehicleInvolved](#)

**No messages were identified that directly use this data element**

## A.236 Data Element IM-OtherVehicleInvolvedID {IM-53}

### Use:

A unique number identifying non-transit vehicles involved in an accident. This number assigned by the Incident Management System.

### Remarks:

### ASN1:

```
IM-OtherVehicleInvolvedID ::= IDENL
```

**The following data frames directly use this data element:**

[IMIncident](#)

[IMOOtherVehicleInvolved](#)

**No messages were identified that directly use this data element**

## A.237 Data Element IM-PersonIdentifier {IM-54}

### Use:

A number or name of a person.

### Remarks:

#### ASN1:

```
IM-PersonIdentifier ::= NAME60
```

The following data frames directly use this data element:

[CPTEmployeeIden](#)  
[CPTOperatorIden](#)  
[IMPerson](#)  
[IMReportedBy](#)  
[IMResponsePerson](#)  
[PITravelerIden](#)

No messages were identified that directly use this data element

## A.238 Data Element IM-PostAccidentTest {IM-55}

### Use:

The post-accident impairment test(s) that are required following an incident type.

### Remarks:

#### ASN1:

```
IM-PostAccidentTest ::= FOOTNOTE
```

The following data frames directly use this data element:

[IMOOtherVehicleInvolved](#)  
[IMPTVehicleInvolved](#)

No messages were identified that directly use this data element

## A.239 Data Element IM-PropertyDamage {IM-57}

### Use:

A short description of the property damage resulting from the incident.

### Remarks:

### ASN1:

```
IM-PropertyDamage ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[IMInjuryInfo](#)

**No messages were identified that directly use this data element**

## A.240 Data Element IM-ResponseAgencyID {IM-58}

### Use:

An identifying code or name for a specific agency that may respond to an incident. The first 2 characters are a code for the type of agency and consequently, for the identifier. The last 18 characters are the identifiers for the Incident Management response agency. If the agency ID is smaller than 19 characters, it is shifted to the most significant character after the 2 character code. The ID must be a valid identifier assigned by the designated response agency.

### Remarks:

### ASN1:

```
IM-ResponseAgencyID ::= NAME20
```

**The following data frames directly use this data element:**

[IMIncident](#)

[IMReportedBy](#)

[IMResponsePerson](#)

[IMResponseUnit](#)

**No messages were identified that directly use this data element**

## A.241 Data Element IM-ResponseCommands {IM-59}

### Use:

Commands transmitted to a response unit regarding what actions it should take to respond to the incident.

### Remarks:

### ASN1:

```
IM-ResponseCommands ::= ENUMERATED {
    verify                  (1), -- Travel to scene to verify a reported incident
    resolve                 (2), -- Travel to scene to resolve/clear the incident
    recall                  (3), -- Cancel/recall (return from incident scene)
    adjust-service          (4), -- Adjust service in response to the incident
    reroute                (5), -- Reroute traffic around incident scene
    -- 6-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMIncident](#)

**No messages were identified that directly use this data element**

## A.242 Data Element IM-ResponseEmployeeID {IM-60}

### Use:

The identification number of an individual public safety employee (transit or non-transit). This is not the same as CptEmployeeID, although CptEmployeeID could be used to designate transit employees involved in an incident response.

### Remarks:

0= not known

### ASN1:

IM-ResponseEmployeeID ::= IDENL

**The following data frames directly use this data element:**

[IMIncident](#)  
[IMResponseUnit](#)

**No messages were identified that directly use this data element**

## A.243 Data Element IM-ResponseUnitID {IM-62}

### Use:

Identification number of a vehicle (transit or non-transit).

### Remarks:

### ASN1:

IM-ResponseUnitID ::= IDENL

**The following data frames directly use this data element:**

[IMResponseUnit](#)

**No messages were identified that directly use this data element**

**A.244 Data Element IM-ResponseUnitType {IM-61}****Use:**

The type of response vehicle dispatched to an incident.

**Remarks:****ASN1:**

```
IM-ResponseUnitType ::= ENUMERATED {
    ptv-agency                  (1), -- Transit vehicle of property
    ptv-other-agency             (2), -- Transit vehicle of another property
    police                      (3), -- Transit Police
    supervisor                  (4), -- Transit Supervisor
    repair                      (5), -- Transit Repair Vehicle
    tow-truck                    (6), -- Transit Tow Truck
    track-repair                 (7), -- Track Repair Vehicle
    overhead-wire-repair        (8), -- Overhead Wire Repair Vehicle
    other-repair                 (9), -- Other Repair Vehicle
    emt-chief                   (10), -- Emergency Medical Service Chief
    advanced-life-support        (11), -- Advanced Life Support
    basic-life-support           (12), -- Basic Life Support
    quick-response-unit          (13), -- Quick Response Unit
    first-responder              (14), -- First Responder
    medical-evacuation           (15), -- Medical Evacuation
    other-medical-service         (16), -- Other Medical Service
    police-supervisor            (17), -- Supervisor-Police
    patrol-car                   (18), -- Patrol Car
    motorcycle                   (19), -- Motorcycle
    foot-patrol                  (20), -- Foot Patrol
    bicycle-patrol               (21), -- Bicycle Patrol
    air-unit                     (22), -- Air Unit
    k-9                          (23), -- K-9
    swat                         (24), -- SWAT
    hostage                       (25), -- Hostage
    bomb-squad                    (26), -- Bomb Squad
    detective                     (27), -- Detective
    medical-examiner              (28), -- Coroner / Medical Examiner
    police-other                  (29), -- Police - Other
    suppression-chief             (30), -- Suppression Chief
    engine                        (31), -- Engine / Plumber
    ladder                        (32), -- Ladder / Tower / Platform
    heavy-rescue                  (33), -- Heavy Rescue / Extrication
    brush                         (34), -- Brush / Off-Road
    hazmat                        (35), -- Hazardous Material
    tech-rescue                   (36), -- Technical Rescue
    foam-unit                     (37), -- Foam Unit
    investigator                  (38), -- Investigator / Fire Marshall
    inspector                     (39), -- Inspector
    -- 40-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMResponseUnit](#)

**No messages were identified that directly use this data element**

## A.245 Data Element IM-RestorationAction {IM-63}

**Use:**

A transit service restoration action ordered for an incident.

**Remarks:**

**ASN1:**

```
IM-RestorationAction ::= ENUMERATED {
    notKnown                      (0), -- not known
    substitute-Pullout            (1), -- Pull out veh. To substitute for veh. Involved
    incident-Pull-In              (2), -- Pull in the vehicle involved in the incident
    dispatch-shuttle              (3), -- Dispatch buses to operate a shuttle service
    adjust-headways                (4), -- Adjust service headways
    detour                         (5), -- Perform detours
    coach-change                   (6),
    filled-trip                    (7),
    late-expressed-for-sched     (8),
    late-run-no-action             (9),
    late-tun-turned-for-sched    (10),
    no-action                      (11),
    operator-request               (12),
    customer-request               (13),
    rerouted                       (14),
    road-call                      (15),
    fun-jump                        (16),
    service-change                 (17),
    unscheduled-standby           (18),
    supervisor-action              (19),
    other                           (20),
    removed                         (21),
    report-requested               (22),
    yard-change                     (23),
    scheduled-standby              (24),
    emergency-alarm                (25),
    -- 26-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMIncident](#)

**No messages were identified that directly use this data element**

## A.246 Data Element IM-RoleInIncident {IM-64}

### Use:

The role of a person in an incident.

### Remarks:

### ASN1:

```
IM-RoleInIncident ::= ENUMERATED {
notKnown                  (0), -- not known
fatality                   (1), -- Fatality
injury                     (2), -- Injury
witness                    (3), -- Witness
driver                      (4), -- Driver
transitEmployee             (5), -- Employee of Transit Agency
publicSafetyEmployee        (6), -- Employee of Other Public Safety Agency
report                      (7), -- Reporter
-- 8-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[IMPerson](#)

**No messages were identified that directly use this data element**

## A.247 Data Element IM-TransitImpacts {IM-71}

### Use:

Expected impacts to transit (other than delays, see ImRouteDelay).

### Remarks:

Although this is a footnote field, agencies may predefine impacts and allow them to be chosen from a pick list to populate a field of this type.

### ASN1:

```
IM-TransitImpacts ::= FOOTNOTE
```

### The following data frames directly use this data element:

[IMIncident](#)

No messages were identified that directly use this data element

## A.248 Data Element IM-VehicleColor {IM-72}

### Use:

The color of a vehicle.

### Remarks:

### ASN1:

```
IM-VehicleColor ::= NAME20
```

### The following data frames directly use this data element:

[IMVehicleIDInformation](#)

No messages were identified that directly use this data element

## A.249 Data Element IM-VehicleDamage {IM-73}

### Use:

A description of the damage to a vehicle.

### Remarks:

### ASN1:

```
IM-VehicleDamage ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[IMOtherVehicleInvolved](#)  
[IMPTVehicleInvolved](#)

**No messages were identified that directly use this data element**

## A.250 Data Element IM-VehicleDescription {IM-74}

### Use:

A description of a vehicle.

### Remarks:

### ASN1:

```
IM-VehicleDescription ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[IMVehicleIDInformation](#)

**No messages were identified that directly use this data element**

## A.251 Data Element IM-VehicleInvolvedType {IM-76}

### Use:

A code list which indicates the types of vehicles involved in an incident.

### Remarks:

### ASN1:

```
IM-VehicleInvolvedType ::= ENUMERATED {
    ptv                      (1), -- Public transit vehicle
    train                     (2), -- Train
    auto                      (3), -- Automobile
    truck                     (4), -- Truck
    motorbike                 (5), -- Motorbike
    bike                      (6), -- Bicycle
    farm-vehicle              (7),
    private-bus               (8),
    school-bus                (9),
    van                       (10),
    police-vehicle            (11),
    ambulance                 (12),
    fire-truck                 (13),
    fire-dept-other             (14),
    construction-vehicle       (15),
    light-rail-vehicle          (16),
    subway-vehicle              (17),
    commuter-train             (18),
    passenger-train             (19),
    freight-train              (20),
    -- 21-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[IMOtherVehicleInvolved](#)

No messages were identified that directly use this data element

## A.252 Data Element IM-VehicleMake {IM-77}

### Use:

The make of a vehicle.

### Remarks:

### ASN1:

```
IM-VehicleMake ::= NAME20
```

**The following data frames directly use this data element:**

[IMVehicleIDInformation](#)

**No messages were identified that directly use this data element**

## A.253 Data Element IM-VehicleModel {IM-78}

### Use:

The model of a vehicle.

### Remarks:

### ASN1:

```
IM-VehicleModel ::= NAME20
```

**The following data frames directly use this data element:**

[IMVehicleIDInformation](#)

**No messages were identified that directly use this data element**

## A.254 Data Element IM-VehicleOccupantCount {IM-79}

### Use:

The number of people in a vehicle involved in an accident.

### Remarks:

255 indicates "255 or more occupants"

### ASN1:

```
IM-VehicleOccupantCount ::= UBYTE
```

### The following data frames directly use this data element:

[IMOtherVehicleInvolved](#)  
[IMPTVehicleInvolved](#)

### The following messages directly use this data element:

[ImSilentAlarm](#)

## A.255 Data Element IM-VehicleState {IM-81}

### Use:

The state in which a vehicle is registered.

### Remarks:

The two letter postal state abbreviation shall be used.

### ASN1:

```
IM-VehicleState ::= NAME2
```

### The following data frames directly use this data element:

[IMVehicleIDInformation](#)

No messages were identified that directly use this data element

## A.256 Data Element IM-VehicleTag {IM-82}

### Use:

The vehicle tag or license plate number.

### Remarks:

### ASN1:

```
IM-VehicleTag ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[IMVehicleIDInformation](#)

**No messages were identified that directly use this data element**

## A.257 Data Element IM-VehicleYear {IM-83}

### Use:

The model year of a vehicle.

### Remarks:

### ASN1:

```
IM-VehicleYear ::= USHORT
```

**The following data frames directly use this data element:**

[IMVehicleIDInformation](#)

**No messages were identified that directly use this data element**

## A.258 Data Element IM-WitnessStatement {IM-85}

### Use:

Text of witness describing (an aspect of) the incident.

### Remarks:

### ASN1:

IM-WitnessStatement ::= TEXTLONG

**The following data frames directly use this data element:**

[IMWitness](#)

**No messages were identified that directly use this data element**

## A.259 Data Element IM-WorkPhone {IM-86}

### Use:

The telephone number where a person can be reached during normal business hours or during that person's work shift hours.

### Remarks:

### ASN1:

IM-WorkPhone ::= TELEPHONE

**The following data frames directly use this data element:**

[IMPerson](#)  
[PICustomerProfile](#)  
[PIFoundItem](#)  
[PILostItem](#)

**No messages were identified that directly use this data element**

## A.260 Data Element OB-DataLoadID {OB-100}

### Use:

Identify a data load for an onboard component.

### Remarks:

#### ASN1:

OB-DataLoadID ::= UBYTE

**The following data frames directly use this data element:**

[OBSWDataLoadID](#)

**No messages were identified that directly use this data element**

## A.261 Data Element OB-DataLoadName {OB-101}

### Use:

Identify a name for data load for an onboard component.

### Remarks:

#### ASN1:

OB-DataLoadName ::= NAME17

**The following data frames directly use this data element:**

[OBSWDataLoadID](#)

**No messages were identified that directly use this data element**

## A.262 Data Element OB-J1587-DGPSIssueofData {OB-174}

**Use:**

DGPS Differential Correction.

**Remarks:**

**ASN1:**

OB-J1587-DGPSIssueofData ::= UBYTE

**The following data frames directly use this data element:**

[OBBusDGPSDifferentialCorrection](#)

**No messages were identified that directly use this data element**

## A.263 Data Element OB-J1587-DGPSPseudorangeCorrection {OB-176}

**Use:**

DGPS Differential Correction

**Remarks:**

**ASN1:**

OB-J1587-DGPSPseudorangeCorrection ::= SHORT

**The following data frames directly use this data element:**

[OBBusDGPSDifferentialCorrection](#)

**No messages were identified that directly use this data element**

## A.264 Data Element OB-J1587-DGPSRangeRateCorrection {OB-175}

**Use:**

DGPS Differential Correction

**Remarks:**

**ASN1:**

OB-J1587-DGPSRangeRateCorrection ::= BYTE

**The following data frames directly use this data element:**

[OBBusDGPSDifferentialCorrection](#)

**No messages were identified that directly use this data element**

## A.265 Data Element OB-J1587-DGPSScaleFactorUDRESatelliteID {OB-177}

**Use:**

DGPS Differential Correction.

**Remarks:**

**ASN1:**

OB-J1587-DGPSScaleFactorUDRESatelliteID ::= UBYTE

**The following data frames directly use this data element:**

[OBBusDGPSDifferentialCorrection](#)

**No messages were identified that directly use this data element**

## A.266 Data Element OB-J1587-DGPSZCountStationHealth {OB-178}

**Use:**

DGPS Differential Correction

**Remarks:**

**ASN1:**

```
OB-J1587-DGPSZCountStationHealth ::= USHORT
```

**The following data frames directly use this data element:**

[OBBusDGPSDifferentialCorrection](#)

**No messages were identified that directly use this data element**

## A.267 Data Element OB-J1587-PassengerCounterPatronCount {OB-243}

**Use:**

Passenger Count- Patron Count

**Remarks:**

**ASN1:**

```
OB-J1587-PassengerCounterPatronCount ::= UBYTE
```

**The following data frames directly use this data element:**

[CCPTVLocation](#)  
[CCPollResponseContents](#)  
[FCTransactionRecord](#)  
[OBStoppointRecord](#)  
[TSPStatus](#)  
[TSPStrategyEntry](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcLocationReport](#)  
[ObLocation](#)

## A.268 Data Element OB-J1587-SoftwareIdentification {OB-200}

**Use:**

Software Identification string as defined by SAE J-1587.

**Remarks:**

**ASN1:**

```
OB-J1587-SoftwareIdentification ::= NAME30
```

**The following data frames directly use this data element:**

[OBSWComponent](#)

**No messages were identified that directly use this data element**

## A.269 Data Element OB-J1587-VelocityVectorHeading {OB-205}

**Use:**

Velocity Vector- Heading

**Remarks:**

**ASN1:**

```
OB-J1587-VelocityVectorHeading ::= USHORT
```

**The following data frames directly use this data element:**

[OBBusVelocityVector](#)

**No messages were identified that directly use this data element**

## A.270 Data Element OB-J1587-VelocityVectorPitch {OB-206}

**Use:**

Velocity Vector- Pitch

**Remarks:**

**ASN1:**

OB-J1587-VelocityVectorPitch ::= SHORT

**The following data frames directly use this data element:**

[OBBusVelocityVector](#)

**No messages were identified that directly use this data element**

## A.271 Data Element OB-J1587-VelocityVectorSpeed {OB-204}

**Use:**

Velocity Vector- Speed

**Remarks:**

In accordance with J-1587, this data element is an unsigned byte whose value is expressed in half mile per hour increments with an offset to allow backing up to be expressed. A value of 0 indicates a speed of -15mph, a value of 1 indicates -14.5mph and so on. Values in excess of 112.5 mph cannot be expressed.

**ASN1:**

OB-J1587-VelocityVectorSpeed ::= UBYTE

**The following data frames directly use this data element:**

[CCAlarm](#)  
[CCOffRouteTrack](#)  
[CCPTVLocation](#)  
[CCPollResponseContents](#)  
[IMOOtherVehicleInvolved](#)

[OBBusVelocityVector](#)  
[TSPStatus](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcLocationReport](#)  
[CcManualAlarm](#)  
[CcPassengerAlarm](#)  
[ObLocation](#)

## A.272 Data Element OB-LocationReportReason {OB-830}

### Use:

Identify the trigger type for a location report sent to onboard components.

### Remarks:

001- Initial Report upon subscription request

002- Vehicle reached timepoint

003-Vehicle arrived at stoppoint

004-Vehicle departed stop point

005-Maximum duration since last report expired,

006 indicates the PTV arrived at a defined event location,

007 & 008 indicate the start or end of a scheduled trip.

009-012 indicate the vehicles route or schedule adherence status changed (onto or off schedule or route).

### ASN1:

```
OB-LocationReportReason ::= ENUMERATED {
  initialReport          (1),
  timepoint              (2),
  arrivestop              (3),
  departstop              (4),
  timeout                (5),
  event-location          (6),
  starttrip               (7),
  endtrip                 (8),
  adherence-on-sched     (9),
  adherence-off-sched    (10),
  adherence-on-route     (11),
  adherence-off-route    (12),
  -- 13-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[ObLocation](#)

### **A.273 Data Element OB-MID {OB-779}**

**Use:**

An identifier which is associated with the functional address for the message origin or destination. This number is the message identification assignment transmitted by an on-board device or system. The data element is imported from SAE J1708/J1587. Numbers between 257 and 512 are assigned by this standard (and not SAE).

**Remarks:**

SAE J1708/J1587 (1..512)

**ASN1:**

OB-MID ::= UBYTE

**The following data frames directly use this data element:**

[CCParameterReportRequest](#)  
[CCParameterThreshold](#)  
[CPTLoadFileHeader](#)  
[CPTPTVehicle](#)  
[CPTUnloadFileHeader](#)  
[OBSWComponent](#)

**The following messages directly use this data element:**

[CptFilesToUnload](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[ObLocation](#)  
[ObLocationSub](#)  
[ObMenuResponse](#)  
[ObNotifyMenu](#)  
[ObPassengerCount](#)  
[ObPassengerCountSub](#)  
[ObSignon](#)  
[ObSignonSub](#)  
[ObWLanStatus](#)  
[ObWLanStatusSub](#)

## A.274 Data Element OB-MenuItemText {OB-835}

### Use:

Provide the text of a menu selection

### Remarks:

### ASN1:

```
OB-MenuItemText ::= NAME16
```

No data frames were identified that directly use this data element

The following messages directly use this data element:

[ObNotifyMenu](#)

## A.275 Data Element OB-MenuSelection {OB-834}

### Use:

Identify the result of a menu selection request.

### Remarks:

### ASN1:

```
OB-MenuSelection ::= ENUMERATED {
  reserved                  (0),
  menu-item-1Selected       (1),
  menu-item-2Selected       (2),
  menu-item-3Selected       (3),
  menu-item-4Selected       (4),
  menu-item-5Selected       (5),
  menu-item-6Selected       (6),
  menu-item-7Selected       (7),
  menu-item-8Selected       (8),
  menu-item-9Selected       (9),
  menu-item-10Selected      (10),
  Reserved11                (11),
  Reserved12                (12),
  Reserved13                (13),
```

```
Reserved14          (14),
Timeout            (15),
MDT-unable-to-process-request (16),
Request-invalid    (17)
-- 19-100 reserved
-- 120-200 local use
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[ObMenuResponse](#)

## A.276 Data Element OB-PGN {OB-838}

**Use:**

Specifies a SAE J-1939 parameter group number

**Remarks:**

**ASN1:**

OB-PGN ::= ULONG

**The following data frames directly use this data element:**

[OBParameterID](#)

**No messages were identified that directly use this data element**

## A.277 Data Element OB-PID {OB-785}

### Use:

This conveys a parameter identification number defined in the VAN standard.

### Remarks:

#### ASN1:

OB-PID ::= ULONG

**The following data frames directly use this data element:**

[OBParameterID](#)

**No messages were identified that directly use this data element**

## A.278 Data Element OB-Parameter {OB-831}

### Use:

Convey an onboard parameter's value in a series of octets. Parameter types are identified using the OB-PID data element. The number of octets required to represent the parameter depends on the parameter type.

### Remarks:

Because this field is limited to a maximum of 16 octets, it cannot convey some of the longer SAE J 1587 defined parameters.

#### ASN1:

OB-Parameter ::= MEMSHORT16

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.279 Data Element OB-ParameterNumericValue {OB-836}

### Use:

To convey a numeric onboard parameter value.

### Remarks:

#### ASN1:

```
OB-ParameterNumericValue ::= LONG
```

**The following data frames directly use this data element:**

[OBParameterValue](#)

**No messages were identified that directly use this data element**

## A.280 Data Element OB-ParameterStringValue {OB-837}

### Use:

To convey a string onboard parameter value.

### Remarks:

#### ASN1:

```
OB-ParameterStringValue ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[OBParameterValue](#)

**No messages were identified that directly use this data element**

## A.281 Data Element OB-PassengerAlighting {OB-782}

### Use:

The number of passengers that are counted alighting a PT vehicle in revenue service.

### Remarks:

#### ASN1:

OB-PassengerAlighting ::= USHORT

**The following data frames directly use this data element:**

[FCBoardingAlightingRecord](#)  
[OBBoardAlightRecord](#)  
[OBStoppointRecord](#)

**No messages were identified that directly use this data element**

## A.282 Data Element OB-PassengerBoarding {OB-783}

### Use:

The number of passengers that are counted boarding a PT vehicle in revenue service.

### Remarks:

#### ASN1:

OB-PassengerBoarding ::= USHORT

**The following data frames directly use this data element:**

[FCBoardingAlightingRecord](#)  
[OBBoardAlightRecord](#)  
[OBStoppointRecord](#)

**No messages were identified that directly use this data element**

## A.283 Data Element OB-Rate {OB-786}

### Use:

The rate or frequency at which a PT vehicle should report the status of one of its parameters.

### Remarks:

The unit is number of seconds between reports.

### ASN1:

OB-Rate ::= USHORT

### The following data frames directly use this data element:

[CCParameterRateConfiguration](#)

No messages were identified that directly use this data element

## A.284 Data Element OB-SPN {OB-839}

### Use:

Suspect Parameter Number specifies a parameter within a SAE J-1939 defined Parameter Group Number(PGN)

### Remarks:

### ASN1:

OB-SPN ::= ULONG

### The following data frames directly use this data element:

[OBParameterID](#)

No messages were identified that directly use this data element

## A.285 Data Element OB-ScheduleAdherenceOffset {OB-793}

### Use:

The time (in seconds) that a PT vehicle is ahead or behind its trip schedule.

### Remarks:

Negative seconds signify ahead of schedule, positive seconds denote behind schedule.

### ASN1:

OB-ScheduleAdherenceOffset ::= LONG

### The following data frames directly use this data element:

[CCHistoricalAdherenceRecord](#)  
[OBStoppointRecord](#)  
[PIPaternServiceEntry](#)  
[TSPStatus](#)  
[TSPStrategyEntry](#)

No messages were identified that directly use this data element

## A.286 Data Element OB-TextMessage {OB-832}

### Use:

Convey a text string for display on the operators display, or an onboard sign.

### Remarks:

### ASN1:

OB-TextMessage ::= FOOTNOTE

### The following data frames directly use this data element:

[CCCannedAnnouncementRecord](#)

### The following messages directly use this data element:

[CcVehicleShutdownAck](#)  
[CcVehicleStartupAck](#)

## A.287 Data Element PI-ADAAccess {PI-2}

### Use:

A description of whether a transit stop is ADA accessible.

### Remarks:

### ASN1:

```
PI-ADAAccess ::= ENUMERATED {
    notCompliant          (1),
    fullyCompliant         (2),
    mobilityChallengedAccess (3),
    visuallyImpairedAccess (4),
    hearingImpairedAccess (5),
    mobility-VisuallyImpairedAccess (6),
    visually-HearingImpairedAccess (7),
    mobility-MobilityImpairedAccess (8),
    -- 9-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CPTStoppoint](#)  
[PIAccessibility](#)

**No messages were identified that directly use this data element**

## A.288 Data Element PI-ADANeed {PI-3}

### Use:

A traveler's need for ADA accessibility

### Remarks:

### ASN1:

```
PI-ADANeed ::= ENUMERATED {
    noADANeed          (1),
    mobilityAssistanceRequired (2),
    visualAssistanceRequired (3),
    audioAssistanceRequired (4),
    otherAssistanceRequired (5),
    visual-AudioAssistanceRequired (6),
    visual-MobilityAssistanceRequired (7),
    audio-MobilityAssistanceRequired (8),
    visual-Audio-MobilityAssistanceRequired (9),
    -- 10-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[PITripRequestFareConstraints](#)

No messages were identified that directly use this data element

## A.289 Data Element PI-AmenityID {PI-4}

### Use:

A unique identifier of an amenity within an agency. Note that PI-AmenityID uniquely identifies an instance of an amenity, whereas PI-AmenityName identifies the class of an amenity.”

### Remarks:

### ASN1:

PI-AmenityID ::= NAME30

**The following data frames directly use this data element:**

[PIAmenityIden](#)

**No messages were identified that directly use this data element**

## A.290 Data Element PI-AmenityName {PI-5}

### Use:

The name of an amenity. The name of the amenity implicitly identifies its type and purpose, for example “wheelchair access”, “bench”, “shelter”, “ticket vending machine”, “information booth”, “kiosk”. Agencies may create locally defined lists of the allowed amenity names for use in their agency or service areas.”

### Remarks:

### ASN1:

PI-AmenityName ::= NAME30

**The following data frames directly use this data element:**

[PIAmenity](#)  
[PIAmenityIden](#)

**No messages were identified that directly use this data element**

## A.291 Data Element PI-AmenityStatus {PI-6}

### Use:

Indicates whether an amenity is in operation or not.

### Remarks:

### ASN1:

```
PI-AmenityStatus ::= ENUMERATED {
    outOfOrder              (1),
    operational              (2),
    -- 3-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PIAmenity](#)

**No messages were identified that directly use this data element**

## A.292 Data Element PI-AnnouncementID {PI-135}

### Use:

A unique identifier for a publicly available agency announcement.

### Remarks:

### ASN1:

```
PI-AnnouncementID ::= NAME30
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.293 Data Element PI-AudioFormat {PI-120}

### Use:

Identify the format in which audio is recorded.

### Remarks:

### ASN1:

```
PI-AudioFormat ::= ENUMERATED {
  WAV                      (1),
  MP3                      (3),
  -- 4-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CCCannedAnnouncementRecord](#)

**The following messages directly use this data element:**

[CcAnnouncementInfo](#)

## A.294 Data Element PI-BinaryAudioData {PI-104}

### Use:

Convey the binary data comprising a sound or audio announcement.

### Remarks:

The binary format is defined using the PI-AudioFormat data element.

### ASN1:

```
PI-BinaryAudioData ::= MEMLONG
```

**The following data frames directly use this data element:**

[CCCannedAnnouncementRecord](#)  
[CCDestinationSignRule](#)  
[CCStopAnnunciationRecord](#)  
[PIEventAnnouncement](#)

**The following messages directly use this data element:**

[CcAnnouncementInfo](#)

## A.295 Data Element PI-BinaryImageData {PI-118}

**Use:**

Convey the binary data comprising a graphical image.

**Remarks:**

The binary format employed is defined using the PI-GraphicFormat data element.

**ASN1:**

PI-BinaryImageData ::= MEMLONG

**The following data frames directly use this data element:**

[CCCannedAnnouncementRecord](#)  
[CCDestinationSignMessage](#)  
[CCDetourRecord](#)  
[CPTPhotograph](#)  
[PIMap](#)  
[SPFeatureSymbol](#)  
[SPIntDirection](#)  
[SPInteriorLocation](#)

**No messages were identified that directly use this data element**

## A.296 Data Element PI-BinaryVideoData {PI-122}

**Use:**

Convey the binary data comprising a video sequence.

**Remarks:**

**ASN1:**

PI-BinaryVideoData ::= MEMLONG

**The following data frames directly use this data element:**

[CCVideoRecord](#)  
[SPIntDirection](#)

**The following messages directly use this data element:**

[CcVideoFeed](#)

## **A.297 Data Element PI-CustomerSubscriptionType {PI-127}**

**Use:**

Define the type of subscription a customer has requested.

**Remarks:**

**ASN1:**

```
PI-CustomerSubscriptionType ::= ENUMERATED {
  newsletter                  (1),
  service-bulletin             (2),
  service-changes              (3),
  -- 4-100 reserved
  -- 101-200 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PICustSubscription](#)

**No messages were identified that directly use this data element**

## A.298 Data Element PI-DMSMessage {PI-17}

### Use:

A free text data element used for sending text messages for display to dynamic message signs.

### Remarks:

#### ASN1:

```
PI-DMSMessage ::= NAME60
```

#### The following data frames directly use this data element:

[CCCannedAnnouncementRecord](#)  
[CCDestinationSignMessage](#)  
[CCDetourRecord](#)  
[PIEventAnnouncement](#)  
[PIGTFSTrips](#)  
[PISchedAdherenceCountdown](#)  
[PIStopPatternRouteEntry](#)

#### The following messages directly use this data element:

[CcAnnouncementInfo](#)

## A.299 Data Element PI-DeliveryMechanism {PI-128}

### Use:

Define the mechanism by which customer's requested subscription should be delivered.

### Remarks:

#### ASN1:

```
PI-DeliveryMechanism ::= ENUMERATED {
  mail                      (1),
  email                     (2),
  sms-cellphone             (3),
  sms-pager                 (4),
  voice-homephone           (5),
  voice-cellphone           (6),
  voice-workphone           (7),
  fax                       (8),
  -- 9-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

**[PICustSubscription](#)**

**No messages were identified that directly use this data element**

## A.300 Data Element PI-EstimatedArrivalRange {PI-19}

### Use:

The code for an estimated range within which a transit vehicle serving a specific trip will arrive at a stop point. This object is used in the PiSchedAdherenceRange message.

### Remarks:

### ASN1:

```
PI-EstimatedArrivalRange ::= ENUMERATED {
onTime                  (1), -- On-time
early                   (2), -- Early
lateOneMin              (3), -- 0-1 minutes late
lateOneTwoMin           (4), -- 1-2 minutes late
lateTwoThreeMin          (5), -- 2-3 minutes late
lateTwoFourMin           (6), -- 2-4 minutes late
lateThreeFourMin         (7), -- 3-4 minutes late
lateThreeFiveMin         (8), -- 3-5 minutes late
lateFourFiveMin          (9), -- 4-5 minutes late
lateTwoFiveMin           (10), -- 2-5 minutes late
lateFiveSevenMin         (11), -- 5-7 minutes late
lateSevenTenMin          (12), -- 7-10 minutes late
lateFiveTenMin           (13), -- 5-10 minutes late
lateTenFifteenMin        (14), -- 10-15 minutes late
lateFifteenTwentyMin     (15), -- 15-20 minutes late
lateMoreThanTwentyMin    (16), -- More than 20 minutes late
earlyOneMin              (17), -- 0-1 minutes early
earlyOneTwoMin            (18), -- 1-2 minutes early
earlyTwoThreeMin          (19), -- 2-3 minutes early
earlyTwoFourMin           (20), -- 2-4 minutes early
earlyThreeFourMin         (21), -- 3-4 minutes early
earlyThreeFiveMin         (22), -- 3-5 minutes early
earlyFourFiveMin          (23), -- 4-5 minutes early
earlyTwoFiveMin           (24), -- 2-5 minutes early
earlyFiveSevenMin         (25), -- 5-7 minutes early
earlySevenTenMin          (26), -- 7-10 minutes early
earlyFiveTenMin           (27), -- 5-10 minutes early
earlyTenFifteenMin        (28), -- 10-15 minutes early
earlyFifteenTwentyMin     (29), -- 15-20 minutes early
earlyMoreThanTwentyMin    (30),
-- 31-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
```

}

**The following data frames directly use this data element:**

[PISchedAdherenceRange](#)

**No messages were identified that directly use this data element**

### **A.301 Data Element PI-GTFSLatitude {PI-139}**

**Use:**

This element is only used with the GTFS frames and messages to convey latitude in degrees, minutes, seconds.

**Remarks:**

**ASN1:**

PI-GTFSLatitude ::= NAME20

**The following data frames directly use this data element:**

[PIGTFSStops](#)

**No messages were identified that directly use this data element**

### A.302 Data Element PI-GTFSLongitude {PI-140}

#### Use:

This element is only used with the GTFS frames and messages to convey longitude in degrees, minutes, seconds.

#### Remarks:

#### ASN1:

```
PI-GTFSLongitude ::= NAME20
```

**The following data frames directly use this data element:**

[PIGTFSStops](#)

**No messages were identified that directly use this data element**

### A.303 Data Element PI-GTFSNormalizedDistance {PI-141}

#### Use:

This element is only used with GTFS frames and messages to convey normalized distance. GTFS allows for any unit of measure.

#### Remarks:

#### ASN1:

```
PI-GTFSNormalizedDistance ::= NAME10
```

**The following data frames directly use this data element:**

[PIGTFSStopTimes](#)

**No messages were identified that directly use this data element**

### A.304 Data Element PI-GTFSRouteDesc {PI-143}

#### Use:

This element is only used with the GTFS frames and messages to convey a detailed route description.

#### Remarks:

#### ASN1:

```
PI-GTFSRouteDesc ::= NAME40
```

#### The following data frames directly use this data element:

[PIGTFSRoutes](#)

No messages were identified that directly use this data element

### A.305 Data Element PI-GTFSTimeZone {PI-142}

#### Use:

This element is only used with the GTFS frames and messages to convey a specific time zone.

#### Remarks:

#### ASN1:

```
PI-GTFSTimeZone ::= NAME60
```

#### The following data frames directly use this data element:

[PIGTFSAgency](#)

[PIGTFSStops](#)

No messages were identified that directly use this data element

### A.306 Data Element PI-GeoZoneID {PI-131}

#### Use:

Provide a unique numeric identifier for a geographical zone.

#### Remarks:

Zones that are contained entirely within a single state shall have numbers in the range 1-32768. Zones that include areas of more than one state shall have a number in the range 32769-65535, and this number shall be mutually assigned to the shared zone by the states involved. See data frame PIGeoZoneIden.

#### ASN1:

```
PI-GeoZoneID ::= NAME30
```

#### The following data frames directly use this data element:

[PIGeoZoneIden](#)

No messages were identified that directly use this data element

### A.307 Data Element PI-GeoZoneName {PI-132}

#### Use:

A locally defined name for a geographical zone. A zone can be any type of locally defined geographical area.

#### Remarks:

#### ASN1:

```
PI-GeoZoneName ::= NAME30
```

#### The following data frames directly use this data element:

[PIGTFSFareRules](#)

[PIGTFSStops](#)

[PIGeoZoneIden](#)

[PIServiceBulletinIden](#)

No messages were identified that directly use this data element

### A.308 Data Element PI-GraphicFormat {PI-138}

#### Use:

Identify the format of graphics images, or video feeds.

#### Remarks:

#### ASN1:

```
PI-GraphicFormat ::= ENUMERATED {
    GIF                      (1),
    JPEG                     (2),
    MPEG-3                  (3),
    MPEG-4                  (4),
    -- 5-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[CCCannedAnnouncementRecord](#)  
[CCDestinationSignMessage](#)  
[CCDetourRecord](#)  
[CPTPhotograph](#)  
[PIMap](#)  
[SPFeatureSymbol](#)  
[SPIntDirection](#)  
[SPInteriorLocation](#)

The following messages directly use this data element:

[CcVideoFeed](#)

### A.309 Data Element PI-InformationType {PI-22}

#### Use:

The type(s) of information available at a transit facility or on a transit vehicle.

#### Remarks:

#### ASN1:

```
PI-InformationType ::= ENUMERATED {
    staticSign                  (1), -- static sign with station stop ID/name
    routes                     (2),
    schedules                  (3),
    fares                      (4),
    system-map                 (5),
    area-map                   (6),
    timetables                 (7), -- printed and removable
    real-time-information      (8),
    attended                   (9), -- agent or attended phone for information
    -- 10-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[PIAmenity](#)

No messages were identified that directly use this data element

### A.310 Data Element PI-LandmarkDesc {PI-71}

**Use:**

The description of a landmark.

**Remarks:**

**ASN1:**

PI-LandmarkDesc ::= FOOTNOTE

**The following data frames directly use this data element:**

[PILandmark](#)

**No messages were identified that directly use this data element**

### A.311 Data Element PI-LandmarkID {PI-119}

**Use:**

Assign a unique identifier to a landmark.

**Remarks:**

**ASN1:**

PI-LandmarkID ::= IDENL

**The following data frames directly use this data element:**

[PILandmark](#)

**The following messages directly use this data element:**

[PiDirections](#)

[PiDirectionsSub](#)

### A.312 Data Element PI-LandmarkName {PI-72}

**Use:**

The name of a landmark.

**Remarks:**

**ASN1:**

```
PI-LandmarkName ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PILandmark](#)

**The following messages directly use this data element:**

[PiDirections](#)  
[PiDirectionsSub](#)

### A.313 Data Element PI-LandmarkType {PI-133}

**Use:**

Define the type/category of a landmark.

**Remarks:**

Examples of residences as landmarks are a Governor's mansion, White House, and celebrity homes. This data element may be eliminated in favor of an LRMS data element in a future TCIP release.

**ASN1:**

```
PI-LandmarkType ::= ENUMERATED {
  airport                  (1),
  amusementPark           (2),
  bank                     (3),
  beach                    (4),
  bodyOfWater              (5),
  bridgeOverpass           (6),
  busStation               (7),
  campground               (8),
  capitalBuilding          (9),
  casino                   (10),
  cemetery                 (11),
  church                   (12),
  collegeUniversity        (13),
  conventionCenter          (14),
  countySeat                (15),
  courthouse                (16),
```

```
dam                      (17),
gasStation               (18),
golfCourse                (19),
governmentBuilding        (20),
historicalSite            (21),
hospital                  (22),
hotelMotel                (23),
indigenousReserve         (24),
intermodalStation          (25),
landfill                  (26),
library                   (27),
lighthouse                (28),
marina                    (29),
militaryFacility          (30),
monument                  (31),
museum                     (32),
observatory                (33),
officeBuilding             (34),
operaHouse                 (35),
park                      (36),
parkAndRide                (37),
parkingFacility            (38),
port                      (39),
residence                  (40),
resort                     (41),
restaurant                 (42),
school                     (43),
shoppingCenter              (44),
sportsArena                 (45),
swampWetland                (46),
theater                    (47),
trainStation                (48),
trolleyStation              (49),
tunnel                     (50),
volcano                    (51),
waterfall                  (52),
zoo                       (53),
otherLandmark               (54),
movieTheater                (55),
concertHall                 (56),
-- 57-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PILandmark](#)  
[SPFeature](#)  
[SPGISLayer](#)

**The following messages directly use this data element:**

[PiLandmarksList](#)  
[PiLandmarksListSub](#)

### A.314 Data Element PI-LostFoundItemID {PI-129}

**Use:**

Provide a unique identifier for reports of lost and found items.

**Remarks:**

**ASN1:**

PI-LostFoundItemID ::= IDENL

**The following data frames directly use this data element:**

[PIFoundItem](#)  
[PILostItem](#)

**The following messages directly use this data element:**

[PiReportFoundItemsAck](#)  
[PiReportLostItemsAck](#)

### A.315 Data Element PI-LostItemDisposition {PI-130}

**Use:**

Define what the agency did with a lost item.

**Remarks:**

**ASN1:**

```
PI-LostItemDisposition ::= ENUMERATED {
  stored                      (1),
  returned-to-owner            (2),
  to-police                   (3),
  to-animal-control           (4),
  unknown                     (5),
  discarded                   (6),
  to-charity                  (7),
  lost-by-agency              (8),
  -- 9-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PIFoundItem](#)  
[PILostItem](#)

**No messages were identified that directly use this data element**

### A.316 Data Element PI-MailingConfirmNum {PI-125}

**Use:**

Provide a number to confirm that a mailing request was validated and accepted for processing.

**Remarks:**

**ASN1:**

PI-MailingConfirmNum ::= IDENL

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[PiMailingResponse](#)

### A.317 Data Element PI-MarkerType {PI-23}

**Use:**

The type of marker that designates a transit stop as such. This may be a bus stop sign, a subway entrance, etc.

**Remarks:**

**ASN1:**

```
PI-MarkerType ::= ENUMERATED {
  posted                      (1), -- Posted Sign
  shelter                     (2), -- at Station or Shelter
  post                        (3), -- concrete post
  -- 4-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT}
```

}

**The following data frames directly use this data element:**

[CPTStoppoint](#)

**No messages were identified that directly use this data element**

### **A.318 Data Element PI-MaxCost {PI-24}**

**Use:**

The maximum cost a traveler is willing to spend to make a public transit trip.

**Remarks:**

Units are in the monetary instrument of the jurisdiction of the service provider unless specified by a FcMonetaryInstrument message. For example, the default value and resolution is 0.01 dollars when used by U.S.-based transit agencies. FcMonetaryInstrument should be used when more than one monetary instrument may be assumed.

**ASN1:**

PI-MaxCost ::= USHORT

**The following data frames directly use this data element:**

[PITripRequestFareConstraints](#)

**No messages were identified that directly use this data element**

### A.319 Data Element PI-NextArrivalCountdown {PI-29}

#### Use:

Indicates the number of seconds until the next transit vehicle servicing a specific trip will arrive at a specific stop point.

#### Remarks:

#### ASN1:

```
PI-NextArrivalCountdown ::= DURATION
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.320 Data Element PI-OffSchedule {PI-31}

#### Use:

Number of seconds a PT vehicle on a trip is expected to vary from the scheduled time at a timepoint or transit stop. This object is used in the PiSchedAdherenceOffSched message. Negative values indicate early, positive late.

#### Remarks:

#### ASN1:

```
PI-OffSchedule ::= DURATION
```

**The following data frames directly use this data element:**

[CCPTVLocation](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.321 Data Element PI-PIDTakeText {PI-114}

#### Use:

A take is a text insert into a larger text message to be displayed on a Passenger Information Display (PID). An example is that route name might be a take inserted into a next bus arrival announcement.

#### Remarks:

While the name type allows up to 30 characters, implementers should attempt to use shorter takes whenever feasible due to finite PID display capacity.

#### ASN1:

```
PI-PIDTakeText ::= NAME30
```

**The following data frames directly use this data element:**

[CCStopAnnunciationRecord](#)

**No messages were identified that directly use this data element**

### A.322 Data Element PI-PIDTextAttribute {PI-108}

#### Use:

Specify an attribute associated with text displayed on a Passenger Information Display (PID).

#### Remarks:

#### ASN1:

```
PI-PIDTextAttribute ::= ENUMERATED {
  flashingFast          (1),
  flashingSlow          (2),
  scrollLeftToRight     (3),
  scrollRightToLeft     (4),
  scrollTopToBottom     (5),
  scrollBottomToTop      (6),
  oneLineDisplay         (11),
  twoLineDisplay         (12),
  threeLineDisplay       (13),
  fourLineDisplay        (14),
  fiveLineDisplay        (15),
  sixLineDisplay         (16),
  sevenLineDisplay       (17),
  eightLineDisplay       (18),
  nineLineDisplay        (19),
  -- 20-127 reserved
  -- 128-255 local use
}
```

```
... -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data element:**

[CCCannedAnnouncementRecord](#)

**No messages were identified that directly use this data element**

### A.323 Data Element PI-PIDTextColor {PI-107}

**Use:**

Define the color that should be used to display text on a Passenger Information Display (PID).

**Remarks:**

**ASN1:**

```
PI-PIDTextColor ::= ENUMERATED {  
    red                  (1), -- red letters on dark background  
    yellow               (2), -- yellow letters on dark background  
    green                (3), -- green letters on dark background  
    blue                 (4), -- blue letters on dark background  
    white                (5), -- white letters on dark background  
    blackRed             (11), -- dark letters on red background  
    blackYellow           (12), -- dark letters on yellow background  
    blackGreen            (13), -- dark letters on green background  
    blackBlue              (14), -- dark letters on blue background  
    blackWhite             (15), -- dark letters on white background  
    -- 16-127 reserved  
    -- 128-200 local use  
    ... -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data element:**

[CCCannedAnnouncementRecord](#)

**No messages were identified that directly use this data element**

### A.324 Data Element PI-ParkingAvailability {PI-33}

**Use:**

The real-time availability of parking spaces at a particular parking facility.

**Remarks:**

**ASN1:**

```
PI-ParkingAvailability ::= USHORT
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.325 Data Element PI-ParkingEntranceID {PI-35}

**Use:**

A unique identification number assigned to a specific entrance of a parking facility.

**Remarks:**

**ASN1:**

```
PI-ParkingEntranceID ::= IDENT
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.326 Data Element PI-ParkingFacID {PI-36}

**Use:**

A unique identification number for a parking facility.

**Remarks:**

**ASN1:**

PI-ParkingFacID ::= IDENL

**The following data frames directly use this data element:**

[CPTStoppoint](#)  
[PIParkingFacility](#)

**The following messages directly use this data element:**

[PiStoppointParking](#)  
[PiStoppointParkingSub](#)

### A.327 Data Element PI-ParkingFacPhone {PI-37}

**Use:**

The customer information telephone number of a parking facility.

**Remarks:**

**ASN1:**

PI-ParkingFacPhone ::= TELEPHONE

**The following data frames directly use this data element:**

[PIParkingFacility](#)

**No messages were identified that directly use this data element**

### A.328 Data Element PI-ParkingOwnerName {PI-40}

#### Use:

The name of the company, agency, or person that owns a parking facility.

#### Remarks:

#### ASN1:

PI-ParkingOwnerName ::= NAME60

**The following data frames directly use this data element:**

[PIParkingFacility](#)

**No messages were identified that directly use this data element**

### A.329 Data Element PI-ParkingRates {PI-137}

#### Use:

The amount of money required to park at a parking facility. This can be expressed hourly, by the day, etc. This text field allows for a short explanation of the way parking cost is calculated.

#### Remarks:

If a monetary value is included, units are in the monetary instrument of the jurisdiction of the service provider unless specified by a FcMonetaryInstrument message. For example, the default value and resolution is 0.01 dollars when used by U.S.-based transit agencies. FcMonetaryInstrument should be used when the situation may be ambiguous.

#### ASN1:

PI-ParkingRates ::= TEXTLONG

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.330 Data Element PI-ParkingSpacesTotal {PI-43}

**Use:**

The total number of parking spaces in a parking facility.

**Remarks:**

**ASN1:**

```
PI-ParkingSpacesTotal ::= USHORT
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.331 Data Element PI-ParkingType {PI-45}

**Use:**

The physical characteristics of a parking facility.

**Remarks:**

**ASN1:**

```
PI-ParkingType ::= ENUMERATED {
  open                      (1),  -- Open lot
  garage                     (2),
  permit                     (3),
  contract                   (4),
  free                       (5),
  pay                        (6),
  other                      (7),
  -- 8-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### **A.332 Data Element PI-ParkingVehicleClass {PI-46}**

**Use:**

The vehicle class applicable to parking facility concerns.

**Remarks:**

**ASN1:**

```
PI-ParkingVehicleClass ::= ENUMERATED {
  all                  (1),
  compact              (2),
  standard             (3),
  van                 (4),
  oversized            (5),
  truck                (6),
  bus                 (7),
  -- 8-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.333 Data Element PI-ReasonNotSent {PI124}

**Use:**

Notifies why a requested mailing to a transit customer was not processed.

**Remarks:**

**ASN1:**

```
PI-ReasonNotSent ::= ENUMERATED {
    invalidAddress          (1),
    invalidTraveler          (2),
    invalidTravelerName      (3),
    invalidMaterials         (4),
    outOfStock               (5),
    -- 6-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[PiMailingResponse](#)

### A.334 Data Element PI-ServiceBulletinDes {PI-13}

**Use:**

A unique alpha-numeric designator (identifier) of a service bulletin within an agency.

**Remarks:**

**ASN1:**

```
PI-ServiceBulletinDes ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PIServiceBulletinIden](#)

**No messages were identified that directly use this data element**

### A.335 Data Element PI-ServiceBulletinID {PI-134}

#### Use:

Provide a unique identifier for a service bulletin within an agency. Service bulletins are used to specify temporary changes to service (e.g. detours, disruptions).

#### Remarks:

#### ASN1:

```
PI-ServiceBulletinID ::= NAME30
```

**The following data frames directly use this data element:**

[PIServiceBulletinIden](#)

**No messages were identified that directly use this data element**

### A.336 Data Element PI-ServiceStatusType {PI-101}

#### Use:

Classify a real-time service status request based on the type of real-time information request. The types are estimated arrival time range (range), interval until the arrival is estimated to occur (countdown), or deviation from schedule (off/sched).

#### Remarks:

#### ASN1:

```
PI-ServiceStatusType ::= ENUMERATED {
  range                  (1),
  countdown              (2),
  offSched               (3),
  departure               (4),
  -- 5-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PIServiceStatusRequest](#)

**No messages were identified that directly use this data element**

### A.337 Data Element PI-SignID {PI-47}

**Use:**

A unique identifier assigned by a transit agency for a posted sign at a transit facility.

**Remarks:**

**ASN1:**

```
PI-SignID ::= NAME30
```

**The following data frames directly use this data element:**

[PISignIden](#)

**No messages were identified that directly use this data element**

### A.338 Data Element PI-SignType {PI-48}

**Use:**

The type of sign posted at a transit facility (i.e., whether it is printed or can be changed electronically).

**Remarks:**

**ASN1:**

```
PI-SignType ::= ENUMERATED {
    dynamic                  (1),
    notDynamic               (2),
    other                    (3),
    -- 4-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PIStaticSign](#)

**No messages were identified that directly use this data element**

### **A.339 Data Element PI-SoundID {PI-121}**

**Use:**

Provide a unique identifier for a sound (or recorded voice announcement) stored in a PID.

**Remarks:**

**ASN1:**

PI-SoundID ::= IDENL

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.340 Data Element PI-StaticSignDescription {PI-49}

#### Use:

This data element is a description field for describing important characteristics of a static sign. The description may include how a sign is posted, what materials a sign is made of, the color(s) of a sign, what ADA requirements it meets, etc.

#### Remarks:

#### ASN1:

```
PI-StaticSignDescription ::= TEXTLONG
```

**The following data frames directly use this data element:**

[PIStaticSign](#)

**No messages were identified that directly use this data element**

### A.341 Data Element PI-StaticSignMessage {PI-50}

#### Use:

The message or content of a static sign.

#### Remarks:

#### ASN1:

```
PI-StaticSignMessage ::= TEXTLONG
```

**The following data frames directly use this data element:**

[PIStaticSign](#)

[SPIInteriorLocation](#)

**No messages were identified that directly use this data element**

### A.342 Data Element PI-TravelerCallBack {PI-52}

**Use:**

The telephone number that should be used to call a traveler back.

**Remarks:**

**ASN1:**

```
PI-TravelerCallBack ::= TELEPHONE
```

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.343 Data Element PI-TravelerContactMode {PI-53}

**Use:**

The means of contact with a customer including phone, pager, e-mail, etc.

**Remarks:**

**ASN1:**

```
PI-TravelerContactMode ::= ENUMERATED {
    phone                  (1),
    pager                  (2),
    regularMail            (3),
    e-mail                 (4),
    fax                    (5),
    -- 6-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.344 Data Element PI-TravelerEmail {PI-54}

**Use:**

A traveler's e-mail address.

**Remarks:**

**ASN1:**

PI-TravelerEmail ::= FOOTNOTE

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.345 Data Element PI-TravelerFax {PI-55}

**Use:**

The telephone number to a traveler's fax machine.

**Remarks:**

**ASN1:**

PI-TravelerFax ::= TELEPHONE

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.346 Data Element PI-TravelerFirstName {PI-56}

**Use:**

The first name of a traveler.

**Remarks:**

**ASN1:**

PI-TravelerFirstName ::= NAME20

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.347 Data Element PI-TravelerID {PI-57}

**Use:**

A unique identifier assigned by a transit agency to a traveler.

**Remarks:**

**ASN1:**

PI-TravelerID ::= NAME30

**The following data frames directly use this data element:**

[PITravelerIden](#)

**No messages were identified that directly use this data element**

### A.348 Data Element PI-TravelerLastName {PI-58}

**Use:**

The last name of a traveler.

**Remarks:**

**ASN1:**

```
PI-TravelerLastName ::= NAME20
```

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.349 Data Element PI-TravelerMailingMatl {PI-59}

**Use:**

Identification of materials to be mailed to a traveler.

**Remarks:**

**ASN1:**

```
PI-TravelerMailingMatl ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**The following messages directly use this data element:**

[PiMailingList](#)

### A.350 Data Element PI-TravellerPager {PI-60}

**Use:**

A traveler's pager telephone number.

**Remarks:**

**ASN1:**

PI-TravellerPager ::= TELEPHONE

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.351 Data Element PI-TravellerPhone {PI-61}

**Use:**

A traveler's phone number.

**Remarks:**

**ASN1:**

PI-TravellerPhone ::= TELEPHONE

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.352 Data Element PI-TravelerPhoneExtension {PI-62}

**Use:**

The phone extension, associated with PiTravelerphone for a specific traveler.

**Remarks:**

If extension is fewer than 10 characters, number should be right justified with zeros in the higher character field.

**ASN1:**

```
PI-TravelerPhoneExtension ::= TELEPHONE
```

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.353 Data Element PI-TravelerTriggerEvent {PI-63}

**Use:**

The event that indicates that a traveler should be contacted. For example, a change in the schedule of a route a traveler usually used may be an event trigger.

**Remarks:**

**ASN1:**

```
PI-TravelerTriggerEvent ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PITravelerProfile](#)

**No messages were identified that directly use this data element**

### A.354 Data Element PI-TripOptionID {PI-65}

#### Use:

A unique number assigned to each of multiple options for making a public transportation trip between a specified origin and a specified destination.

#### Remarks:

#### ASN1:

PI-TripOptionID ::= IDENL

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.355 Data Element PI-TripTotalCost {PI-66}

#### Use:

The total out of pocket cost to a traveler to make a specified trip by transit services.

#### Remarks:

Units are in the monetary instrument of the jurisdiction of the service provider unless specified by a FcMonetaryInstrument message. For example, the default value and resolution is 0.01 dollars when used by U.S.-based transit agencies. FcMonetaryInstrument should be used when more than one monetary instrument may be assumed.

#### ASN1:

PI-TripTotalCost ::= USHORT

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.356 Data Element PI-TripTotalTime {PI-67}

#### Use:

The total number of seconds a transit trip is estimated to take a traveler from his/her origin to his/her destination.

#### Remarks:

#### ASN1:

PI-TripTotalTime ::= DURATION

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.357 Data Element PI-TripTotalTransfers {PI-68}

#### Use:

The total number of transfers required to make a specified trip by transit.

#### Remarks:

#### ASN1:

PI-TripTotalTransfers ::= UBYTE

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.358 Data Element PI-WalkingDirections {PI-70}

#### Use:

The instructions given to a transit passenger explaining specifically how to go from one point to another. Examples include going from the passengers origin (e.g., home, office, etc.) to the transit stop point (e.g., bus stop, subway station, etc.), from a stop point where the passenger alights from a transit vehicle to his/her destination, or when transferring between transit services.

#### Remarks:

#### ASN1:

PI-WalkingDirections ::= TEXTLONG

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.359 Data Element SCH-ActivationDesignator {SCH-105}

#### Use:

Used to provide an agency-assigned designator to an event trigger.

#### Remarks:

#### ASN1:

SCH-ActivationDesignator ::= FOOTNOTE

**The following data frames directly use this data element:**

[SCHActivationIden](#)

**No messages were identified that directly use this data element**

### A.360 Data Element SCH-ActivationID {SCH-1}

**Use:**

A unique number assigned to an activation event.

**Remarks:**

**ASN1:**

SCH-ActivationID ::= NAME30

**The following data frames directly use this data element:**

[SCHActivationIden](#)

**No messages were identified that directly use this data element**

### A.361 Data Element SCH-ActivationName {SCH-106}

**Use:**

Used to provide an agency-assigned name to an event trigger.

**Remarks:**

**ASN1:**

SCH-ActivationName ::= NAME30

**The following data frames directly use this data element:**

[SCHActivationIden](#)

**No messages were identified that directly use this data element**

### A.362 Data Element SCH-ActivationType {SCH-2}

#### Use:

The type of activation event.

#### Remarks:

#### ASN1:

```
SCH-ActivationType ::= ENUMERATED {
    annTrigger                  (1), -- announcement trigger
    routeAdhOverride             (2), -- route adherence override
    signChange                   (3), -- sign change
    msgTrigger                   (4), -- driver message trigger/paddle (relief point)
    fareZone                     (5), -- fare zone
    radioZone                    (6), -- radio zone
    reliefTrigger                (7), -- relief trigger
    beginLayover                 (8), -- Begin Layover
    endLayover                   (9), -- End Layover
    beginTrip                     (10), -- Begin Trip
    endTrip                      (11), -- End Trip
    beginDeadhead                 (12), -- Begin Deadhead
    endDeadhead                   (13), -- End Deadhead
    routeAdhOverrideEnd          (14),
    beginAnn                     (15), -- start an announcement that runs continuously
    endAnn                       (16), -- end an announcement that runs continuously
    -- 17-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[SCHEvent](#)

No messages were identified that directly use this data element

### A.363 Data Element SCH-ActivationTypeDesc {SCH-3}

**Use:**

Text describing an Activation that is not listed under SCH-ActivationType.

**Remarks:**

**ASN1:**

```
SCH-ActivationTypeDesc ::= FOOTNOTE
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.364 Data Element SCH-AnnouncementDesignator {SCH-107}

**Use:**

Used to provide an agency-assigned designator to an announcement.

**Remarks:**

**ASN1:**

```
SCH-AnnouncementDesignator ::= FOOTNOTE
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.365 Data Element SCH-AnnouncementID {SCH-5}

**Use:**

A unique number assigned to an announcement within a transit agency.

**Remarks:**

**ASN1:**

SCH-AnnouncementID ::= IDENL

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.366 Data Element SCH-AnnouncementLocationID {SCH-6}

**Use:**

A unique number assigned to an announcement location within a transit agency.

**Remarks:**

**ASN1:**

SCH-AnnouncementLocationID ::= UBYTE

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.367 Data Element SCH-BlockDesignator {SCH-7}

#### Use:

A unique alpha-numeric designator (identifier) of a vehicle assignment.

#### Remarks:

TCIP uses SCH-BlockID as the unique numeric identifier for vehicle assignments. This element provides an additional, optional identifier which may be used to refer to a vehicle assignment.

#### ASN1:

```
SCH-BlockDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SCHBlockIden](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.368 Data Element SCH-BlockID {SCH-9}

#### Use:

A unique number assigned to a vehicle assignment. Typically, the assignment is given within a day type that is used to associate a sequence of trips to a transit vehicle.

#### Remarks:

#### ASN1:

```
SCH-BlockID ::= NAME30
```

**The following data frames directly use this data element:**

[PIGTFSTrips](#)  
[SCHBlockIden](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.369 Data Element SCH-BlockName {SCH-10}

#### Use:

The name of a vehicle assignment. For legacy systems the block name often identifies the major route served by the block and the pull out sequence.

#### Remarks:

#### ASN1:

```
SCH-BlockName ::= NAME30
```

**The following data frames directly use this data element:**

[SCHBlockIden](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.370 Data Element SCH-BlockSubset {SCH-104}

#### Use:

Identify an arbitrary grouping of blocks (vehicle assignments), defined by a transit business system. Groupings do not have to be disjoint sets.

#### Remarks:

#### ASN1:

```
SCH-BlockSubset ::= IDENT
```

**The following data frames directly use this data element:**

[SCHBlockSubsetsGroup](#)

**The following messages directly use this data element:**

[SchBlockSubsets](#)

### A.371 Data Element SCH-ConsistChangeType {SCH-111}

#### Use:

This data element defines the type of change that is planned to occur or that has occurred to the consist of a train.

#### Remarks:

#### ASN1:

```
SCH-ConsistChangeType ::= ENUMERATED {
    addCars                  (1), -- add cars to the train consist
    cutCars                  (2), -- remove cars from the train consist
    replace                  (3)  -- substitute cars in the train's consist
    -- 4-127 reserved
    -- 128-254 local use
}
```

The following data frames directly use this data element:

[SCHConsistChangeEvent](#)

No messages were identified that directly use this data element

### A.372 Data Element SCH-DayType {SCH-11}

#### Use:

A type of day with one or more characteristics that affect the operation of public transit service.

#### Remarks:

#### ASN1:

```
SCH-DayType ::= ENUMERATED {
    Sunday                  (1), -- Sunday
    Monday                  (2), -- Monday
    Tuesday                 (3), -- Tuesday
    Wednesday               (4), -- Wednesday
    Thursday                (5), -- Thursday
    Friday                  (6), -- Friday
    Saturday                (7), -- Saturday
    holiday                 (8), -- Holiday
    weekday                 (9), -- Weekday
    weekend                 (10), -- Weekend
```

```
weekdaySchoolClosed      (11), -- Weekday, school closed
-- 12-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[CCTripCancellationRecord](#)  
[CPTEmployee](#)  
[FCDayDefinition](#)  
[FCFareDefinitionRecord](#)  
[FCFarePolicyRecord](#)  
[PIAvailablePeriod](#)  
[PICustSubscription](#)  
[PIGTFSCalendar](#)  
[PIRecurringTrip](#)  
[PIXMLTimetable](#)  
[SCHBlockScheduleEntry](#)  
[SCHCalendarEntry](#)  
[SCHOperatorAssignment](#)  
[SCHRRunScheduleEntry](#)  
[SCHRRunningTimeEntry](#)  
[SCHServiceAtStop](#)  
[SCHTripInfo](#)  
[SCHVehicleAssignment](#)

**No messages were identified that directly use this data element**

### A.373 Data Element SCH-DayTypeDescription {SCH-12}

**Use:**

The description of a user-defined SCH-DayType, type of day that affects transit service.

**Remarks:**

**ASN1:**

```
SCH-DayTypeDescription ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PIXMLTimetable](#)  
[SCHCalendarEntry](#)

**No messages were identified that directly use this data element**

### A.374 Data Element SCH-EventID {SCH-113}

**Use:**

Provide a unique identifier for an event in the schedule.

**Remarks:**

**ASN1:**

SCH-EventID ::= NAME30

**The following data frames directly use this data element:**

[SCHEventIden](#)

**No messages were identified that directly use this data element**

### A.375 Data Element SCH-ExceptionID {SCH-110}

**Use:**

This element provides a unique identifier for a schedule exception to the service.

**Remarks:**

**ASN1:**

SCH-ExceptionID ::= LONG

**The following data frames directly use this data element:**

[CCPTVTripData](#)  
[SCHCalendarException](#)  
[SCHTripInfo](#)

**No messages were identified that directly use this data element**

### A.376 Data Element SCH-ExceptionName {SCH-108}

**Use:**

This element provides a name for a schedule exception to the service.

**Remarks:**

**ASN1:**

SCH-ExceptionName ::= FOOTNOTE

**The following data frames directly use this data element:**

[SCHCalendarException](#)

**No messages were identified that directly use this data element**

### A.377 Data Element SCH-NoteDesignator {SCH-13}

**Use:**

A unique alpha-numeric designator for a SCH-NoteMsg within an agency.

**Remarks:**

TCIP uses SCH-NoteID as the unique numeric identifier for schedule notes. This element provides an additional, optional identifier which may be used to refer to a schedule note.

**ASN1:**

SCH-NoteDesignator ::= FOOTNOTE

**The following data frames directly use this data element:**

[SCHNoteIden](#)

**No messages were identified that directly use this data element**

### A.378 Data Element SCH-NoteID {SCH-14}

**Use:**

A unique identifier for a note.

**Remarks:**

**ASN1:**

SCH-NoteID ::= NAME30

**The following data frames directly use this data element:**

[SCHNoteIden](#)

**No messages were identified that directly use this data element**

### A.379 Data Element SCH-NoteMsg {SCH-15}

**Use:**

Provides the text for a note in the schedule.

**Remarks:**

**ASN1:**

SCH-NoteMsg ::= FOOTNOTE

**The following data frames directly use this data element:**

[SCHNoteInfo](#)

**No messages were identified that directly use this data element**

## A.380 Data Element SCH-OperatingTimeType {SCH-16}

### Use:

A numeric value indicating the type of operating time.

### Remarks:

### ASN1:

```
SCH-OperatingTimeType ::= ENUMERATED {
    deadhead                  (1), -- Deadhead Time
    dwell                     (2), -- Dwell Time
    layover                   (3), -- Layover Time
    makeUp                    (4), -- Make Up Time
    overtime                  (5), -- Overtime
    pullIn                    (6), -- PullIn Time
    pullOut                   (7), -- PullOut Time
    spread                    (8), -- Spread Time
    travel                    (9), -- Travel Time
    turnInAllowance           (10), -- TurnInAllowance
    report                    (11), -- Report Time
    platform                  (12), -- Platform Time
    break                     (13), -- Break Time
    mealBreak                 (14), -- Meal Break Time
    inService                 (15), -- Time spent operating in revenue service
    -- 16-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[CCPTVTripData](#)  
[SCHTripInfo](#)

No messages were identified that directly use this data element

### A.381 Data Element SCH-PatternDesignator {SCH-19}

**Use:**

A unique alpha-numeric designator (identifier) of a pattern within an agency.

**Remarks:**

TCIP uses SCH-PatternID as the unique numeric identifier for schedule patterns. This element provides an additional, optional identifier which may be used to refer to a pattern.

**ASN1:**

```
SCH-PatternDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SCHPatternIden](#)

**No messages were identified that directly use this data element**

### A.382 Data Element SCH-PatternID {SCH-20}

**Use:**

A unique number assigned to a pattern within an agency.

**Remarks:**

**ASN1:**

```
SCH-PatternID ::= NAME30
```

**The following data frames directly use this data element:**

[SCHPatternIden](#)

**No messages were identified that directly use this data element**

### A.383 Data Element SCH-PatternName {SCH-21}

**Use:**

A name given to a pattern.

**Remarks:**

**ASN1:**

```
SCH-PatternName ::= NAME20
```

**The following data frames directly use this data element:**

[SCHPatternIden](#)  
[SCHPatternSegmentIden](#)

**No messages were identified that directly use this data element**

### A.384 Data Element SCH-PatternSegmentID {SCH-100}

**Use:**

Provide a unique identifier for a pattern segment within an agency .

**Remarks:**

**ASN1:**

```
SCH-PatternSegmentID ::= NAME30
```

**The following data frames directly use this data element:**

[SCHPatternSegmentIden](#)

**No messages were identified that directly use this data element**

### A.385 Data Element SCH-PayType {SCH-109}

#### Use:

The pay factor that identifies the pay rate paid for each hour of labor.

#### Remarks:

#### ASN1:

```
SCH-PayType ::= ENUMERATED {
    platform-time          (1),
    working-time           (2),
    spread                 (3),
    spread-bonus           (4),
    overtime               (5),
    overtime-bonus         (6),
    other-meal-break       (7),
    other-paid-break        (8),
    paid-travel            (9),
    sign-on-time           (10),
    sign-off-time          (11),
    early-shift-bonus      (12),
    evening-shift-bonus    (13),
    night-shift-bonus      (14),
    holiday                (15),
    holiday-bonus          (16),
    railBonus              (17), -- a higher rate of pay for operating a rail vehicle
    longRailBonus          (18)  -- a higher rate of pay for operating a long rail vehicle
    -- 19-127 reserved
    -- 128-255 local use
}
```

**The following data frames directly use this data element:**

[SCHOperatorPay](#)

**No messages were identified that directly use this data element**

### A.386 Data Element SCH-RosterDesignator {SCH-26}

**Use:**

A unique alpha-numeric designator (identifier) of a roster.

**Remarks:**

TCIP uses SCHRosterIden to uniquely identify rosters. This element serves as an additional identifier which may be useful for use by people in referring to a roster.

**ASN1:**

```
SCH-RosterDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SCHRosterIden](#)

**No messages were identified that directly use this data element**

### A.387 Data Element SCH-RosterID {SCH-27}

**Use:**

A unique number assigned to a roster.

**Remarks:**

**ASN1:**

```
SCH-RosterID ::= IDENTL
```

**The following data frames directly use this data element:**

[SCHRosterIden](#)

**No messages were identified that directly use this data element**

### A.388 Data Element SCH-RouteDesignator {SCH-28}

**Use:**

A unique alpha-numeric designator (identifier) of a route.

**Remarks:**

TCIP uses SCH-RouteID as the unique numeric identifier for transit routes. This element provides an additional, optional identifier (usually publicly known) which may be used to refer to a route (e.g. 'Red', 'Blue', 'M13').

**ASN1:**

SCH-RouteDesignator ::= FOOTNOTE

**The following data frames directly use this data element:**

[PIGTFSFareRules](#)  
[PIGTFSRoutes](#)  
[PIGTFSTrips](#)  
[SCHRoutelen](#)

**The following messages directly use this data element:**

[CcLR](#)  
[SchRouteSchedule](#)

### A.389 Data Element SCH-RouteDirectoryName {SCH-30}

**Use:**

A name that describes the direction of a route.

**Remarks:**

**ASN1:**

SCH-RouteDirectoryName ::= NAME30

**The following data frames directly use this data element:**

[CCDestinationSignMessage](#)  
[CCDetourRecord](#)  
[CCPTVLocation](#)  
[FCAllowedTransferRecord](#)  
[IMPTVehicleInvolved](#)  
[PIGTFSTrips](#)  
[PINearrestStop](#)

[PINearestStopRequest](#)  
[PIPTVDelayed](#)  
[PIRouteInfo](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIServiceBulletin](#)  
[PIServiceDelayed](#)  
[PIServiceStatusRequest](#)  
[PIStopPatternRouteEntry](#)  
[PIXMLTimetable](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHPatternInfo](#)  
[SCHServiceAtStop](#)  
[SCHTripDetailInfo](#)  
[SCHTripInfo](#)  
[SCHValidationErrorResponse](#)

**The following messages directly use this data element:**

[CcLR](#)  
[CcPTVTrips](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)

### A.390 Data Element SCH-RouteID {SCH-31}

**Use:**

A unique number assigned to a route within a transit agency.

**Remarks:**

**ASN1:**

SCH-RouteID ::= NAME30

**The following data frames directly use this data element:**

[PIGTFSFareAttributes](#)  
[SCHRoutelen](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.391 Data Element SCH-RouteName {SCH-32}

**Use:**

A name given to a route.

**Remarks:**

**ASN1:**

SCH-RouteName ::= NAME30

**The following data frames directly use this data element:**

[SCHRouteIden](#)

**The following messages directly use this data element:**

[CcLR](#)  
[SchRouteSchedule](#)

### A.392 Data Element SCH-RunDesignator {SCH-33}

**Use:**

A unique alpha-numeric designator (identifier) of a run within an agency.

**Remarks:**

TCIP uses SCH-RunID as the unique numeric identifier for runs (operator assignments). This element provides an additional, optional identifier which may be used to refer to a run.

**ASN1:**

SCH-RunDesignator ::= FOOTNOTE

**The following data frames directly use this data element:**

[SCHRunIden](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.393 Data Element SCH-RunID {SCH-34}

#### Use:

A unique number assigned to a piece of work for an operator on a given day type or within a particular schedule.

#### Remarks:

#### ASN1:

SCH-RunID ::= NAME30

**The following data frames directly use this data element:**

[SCHRunIden](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.394 Data Element SCH-RunType {SCH-39}

#### Use:

Type of operator assignment.

#### Remarks:

#### ASN1:

```
SCH-RunType ::= ENUMERATED {
    amStraightht          (1), -- AM Straight,
    midStraight           (2), -- Midday Straight,
    pmStraight            (3), -- PM Straight,
    straight              (4), -- Straight,
    cleanup               (5), -- Cleanup,
    owl                  (6), -- Owl,
    regular              (7), -- Regular,
    relief                (8), -- Relief,
    split                 (9), -- Split,
    threePiece            (10), -- Three Piece (including swing),
    tripper               (11), -- Tripper,
    twoPiece              (12), -- Two Piece (including swing),
    amSplit               (13), -- AM Split
    midSplit              (14), -- midday Split
    pmSplit               (15), -- PM Split
    amSplit10             (16), -- AM Split 10 hr
    midSplit10            (17), -- midday Split 10 hr
```

```
pmSplit10          (18), -- PM Split 10 hr
amStraight10       (19), -- AM Straight 10 hr
midStraight10      (20), -- midday Straight 10 hr
pmStraight10        (21), -- PM Straight 10 hr
amPartTime          (22), -- AM Part Time
midPartTime         (23), -- midday Part Time
pmPartTime          (24), -- PM Part Time
unknown             (25),
-- 26-127 reserved
-- 128-255 local use
... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[SCHOperatorAssignment](#)

**No messages were identified that directly use this data element**

### A.395 Data Element SCH-RunningTime {SCH-38}

**Use:**

The scheduled or actual time for a PTV to move between two points.

**Remarks:**

**ASN1:**

SCH-RunningTime ::= DURATION

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.396 Data Element SCH-RunningTimePeriodName {SCH-37}

#### Use:

The name given to a running time period.

#### Remarks:

#### ASN1:

```
SCH-RunningTimePeriodName ::= NAME30
```

**The following data frames directly use this data element:**

[SCHRunningTimeEntry](#)

**No messages were identified that directly use this data element**

### A.397 Data Element SCH-ServiceType {SCH-41}

#### Use:

Type of transit service provided.

#### Remarks:

#### ASN1:

```
SCH-ServiceType ::= ENUMERATED {
  regular                  (1), -- Regular,
  express                  (2), -- Express,
  circular                 (3), -- Circular,
  radial                   (4), -- Radial,
  feeder                   (5), -- Feeder,
  jitney                   (6), -- Jitney,
  limited                  (7), -- Limited,
  nonRevenue               (8), -- Non-revenue,
  unknown                  (9), -- Unknown,
  charter                  (10), -- Charter Service,
  school                   (11), -- School Service,
  special                  (12), -- Special Service,
  operatorTraining          (13), -- Operator Training,
  maintenance              (14), -- Maintenance Service,
  noService                (15), -- No Service,
  standBy                 (16), -- Stand-by,
  extra                    (17), -- Extra,
-- 18-127 reserved
-- 128-255 local use
```

```
... -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data element:**

[CCLogOnOperator](#)  
[CCPTVTripData](#)  
[SCHRunningTimeEntry](#)  
[SCHTripInfo](#)

**No messages were identified that directly use this data element**

### A.398 Data Element SCH-Time {SCH-65}

**Use:**

Define time of day as used in a transit schedule.

**Remarks:**

Negative time implies a time prior to midnight and hence part of the previous day. Time beyond 24 hours indicates part of the following day. Units are in seconds past midnight.

**ASN1:**

SCH-Time ::= LONG

**The following data frames directly use this data element:**

[CCPTVTripData](#)  
[CCPollResponseContents](#)  
[CCTimepointHistory](#)  
[SCHAffectedStop](#)  
[SCHBlockScheduleEntry](#)  
[SCHConsistChangeEvent](#)  
[SCHEvent](#)  
[SCHRanScheduleEntry](#)  
[SCHRunningTimeEntry](#)  
[SCHServiceAtStop](#)  
[SCHTimeTableEntry](#)  
[SCHTimeTableTripTP](#)  
[SCHTripInfo](#)  
[SCHVehicleAssignment](#)  
[TSPScheduleEntry](#)  
[TSPStrategyEntry](#)

**The following messages directly use this data element:**

[CcPTVAdherence](#)  
[CcPTVTrips](#)

### A.399 Data Element SCH-TimePtNameShort {SCH-55}

#### Use:

A short name associated with a time point. This 4-character name supports existing legacy systems that rely on 4 characters to identify their time points.

#### Remarks:

#### ASN1:

```
SCH-TimePtNameShort ::= NAME4
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.400 Data Element SCH-TimepointDesignator {SCH-50}

#### Use:

A unique alpha-numeric designator (identifier) of a time point within an agency.

#### Remarks:

TCIP uses SCH-TimepointID as the unique numeric identifier for timepoints. This element provides an additional, optional identifier which may be used to refer to a timepoint.

#### ASN1:

```
SCH-TimepointDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SCHTimepointIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.401 Data Element SCH-TimepointID {SCH-51}

### Use:

A unique number assigned to a time point within an agency.

### Remarks:

### ASN1:

```
SCH-TimepointID ::= NAME30
```

**The following data frames directly use this data element:**

[SCHTimepointIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.402 Data Element SCH-TimepointIntervalDes {SCH-52}

### Use:

A unique alpha-numeric designator (identifier) of a time point interval.

### Remarks:

### ASN1:

```
SCH-TimepointIntervalDes ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SCHTimepointInterval](#)

**No messages were identified that directly use this data element**

#### A.403 Data Element SCH-TimepointIntervalID {SCH-53}

**Use:**

A unique number assigned to a time point interval.

**Remarks:**

**ASN1:**

```
SCH-TimepointIntervalID ::= IDENL
```

**The following data frames directly use this data element:**

[SCHTimepointInterval](#)

**No messages were identified that directly use this data element**

#### A.404 Data Element SCH-TimepointName {SCH-54}

**Use:**

The name of a time point.

**Remarks:**

**ASN1:**

```
SCH-TimepointName ::= NAME40
```

**The following data frames directly use this data element:**

[SCHTimeTableEntry](#)  
[SCHTimepointIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.405 Data Element SCH-TimetableVersionID {SCH-56}

### Use:

A unique number assigned to a time table version.

### Remarks:

### ASN1:

```
SCH-TimetableVersionID ::= IDENL
```

The following data frames directly use this data element:

[CCPTVTripData](#)  
[CPTLoadFileHeader](#)  
[CPTPushHeader](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHRRouteVersion](#)  
[SCHServiceAtStop](#)  
[SCHTimetableVersion](#)  
[SCHTripDetailInfo](#)  
[TSPStatus](#)

The following messages directly use this data element:

[SchPatternFile](#)  
[SchPatternList](#)  
[SchPatternListSub](#)  
[SchPushPatterns](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleSub](#)  
[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SchTimepointList](#)  
[SchTimepointListSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## A.406 Data Element SCH-TimetableVersionName {SCH-57}

### Use:

A name given to a time table version, e.g., summer.

### Remarks:

### ASN1:

```
SCH-TimetableVersionName ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SCHTimetableVersion](#)

No messages were identified that directly use this data element

## A.407 Data Element SCH-TransferID {SCH-102}

### Use:

Provide a unique identifier for a scheduled transfer opportunity.

### Remarks:

### ASN1:

```
SCH-TransferID ::= NAME30
```

**The following data frames directly use this data element:**

[FCAccruedTransferRecord](#)  
[SCHTransferInfo](#)  
[SCHValidationRecord](#)

**The following messages directly use this data element:**

[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleFile](#)

## A.408 Data Element SCH-TripDesignator {SCH-58}

### Use:

A unique alpha-numeric designator (identifier) of a trip within an agency.

### Remarks:

TCIP uses SCH-TripID as the unique numeric identifier for scheduled trips. This element provides an additional, optional identifier which may be used to refer to a trip.

### ASN1:

```
SCH-TripDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PIGTFSFrequencies](#)  
[PIGTFSStopTimes](#)  
[PIGTFSTrips](#)  
[SCHTripIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.409 Data Element SCH-TripID {SCH-59}

### Use:

A unique number assigned to a trip within an agency.

### Remarks:

### ASN1:

```
SCH-TripID ::= NAME30
```

**The following data frames directly use this data element:**

[SCHTripIden](#)

**The following messages directly use this data element:**

[CcLR](#)

## A.410 Data Element SCH-TripTimePtAttribute {SCH-61}

### Use:

An attribute of a time point in the context of a trip.

### Remarks:

### ASN1:

```
SCH-TripTimePtAttribute ::= ENUMERATED {
  layover                  (1), -- Layover
  relief                   (2), -- Relief
  control                  (3), -- Control
  transfer                 (4), -- Transfer
  recovery                 (5), -- Recovery
  pullIn                  (6), -- Pull in
  pullOut                 (7), -- Pull out
  maxLoadPt               (8), -- Maximum load point
  arrive                  (9), -- Arrive
  depart                  (10), -- Depart
  schedAdhOn              (11), -- Schedule Adherence On
  schedAdhOff              (12), -- Schedule Adherence Off
  rtAdhOn                 (13), -- Route Adherence On
  rtAdhOff                (14), -- Route Adherence Off
  -- 15-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.411 Data Element SCH-TripType {SCH-63}

### Use:

A classification of a trip, whether revenue or non-revenue.

### Remarks:

### ASN1:

```
SCH-TripType ::= ENUMERATED {
    revenue                  (1), -- Revenue
    pullIn                   (2), -- Pull In (from vehicle base)
    pullOut                  (3), -- Pull Out (to vehicle base)
    deadhead                 (4), -- Deadhead
    extra                    (5), -- Extra
    standby                  (6), -- Standby
    garTransfer               (7), -- Garage transfer
    roadCall                  (8), -- Road call
    roadCallReturn             (9), -- Road call return
    roadTest                  (10), -- Road test
    invalidMovement            (11), -- Invalid movement
    -- 14-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[CCPTVTripData](#)  
[SCHTripInfo](#)

No messages were identified that directly use this data element

## A.412 Data Element SCH-TripTypeDescription {SCH-64}

### Use:

A description of the trip type.

### Remarks:

### ASN1:

```
SCH-TripTypeDescription ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[PIGTFSTrips](#)  
[SCHTripInfo](#)

**No messages were identified that directly use this data element**

## A.413 Data Element SCH-ValidationErrorCode {SCH-103}

### Use:

Define the type of schedule validation failure that occurred.

### Remarks:

The "inc" in the enumerated values indicates 'inconsistent'. 'Geo' indicates geographic definition of a pattern, or pattern segment, 'runs' refers to operator assignments, and 'blocks' refers to vehicle assignments.

### ASN1:

```
SCH-ValidationErrorCode ::= ENUMERATED {
    timepointPatternInc          (1),
    timepointPatternSegmentInc   (2),
    timepointRunningTimeInc     (3),
    timepointMissing              (4),
    stoppointPatternInc          (5),
    stoppointPatternSegmentInc  (6),
    stoppointMissing              (7),
    transfersTripsInc            (8),
    transfersStoppointsInc      (9),
    transfersPatternInc          (10),
    transfersPatternSegmentInc (11),
    transfersNotesMissing        (12),
    patternsNotesMissing         (13),
    tripsNotesMissing             (14),
    timpointsNotesMissing        (15),
    stoppointsNotesMissing       (16),
    runsTripsInc                 (17),
```

```
blocksTripsInc          (18),
patternsTripsInc        (19),
patternSegmentsTripsInc (20),
patternGeoInc           (21),
patternSegmentGeoInc   (22),
stoppointInactive       (23),
timepointInactive       (24),
patternInactive         (25),
patternSegmentInactive (26),
patternVersionUnavailable (27),
routeVersionUnavailable (28),
timepointVersionUnavailable (29),
stoppointVersionUnavailable (30),
transfersUnavailable   (40),
runsUnavailable         (41),
blocksUnavailable       (42)
-- 43-101 reserved
-- 102-200 local use
}
```

**The following data frames directly use this data element:**

[SCHValidationError](#)

**No messages were identified that directly use this data element**

## A.414 Data Element SCP-LoggedEventType {TSP-108}

**Use:**

Identify the type of a signal priority related event in an event log.

**Remarks:**

**ASN1:**

```
SCP-LoggedEventType ::= ENUMERATED {
  priority-request          (1), -- priority request message to PRS
  priority-request-ack       (2), -- to PRG
  priority-update            (3), -- priority update message to PRS
  priority-update-ack        (4), -- to PRG
  priority-control           (5), -- priority status control message to PRS
  priority-control-ack       (6), -- to PRG
  priority-buffer             (7), -- priority status buffer message to PRS
  priority-buffer-response   (8), -- to PRG
  priority-cancel             (9), -- priority request cancellation message to PRS
  priority-cancel-ack         (10), -- to PRG
  priority-clear              (11), -- priority request clear message to PRS
  priority-clear-ack          (12), -- to PRG
  priority-request-grant     (21),
  priority-request-deny       (22),
  priority-request-downgrade (23),
```

```
priority-request-preempted      (24),
priority-request-cleared        (25), -- from table
green-phase-begin               (26),
green-phase-end                 (27),
vehicle-arrival-at-queue       (51),
vehicle-arrival-at-stopbar     (52),
vehicle-clear-intersection     (53),
vehicle-delay-detected        (54),
vehicle-diversion-detected    (55)
-- 56-100 reserved
-- 101-201 local use
}
```

**The following data frames directly use this data element:**

[TSPEventLogEntry](#)

**No messages were identified that directly use this data element**

## A.415 Data Element SCP-NTCIP-1211-Scenario {TSP-101}

**Use:**

Define which of four NTCIP 1211 defined scenarios is to be used at a given intersection.

**Remarks:**

**ASN1:**

```
SCP-NTCIP-1211-Scenario ::= ENUMERATED {
  scenario1                  (1), -- per NTCIP 1211
  scenario2                  (2), -- per NTCIP 1211
  scenario3                  (3), -- per NTCIP 1211
  scenario4                  (4), -- per NTCIP 1211
  scenario5                  (5)
-- 6-100 reserved
-- 101-120 local use
}
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.416 Data Element SCP-PriorityRequestID {TSP-104}

### Use:

Provide a unique identifier (from the PRG's perspective) for a signal priority request.

### Remarks:

This data element corresponds exactly to the "Priority Request ID" defined in NTCIP 1211.

### ASN1:

```
SCP-PriorityRequestID ::= UBYTE
```

### The following data frames directly use this data element:

[TSPEventLogEntry](#)

### The following messages directly use this data element:

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## A.417 Data Element SCP-PriorityStrategyNumber {TSP-100}

### Use:

Provide a locally defined 1-byte priority strategy variable, consistent with the strategy number definition of NTCIP 1211.

### Remarks:

### ASN1:

```
SCP-PriorityStrategyNumber ::= UBYTE
```

### The following data frames directly use this data element:

[TSPEventLogEntry](#)

[TSPStrategyEntry](#)  
[TSPtmsIntersectionApproach](#)

**The following messages directly use this data element:**

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

#### A.418 Data Element SCP-StatusCodeForPRG {TSP-111}

**Use:**

Provide the status code for a priority request from the PRS to the PRG.

**Remarks:**

This data element is intended to exactly match the data element "PriorityRequestStatusCodeForPRG" defined in NTCIP 1211.

**ASN1:**

SCP-StatusCodeForPRG ::= UBYTE

**The following data frames directly use this data element:**

[TSPEventLogEntry](#)

**The following messages directly use this data element:**

[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)

### A.419 Data Element SCP-StatusForPRG {TSP-110}

**Use:**

Provide the status of a table entry for a priority request from the PRS to the PRG.

**Remarks:**

This data element is intended to exactly match the data element "PriorityRequestStatusForPRG" defined in NTCIP 1211.

**ASN1:**

SCP-StatusForPRG ::= UBYTE

**No data frames were identified that directly use this data element**

**The following messages directly use this data element:**

[ScpStatusBuffer](#)

[ScpStatusBufferResponse](#)

### A.420 Data Element SCP-TimeInterval {TSP-105}

**Use:**

Define a time interval in seconds into the future at which a signal priority event (e.g. arrival at the stop bar, or clearance of the intersection) is predicted to occur.

**Remarks:**

This data element corresponds exactly to either of the elements "PriorityRequestTimeOfServiceDesired" or "PriorityRequestTimeOfEstimatedDeparture". Defined in NTCIP 1211.

**ASN1:**

SCP-TimeInterval ::= USHORT

**The following data frames directly use this data element:**

[TSPEventLogEntry](#)

[TSPGrantRecord](#)

**The following messages directly use this data element:**

[ScpPriorityRequest](#)

[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)

## A.421 Data Element SCP-VehicleClassLevel {TSP-119}

### Use:

Identify a vehicle level within a class to a Priority Request Server as part of a signal priority request.

### Remarks:

This data element corresponds exactly to "PriorityRequestVehicleClassLevel" as defined in NTCIP 1211. The allowed range of values is 1..10.

### ASN1:

SCP-VehicleClassLevel ::= UBYTE

The following data frames directly use this data element:

[TSPStrategyEntry](#)

The following messages directly use this data element:

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## A.422 Data Element SCP-VehicleClassType {TSP-106}

### Use:

Identify a vehicle class to a Priority Request Server as part of a signal priority request.

### Remarks:

This data element corresponds exactly to "PriorityRequestVehicleClassType" as defined in NTCIP 1211. The allowed range of values is 1..10.

### ASN1:

SCP-VehicleClassType ::= UBYTE

**The following data frames directly use this data element:**

[TSPEventLogEntry](#)

[TSPStrategyEntry](#)

**The following messages directly use this data element:**

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

### A.423 Data Element SP-AngularDirection {SP-3}

**Use:**

The direction from a point based on the angle measured from a north pointing horizontal plane.

**Remarks:**

The valid range is 0 to 360 degrees. Units are in 0.01 degrees. This data element is equivalent to "c deg" defined in the LRMS data frame angle.

**ASN1:**

SP-AngularDirection ::= USHORT

**The following data frames directly use this data element:**

[CCPollResponseContents](#)

[OBStoppointRecord](#)

**No messages were identified that directly use this data element**

### A.424 Data Element SP-BuildingIdentifier {SP-113}

**Use:**

Provide a freeform identifier for a building.

**Remarks:**

**ASN1:**

SP-BuildingIdentifier ::= NAME30

**The following data frames directly use this data element:**

[SPInteriorLocation](#)

**No messages were identified that directly use this data element**

## A.425 Data Element SP-FeatureDesignator {SP-115}

### Use:

Allow an agency to assign an alphanumeric identifier to a GIS feature.

### Remarks:

#### ASN1:

```
SP-FeatureDesignator ::= FOOTNOTE
```

**The following data frames directly use this data element:**

[SPFeatureIden](#)

**No messages were identified that directly use this data element**

## A.426 Data Element SP-FeatureID {SP-107}

### Use:

Identify an instance of a feature (e.g. in a database or on a map).

### Remarks:

#### ASN1:

```
SP-FeatureID ::= NAME30
```

**The following data frames directly use this data element:**

[SPFeatureIden](#)

**No messages were identified that directly use this data element**

#### A.427 Data Element SP-FeatureLabel {SP-104}

**Use:**

A label used to identify a particular instance of a feature.

**Remarks:**

**ASN1:**

```
SP-FeatureLabel ::= NAME30
```

**The following data frames directly use this data element:**

[SPFeature](#)

**No messages were identified that directly use this data element**

#### A.428 Data Element SP-FeatureName {SP-105}

**Use:**

A label used to identify a particular instance of a feature.

**Remarks:**

**ASN1:**

```
SP-FeatureName ::= NAME30
```

**The following data frames directly use this data element:**

[SPFeatureIden](#)  
[SPInteriorLocation](#)

**No messages were identified that directly use this data element**

## A.429 Data Element SP-GeoTraceResponseType {SP-100}

### Use:

Define the desired type of response for a route geotrace query.

### Remarks:

### ASN1:

```
SP-GeoTraceResponseType ::= ENUMERATED {
  links                      (1),
  tracepoints                (2),
  timepoints                 (3),
  stoppoints                 (4),
  driving-directions         (5),
  walking-directions         (6),
  -- 7-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

## A.430 Data Element SP-IndoorGridIdentifier {SP-112}

### Use:

Provide a locally defined identifier for a grid square in a building. Identifiers may be locally defined names, or a locally defined reference system (e.g. "Alpha", "Grid R-17", "S-42", "14x29").

### Remarks:

### ASN1:

```
SP-IndoorGridIdentifier ::= NAME30
```

**The following data frames directly use this data element:**

[SPInteriorLocation](#)

No messages were identified that directly use this data element

## A.431 Data Element SP-InteriorFeatureType {SP-111}

### Use:

Specify the type of an indoor feature.

### Remarks:

### ASN1:

```
SP-InteriorFeatureType ::= ENUMERATED {
    stairway                  (1),
    escalator                 (2),
    ramp                      (3),
    elevator                  (4),
    restaurant                (5),
    concession                (6),
    vending-machine           (7),
    ticket-vending-machine   (8),
    ticket-window              (9),
    info-booth                (10),
    kiosk                     (11),
    door                      (12),
    window                    (13),
    platform                  (14),
    customer-info-system     (15),
    fountain                  (16),
    stoppoint                 (17),
    entrance                  (18),
    emergency-exit            (19),
    hallway                   (20),
    concourse                 (21),
    office                    (22),
    waiting-room               (23),
    art-sculpture              (24),
    art-mosaic                 (25),
    art-other                  (26),
    pay-phones                 (27),
    -- 28-128 reserved
    -- 129-255 local use
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

### [SPInteriorFeature](#)

No messages were identified that directly use this data element

## A.432 Data Element SP-LocationConversionType {SP-43}

### Use:

Specify the type to which a geographic point should be converted.

### Remarks:

### ASN1:

```
SP-LocationConversionType ::= ENUMERATED {
    addressPoint          (1),
    geoPoint              (2),
    geoLabelPoint         (3),
    geoOffsetPoint        (4),
    intersectionPoint     (5),
    intersectionOffsetPoint (6),
    landmarkPoint         (7),
    milepostPoint         (8),
    nodePoint              (9),
    nodeOffsetPoint        (10),
    statePlanePoint        (11),
    roadLabelPoint         (12),
    geoDynamicPoint        (13)
    -- 14-114 reserved
    -- 115-125 local use
}
```

The following data frames directly use this data element:

[SPLocationConversionEntry](#)  
[SPLocationConversionRequest](#)

No messages were identified that directly use this data element

### A.433 Data Element SP-NoDimCoord {SP-108}

#### Use:

provide a dimensionless coordinate to be used in specifying scalable geometric constructs.

#### Remarks:

This data element is used to specify points in a dimensionless space. This allows symbols to be defined which can be scaled to various sizes so as to remain visible when zoomed out, but scaled down to a reasonable size when zoomed in. Conceptually this coordinate can be thought of as having dimensions in pixels, or a multiple of pixels.

#### ASN1:

SP-NoDimCoord ::= LONG

#### The following data frames directly use this data element:

[SPNoDimPoint](#)

No messages were identified that directly use this data element

### A.434 Data Element SP-NoDimDist {SP-109}

#### Use:

Provide dimensionless distance to be used in specifying scalable geometric constructs.

#### Remarks:

This data element is used to specify distances in a dimensionless space. This allows symbols to be defined which can be scaled to various sizes so as to remain visible when zoomed out, but scaled down to a reasonable size when zoomed in. Conceptually this distance can be thought of as having dimensions in pixels, or a multiple of pixels.

#### ASN1:

SP-NoDimDist ::= LONG

#### The following data frames directly use this data element:

[SPNoDimArc](#)  
[SPNoDimCircle](#)

No messages were identified that directly use this data element

### A.435 Data Element SP-NodeID {SP-24}

**Use:**

The node defines a link terminus or the topological junction between two or more links.

**Remarks:**

**ASN1:**

SP-NodeID ::= UINT

**No data frames were identified that directly use this data element**

**No messages were identified that directly use this data element**

### A.436 Data Element SP-OneWay {SP-106}

**Use:**

Define whether a street segment is one-way & if so in which direction.

**Remarks:**

**ASN1:**

```
SP-OneWay ::= ENUMERATED {
  one-to-two          (1), -- from node 1 to node 2
  two-to-one          (2), -- from node 2 to node 1
  bidirectional       (3), -- not really one-way at all
  clockwise           (4), -- useful for traffic circles
  counterclockwise    (5) -- useful for traffic circles
  -- 6-100 reserved
  -- 101-200 local use
}
```

**The following data frames directly use this data element:**

[SPStreetSeg](#)

**No messages were identified that directly use this data element**

### A.437 Data Element SP-QualityLevel {SP-103}

#### Use:

Provide a qualitative location data quality indicator.

#### Remarks:

High, medium and low are locally defined/interpreted

#### ASN1:

```
SP-QualityLevel ::= ENUMERATED {
    high                  (1), -- high quality data
    medium                (2), -- medium quality data
    low                  (3), -- low quality data
    invalid              (4), -- data is not available or usable
    -- 5-127 reserved
    -- 128-255 local use
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data element:**

[SPDataQuality](#)

**The following messages directly use this data element:**

[CcLR](#)

### A.438 Data Element SP-RoomIdentifier {SP-114}

#### Use:

Provide a freeform identifier for a room in a building.

#### Remarks:

#### ASN1:

```
SP-RoomIdentifier ::= NAME30
```

**The following data frames directly use this data element:**

[SPInteriorLocation](#)

**No messages were identified that directly use this data element**

### **A.439 Data Element SP-SymbolLabel {SP-110}**

**Use:**

Provide a string label for a symbol type.

**Remarks:**

Note that if this is used to the label will accompany all symbols denoting a particular feature type. It does not uniquely label an instance of a feature type.

**ASN1:**

SP-SymbolLabel ::= NAME20

**The following data frames directly use this data element:**

[SPFeatureSymbol](#)

**No messages were identified that directly use this data element**

### **A.440 Data Element TSP-ApproachID {TSP-116}**

**Use:**

A unique identifier for an approach to a specified intersection.

**Remarks:**

The value zero is used to signify all approaches.

**ASN1:**

TSP-ApproachID ::= IDENL

**The following data frames directly use this data element:**

[TSPAllowedIntersection](#)  
[TSPTmsIntersectionApproach](#)

**No messages were identified that directly use this data element**

### A.441 Data Element TSP-BoundaryID {TSP-115}

**Use:**

A unique numeric identifier for a geographical boundary related to an intersection for signal priority usage.

**Remarks:**

**ASN1:**

TSP-BoundaryID ::= IDENL

**The following data frames directly use this data element:**

[TSPAllowedIntersection](#)  
[TSPBoundaryEntry](#)  
[TSPIntersectionEntry](#)  
[TSPStrategyEntry](#)  
[TSPTmsIntersectionParam](#)

**The following messages directly use this data element:**

[TspBusinessRules](#)

### A.442 Data Element TSP-DropAddr {TSP-114}

**Use:**

A layer-2 address for an intersection on a multidrop communications path

**Remarks:**

**ASN1:**

TSP-DropAddr ::= UBYTE

**The following data frames directly use this data element:**

[TSPIntersectionEntry](#)  
[TSPTmsIntersectionParam](#)

**The following messages directly use this data element:**

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

#### A.443 Data Element TSP-GrantType {TSP-120}

##### Use:

Define the type of signal priority granted.

##### Remarks:

##### ASN1:

```
TSP-GrantType ::= ENUMERATED {
  early-green          (1),
  green-extension      (2),
  phase-rotation       (3),
  -- 4-127 reserved
  -- 128-255 local use
  ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data element:

[TSPGrantRecord](#)

No messages were identified that directly use this data element

## A.444 Data Element TSP-IntersectionPath {TSP-109}

### Use:

Used to identify the path that a transit vehicle wants to follow through an intersection.

### Remarks:

In NTCIP Scenario #3, the TMC requires this information from the transit control center to generate priority requests on behalf of the transit fleet. Value 0 is reserved. Values 1-8 are "normal" and diagonal moves. Values 9-100 are reserved. Values 101-200 are for local use. Values 201-255 are reserved.

### ASN1:

```
TSP-IntersectionPath ::= ENUMERATED {
    straight-thru          (1), -- approximately 0 degree turn
    right-turn              (2), -- approximately +90 degree turn
    left-turn               (3), -- approximately -90 degree turn
    u-turn                  (4), -- approximately 180 degree turn
    diag-right-turn         (5), -- approximately +45 degree turn
    diag-left-turn          (6), -- approximately -45 degree turn
    sharp-right-turn        (7), -- approximately +135 degree turn
    sharp-left-turn         (8), -- approximately -135 degree turn
    -- 9-50 reserved
    -- 60-100 local use
}
```

The following data frames directly use this data element:

[TSPStrategyEntry](#)  
[TSPTmsIntersectionApproach](#)

No messages were identified that directly use this data element

## A.445 Data Element TSP-ModemPhoneNum {TSP-112}

### Use:

The telephone number of a modem to access an intersection controller.

### Remarks:

### ASN1:

TSP-ModemPhoneNum ::= TELEPHONE

**The following data frames directly use this data element:**

[TSPIntersectionEntry](#)  
[TSPTmsIntersectionParam](#)

**The following messages directly use this data element:**

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## A.446 Data Element TSP-TMS-IntersectionID {TSP-113}

### Use:

A Unique numeric identifier for an intersection.

### Remarks:

### ASN1:

TSP-TMS-IntersectionID ::= NAME30

**The following data frames directly use this data element:**

[CPTIntersectionIden](#)

**The following messages directly use this data element:**

[ScpPriorityCancel](#)  
[ScpPriorityCancelAck](#)  
[ScpPriorityClear](#)  
[ScpPriorityClearAck](#)  
[ScpPriorityRequest](#)  
[ScpPriorityRequestAck](#)  
[ScpPriorityUpdate](#)  
[ScpPriorityUpdateAck](#)  
[ScpStatusBuffer](#)  
[ScpStatusBufferResponse](#)  
[ScpStatusControl](#)  
[ScpStatusControlAck](#)

## Annex B - TCIP Data Frames

### B.1 Data Frame CCActivateRouteAdherence {CC 1090}

#### Use:

A frame that indicates the requirements for activating and deactivating an exception to route adherence reporting.

#### Remarks:

The criteria-records field provides a series of distances off route with corresponding reporting rates. This allows agencies to specify escalating (or de-escalating) reporting rates based on distance off route. A single record can be used to provide a single off-route distance and reporting rate. The return fields provide criteria to be used to determine that the PTV is back on route. The return to route criteria can be that the PTV passed through a sequence of on route time or stoppoints, or that the PTV is within a specified distance of its specified route.

#### ASN1:

```
CCActivateRouteAdherence ::= SEQUENCE {
    criteria-records      SEQUENCE (SIZE(1..5)) OF CCRouteAdherenceEntry,
    return-timepoint-count  CPT-GenericCounter OPTIONAL,
    return-path-distance     LRMS.Distance OPTIONAL,
    return-stoppoint-count   CPT-GenericCounter OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcPTVAdherenceSub](#)  
[CcPTVAlarmLimits](#)

## B.2 Data Frame CCActivateScheduleAdherence {CC 1091}

### Use:

A frame that indicates the requirements for activating an exception to schedule adherence reporting. It indicates a relaxing or tightening of the schedule adherence parameters. For example, tolerance-early and tolerance-late are used to define the range of early (-) and late (+) constraints on triggering a schedule adherence violation. Return-tolerance-early and late indicate the amount of adherence required to trigger adherence once a violation has already been triggered.

### Remarks:

#### ASN1:

```
CCActivateScheduleAdherence ::= SEQUENCE {
    tolerance-early           CC-ScheduleToleranceEarly,
    return-tolerance-early     CC-ReturnToleranceEarly OPTIONAL,
    tolerance-late             CC-ScheduleToleranceLate,
    return-tolerance-late      CC-ReturnToleranceLate OPTIONAL,
    report-frequency          CC-ExceptionFrequencyReport OPTIONAL,
    response                  CC-MsgResponse -- indicates whether initiation triggers a
status/acknowledge response
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcPTVAdherenceSub](#)  
[CcPTVAlarmLimits](#)

## B.3 Data Frame CCAlarm {CC 1002}

### Use:

Convey information about an alarm condition that has occurred or recovered.

### Remarks:

The recovered field indicates whether the alarm most recently transitioned from active to inactive (TRUE), or inactive to active (FALSE). The time field indicates the time at which the most recent transition occurred. The loc-xxx fields will normally be absent when conveyed in a CcPollResponse contents frame. If any or all of the loc-xxx fields are present, they provide information about the location, direction, and speed at the time the alarm occurred or recovered.

#### ASN1:

```
CCAlarm ::= SEQUENCE {
    parameter-id            OBParameterID,
    recovered                CPT-Boolean,
    value                    OBParameterValue,
```

```
loc-lat           LRMS.Latitude OPTIONAL,  
loc-lon           LRMS.Longitude OPTIONAL,  
loc-dir           LRMS.Angle OPTIONAL,  
loc-spd           OB-J1587-VelocityVectorSpeed OPTIONAL,  
time              CPT-DateTime,  
other-alarms     SEQUENCE (SIZE(1..5)) OF CC-AlarmCode OPTIONAL,  
...   -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data frame:**

[CCPTVAalarm](#)  
[CCPollResponseContents](#)

**The following messages directly use this data frame:**

[CcPTVehicleAlarm](#)

## B.4 Data Frame CCAnnouncementIden {CC 1039}

**Use:**

Uniquely identify an announcement whether in a single, or multi agency environment.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CCAnnouncementIden ::= SEQUENCE {  
    id                  CC-AnnouncementMsgID,  
    ag                  CPT-AgencyID OPTIONAL,  
    name                CC-AnnouncementName OPTIONAL,  
    nameLangs          CPTAdditionalLanguageContents OPTIONAL,  
    desig               CC-AnnouncementDesignator OPTIONAL,  
    desigLangs         CPTAdditionalLanguageContents OPTIONAL,  
    agdesig            CPT-AgencyDesignator OPTIONAL,  
    agdesigLangs       CPTAdditionalLanguageContents OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[CCCannedAnnouncementRecord](#)  
[PIAnnouncement](#)  
[PIEventAnnouncement](#)

**The following messages directly use this data frame:**

[CcTriggerCannedAnnouncement](#)

## B.5 Data Frame CCBLOCKWorkRecord {CC 1011}

### Use:

Describe events related to the work done by a PTV.

### Remarks:

1. The begin-time, and end-time fields specify the interval of time described by this frame, they may or may not correspond to pullout or pullin times.
2. The timepoints field, if present, describes timepoints encountered in the block. This field is omitted if no timepoints were encountered.
3. The stoppoints field, if present, describes stop points serviced in the block. This field is omitted if no stop points were serviced.
4. The deviations field, if present, describes deviations from the assigned/scheduled route. This field is omitted if no deviations occurred.
5. The passenger-miles field defines the passenger miles of service provided. This field may be omitted if the vehicle does not have the ability to collect this information.

### ASN1:

```
CCBlockWorkRecord ::= SEQUENCE {
    block          SCHBlockIden,
    begin-time     CPT-DateTime OPTIONAL,
    end-time       CPT-DateTime OPTIONAL,
    timepoints     SEQUENCE (SIZE(1..15000)) OF CCTimepointHistory OPTIONAL,
    stoppoints     SEQUENCE (SIZE(1..15000)) OF OBStoppointRecord OPTIONAL,
    deviations     SEQUENCE (SIZE(1..1000)) OF CCRouteDeviationRecord OPTIONAL,
    passenger-miles CC-PassengerMiles OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[CCOperatingRecord](#)

**The following messages directly use this data frame:**

[CcPTVPerformanceData](#)

## B.6 Data Frame CCCannedAnnouncementRecord {CC 1034}

### Use:

Define a canned announcement which can be triggered automatically or by the dispatcher or driver.

### Remarks:

The format fields are required if the corresponding media types are present. The Boolean fields define where the announcement should be played/displayed. The tts-audio-text field allows a text to speech script to optionally be triggered as the audible canned announcement, in lieu of the announcementAudio.

### ASN1:

```
CCCannedAnnouncementRecord ::= SEQUENCE {
    announcementID          CCAnnouncementIden,
    metadata                CPTRowMetaData,
    announcementText         OB-TextMessage OPTIONAL,
    announcementTextLangs   CPTAdditionalLanguageContents OPTIONAL,
    text-color               PI-PIDTextColor OPTIONAL,
    text-attributes          SEQUENCE (SIZE(1..5)) OF PI-PIDTextAttribute OPTIONAL,
    announcementGraphic     PI-BinaryImageData OPTIONAL,
    announcementAudio        PI-BinaryAudioData OPTIONAL,
    graphicFormat            PI-GraphicFormat OPTIONAL,
    audioFormat              PI-AudioFormat OPTIONAL,
    audio-inside             CPT-Boolean,
    audio-outside            CPT-Boolean,
    text-passenger-displays CPT-Boolean,
    text-destination-signs  CPT-Boolean,
    graphic-passenger-displays CPT-Boolean,
    graphic-destination-signs CPT-Boolean,
    tts-audio-text           PI-DMSMessage OPTIONAL,
    tts-audio-textLangs     CPTAdditionalLanguageContents OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)

## B.7 Data Frame CCCannedMsgDefinition {CC 1003}

### Use:

Define a canned message for use between the VLU/MDT and the CAD system.

### Remarks:

The minimum message is a fixed text contained in text-1. Additional fields are used to alternately specify take lists from which fill-in-the blank style text is to be inserted and fixed text expressed as footnotes. As soon as one field is omitted, all subsequent fields are not allowed, For example if take-3 is not present, text-4, take-4 and so on must also be omitted.

### ASN1:

```
CCCannedMsgDefinition ::= SEQUENCE {
    msgID                      CCCannedMsgIden,
    metadata                    CPTRowMetaData OPTIONAL,
    text-1                      CPT-Footnote,
    text-1Langs                 CPTAdditionalLanguageContents OPTIONAL,
    takeList1                   CCCannedMsgTakeListIden OPTIONAL,
    text-2                      CPT-Footnote OPTIONAL,
    text-2Langs                 CPTAdditionalLanguageContents OPTIONAL,
    takeList2                   CCCannedMsgTakeListIden OPTIONAL,
    text-3                      CPT-Footnote OPTIONAL,
    text-3Langs                 CPTAdditionalLanguageContents OPTIONAL,
    takeList3                   CCCannedMsgTakeListIden OPTIONAL,
    text-4                      CPT-Footnote OPTIONAL,
    text-4Langs                 CPTAdditionalLanguageContents OPTIONAL,
    takeList4                   CCCannedMsgTakeListIden OPTIONAL,
    text-5                      CPT-Footnote OPTIONAL,
    text-5Langs                 CPTAdditionalLanguageContents OPTIONAL,
    takeList5                   CCCannedMsgTakeListIden OPTIONAL,
    text-6                      CPT-Footnote OPTIONAL,
    text-6Langs                 CPTAdditionalLanguageContents OPTIONAL,
    takeList6                   CCCannedMsgTakeListIden OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcCannedMessageText](#)

## B.8 Data Frame CCCannedMsgIden {CC 1040}

### Use:

Uniquely identify a canned message whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CCCannedMsgIden ::= SEQUENCE {
    id                      CC-CannedMsgID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CC-AnnouncementName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CC-AnnouncementDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCCannedMsgDefinition](#)

The following messages directly use this data frame:

[CcCannedMessageText](#)  
[CcDispatchMessage](#)  
[CcOperatorMessage](#)

## B.9 Data Frame CCCannedMsgTakeListIden {CC 1041}

### Use:

Uniquely identify a take list (list of variable items to be inserted into a predefined message) whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CCCannedMsgTakeListIden ::= SEQUENCE {
    id                      CC-CannedMsgTakeListID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CC-AnnouncementName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CC-AnnouncementDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCCannedMsgDefinition](#)  
[CCTakeListItemDefinition](#)

The following messages directly use this data frame:

[CcCannedMessageText](#)

## B.10 Data Frame CCCConnProtLogEntry {CC 1033}

### Use:

Provide a log entry from a business system concerning a transfer connection protection request.

### Remarks:

### ASN1:

```
CCConnProtLogEntry ::= SEQUENCE {
    logged-by-ptv          CPTVehicleIden OPTIONAL,
    logged-by-appl         CPT-ApplicationID OPTIONAL,
    requester-id           CC-TravelerRequestID, -- assigned by requester entity
    requester-time          CPT-DateTime, -- timerequested
    requester-vehicle       CPTVehicleIden OPTIONAL,
    requester-route          SCHRouteIden,
    requester-route-direction LRMS.Direction OPTIONAL,
    to-route-direction        LRMS.Direction OPTIONAL,
    to-stoppoint             CPTStoppointIden,
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,
    requester-wheelchair      CPT-Boolean,
    central-id                CC-TravelerRequestID,
    wait-until               CPT-DateTime OPTIONAL,
    pickup-PTV                 CPTVehicleIden OPTIONAL,
    dispositions            SEQUENCE (SIZE(1..3)) OF CC-RequestDisposition
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcPTVPerformanceData](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogPush](#)

## B.11 Data Frame CCDestinationMessageIden {CC 1042}

### Use:

Identify a destination sign message.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CCDestinationMessageIden ::= SEQUENCE {
    id                      CC-DestinationMessageID,
    ag                      CPT-AgencyID OPTIONAL,
    desig                   CC-DestinationSignDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    name                    CC-DestinationSignName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCDestinationSignMessage](#)  
[CCDestinationSignRule](#)  
[PIEventAnnouncement](#)

No messages were identified that directly use this data frame

## B.12 Data Frame CCDestinationSignMessage {CC 1007}

### Use:

Define a message to be displayed on a bus's destination sign along with an identifier to use in referencing the message.

### Remarks:

1. The messageIcon, and IconFormat fields provide the optional capability to include an icon on the left side of the destination sign. Some agencies use such icons as route identifiers that do not require reading or English skills. 2. The intent is that the message text and the icon if present, would fit on the sign without scrolling, or alternating sign contents.

### ASN1:

```
CCDestinationSignMessage ::= SEQUENCE {
    messageID              CCDestinationMessageIden,
    metadata                CPTRowMetaDataTable,
    messageText             PI-DMSMessage,
```

```
messageTextLangs          CPTAdditionalLanguageContents OPTIONAL,  
messageIcon               PI-BinaryImageData OPTIONAL,  
iconFormat                PI-GraphicFormat OPTIONAL,  
routeID                  SCHRouteIden OPTIONAL,  
direction                 SCH-RouteDirectionName OPTIONAL,  
directionLangs            CPTAdditionalLanguageContents OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)

## B.13 Data Frame CCDestinationSignRule {CC 1005}

### Use:

Provide instructions on what should be displayed on a bus's destination message sign during each portion of its scheduled trips.

### Remarks:

Up to 10 messages may be specified for any trip segment. These messages are then scrolled or displayed alternately. If a different rule is specified for a pattern, and a trip that follows the pattern, the rule specified for the trip overrides the pattern rule. If a rule is specified for a pattern and no rule is specified for the individual trip, the trip inherits the rule from the pattern. The ext-stop-audio field if present indicates that the specified audio should be played on the external speakers upon arrival and stopping at a stoppoint within the interval specified by the rule.

### ASN1:

```
CCDestinationSignRule ::= SEQUENCE {  
    ruleID           SCHActivationIden,  
    metadata         CPTRowMetaDataTable,  
    trips            SEQUENCE (SIZE(1..1000)) OF SCHTripIden OPTIONAL,  
    patterns         SEQUENCE (SIZE(1..1000)) OF SCHPatternIden OPTIONAL,  
    from-timepoint   SCHTimepointIden OPTIONAL,  
    from-location    LRMS.GeoLocation OPTIONAL,  
    fromEvent         SCHActivationIden OPTIONAL,  
    to-timepoint     SCHTimepointIden OPTIONAL,  
    to-location      LRMS.GeoLocation OPTIONAL,  
    toEvent          SCHActivationIden OPTIONAL,  
    messages         SEQUENCE (SIZE(1..10)) OF CCDestinationMessageIden,  
    ext-stop-audio   PI-BinaryAudioData OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)

## B.14 Data Frame CCDetourRecord {CC 1008}

### Use:

Define a detour's impact on a specific route and direction.

### Remarks:

1. The departurePoint field and the returnPoint fields define the points at which the PTV leaves and reenters the scheduled route. If the vehicle does not return to the original route, the returnPoint field is omitted.
2. The waypoints field allows points along the detour to be specified to facilitate mapping, or other applications requiring detailed detour routing data.
3. The "approach.." fields are used to define an approach interval to the detour during which the destination sign is altered to display a detour-specific message. Agencies may elect to use this feature or not on a policy level or on a case by case basis.
4. Approach text may be used without an icon.
5. The timeStopPointsSkipped field lists timepoints and stoppoints that are skipped as a result of the detour. This field is omitted if no timepoints or stoppoints are skipped.
6. The addScheduleTime field defines the time to be added to the scheduled time for timepoints beyond the detour, if applicable.
7. The added-stops field allows existing stop points to be specified along the detour route. These stop points must have been previously specified to the vehicle.
8. The new-stop-locs field allows temporary stop point locations along the detour to be specified.

### ASN1:

```
CCDetourRecord ::= SEQUENCE {
    route                      SCHRouteIden,
    direction                  SCH-RouteDirectionName,
    directionLangs             CPTAdditionalLanguageContents OPTIONAL,
    departurePoint              LRMS.GeoLocation,
    returnPoint                 LRMS.GeoLocation OPTIONAL,
    waypoints                  SEQUENCE (SIZE(1..100)) OF LRMS.GeoLocation OPTIONAL,
    approachTimepoint           SCHTimepointIden OPTIONAL,
    approachDestSignText        PI-DMSMessage OPTIONAL,
    approachDestSignTextLangs  CPTAdditionalLanguageContents OPTIONAL,
    approachDestSignIcon        PI-BinaryImageData OPTIONAL,
    detourDestSignText          PI-DMSMessage OPTIONAL,
    detourDestSignTextLangs    CPTAdditionalLanguageContents OPTIONAL,
    detourDestSignIcon          PI-BinaryImageData OPTIONAL,
    iconFormat                 PI-GraphicFormat OPTIONAL,
    detourDirections            CPT-Footnote OPTIONAL,
    detourDirectionsLangs      CPTAdditionalLanguageContents OPTIONAL,
    skippedTimeStopPoints       SEQUENCE (SIZE(1..100)) OF SCHTimeStoppoint OPTIONAL,
    addScheduleTime             CPT-Duration OPTIONAL,
    added-stops                 SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
    new-stop-locs               SEQUENCE (SIZE(1..100)) OF LRMS.GeoLocation OPTIONAL,
    ...
    -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcNotifyDetour](#)

## B.15 Data Frame CCEngineStartStop {CC 1010}

### Use:

Record an engine start or stop event on a PTV.

### Remarks:

1. The start field is true if this represents an engine start event and false if this represents an engine shutdown event.

### ASN1:

```
CCEngineStartStop ::= SEQUENCE {
    start                  CPT-Boolean,
    time                   CPT-DateTime
}
```

The following data frames directly use this data frame:

[CCOperatingRecord](#)  
[CCVehicleMechRecord](#)

The following messages directly use this data frame:

[CcPTVPerformanceData](#)

## B.16 Data Frame CCEventRecord {CC 1038}

### Use:

Define an exception event that occurs in service.

### Remarks:

Normally associated-incident will not be provided by the operator, however, this information may be added during post processing of log information.

### ASN1:

```
CCEventRecord ::= SEQUENCE {
    location                LRMS.GeoLocation,
    event-type              CC-ServiceEventType,
    time                    CPT-DateTime,
    reporting-PTV          CPTVehicleIden,
    reporting-operator      CPTOperatorIden,
    stoppoint               CPTStoppointIden OPTIONAL,
    associated-incident    IMIncidentIden OPTIONAL,
    text                    CPTFootnote OPTIONAL,
    textLangs               CPTAdditionalLanguageContents OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPTVPerformanceData](#)  
[CcReportServiceEvent](#)  
[CcReportServiceEventAck](#)

## B.17 Data Frame CCHistoricalAdherenceRecord {CC 1035}

**Use:**

Convey historical schedule adherence information.

**Remarks:**

May be used in schedule planning operator evaluations etc.

**ASN1:**

```
CCHistoricalAdherenceRecord ::= SEQUENCE {
    date                  CPT-Date,
    trip                  SCHTripIden,
    timepoint             SCHTimepointIden,
    operator               CPTOperatorIden OPTIONAL,
    vehicle                CPTVehicleIden OPTIONAL,
    offset                 OB-ScheduleAdherenceOffset
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAdherencePerformance](#)

## B.18 Data Frame CCJ1939FaultCode {CC 1082}

### Use:

Provide information about a SAE J1939 diagnostic trouble code.

The Active field relays whether the fault is currently active at the time of the report.

The cumOccur field is the total number of occurrences since the last report. The dtc field corresponds to the J1939 diagnostic trouble code.

### Remarks:

#### ASN1:

```
CCJ1939FaultCode ::= SEQUENCE {
    dtc                      CC-J1939DiagnosticTroubleCode,
    active                   CPT-Boolean,
    vehicle                  CPTVehicleIden OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcJ1939FaultCodeList](#)

## B.19 Data Frame CCLogOffOperator {CC 1083}

### Use:

Provides required data elements (logoffperson and logOffDateTime) and optional data elements that may be included in a user logoff of a PTV.

### Remarks:

It is a local agency decision whether to distinguish operators from other employees in the logon and logoff process.

#### ASN1:

```
CCLogOffOperator ::= SEQUENCE {
    operator                 CPTOperatorIden,
    job-category             CPT-EmplJobCat OPTIONAL,
    logOffDateTime           CPT-DateTime,
    ...  -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

**The following messages directly use this data frame:**

[CcOperatorSignOff](#)  
[ObSignon](#)

## B.20 Data Frame CCLogOnOperator {CC 1085}

**Use:**

Provides required data elements (logon-person, and logOnDateTime) and optional data elements that may be included in a user logon to a PTV.

**Remarks:**

It is a local agency decision whether to distinguish operators from other employees in the logon and logoff processes.

**ASN1:**

```
CCLogOnOperator ::= SEQUENCE {
    operator                  CPToperatorIden,
    job-category               CPT-EmplJobCat OPTIONAL,
    operational-status          SCH-ServiceType OPTIONAL,
    organization                CPTOrganizationalUnitIden OPTIONAL,
    operator-base               CPToperatorBaseIden OPTIONAL,
    vehicle-base                CPTTransitFacilityIden OPTIONAL,
    block                      SCHBlockIden OPTIONAL,
    run                         SCHRunIden OPTIONAL,
    route                       SCHRouteIden OPTIONAL,
    logOnDateTime                CPT-DateTime,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcOperatorSignOn](#)  
[ObSignon](#)

## B.21 Data Frame CCManualAlarmDefinition {CC 1018}

### Use:

Define an alarm to be available to a vehicle operator for manual activation

### Remarks:

### ASN1:

```
CCManualAlarmDefinition ::= SEQUENCE {
    alarmID                  CC-ManualAlarmID,
    metadata                  CPTRowMeta OPTIONAL,
    alarmText                CC-AlarmText,
    alarmTextLangs            CPTAdditionalLanguageContents OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPTVAlarmLimits](#)

## B.22 Data Frame CCOffRouteTrack {CC 1016}

### Use:

Provide tracking information for an off route vehicle.

### Remarks:

The loc-xxx fields provide the tracking data. The time field indicates when the tracking point was recorded.

### ASN1:

```
CCOffRouteTrack ::= SEQUENCE {
    loc-lat                 LRMS.Latitude,
    loc-lon                 LRMS.Longitude,
    loc-dir                 LRMS.Angle,
    loc-spd                 OB-J1587-VelocityVectorSpeed,
    time                    CPT-DateTime
}
```

**The following data frames directly use this data frame:**

[CCRRouteDeviationRecord](#)

**No messages were identified that directly use this data frame**

## B.23 Data Frame CCOperatingRecord {CC 1023}

### Use:

Convey operating information logged by a PTV.

### Remarks:

### ASN1:

```
CCOperatingRecord ::= SEQUENCE {
    vehicle                  CPTVehicleIden OPTIONAL,
    begin-datetime           CPT-DatTime,
    end-datetime             CPT-DatTime,
    operators                SEQUENCE (SIZE(1..100)) OF CCSignOnOff OPTIONAL,
    engine-cycles            SEQUENCE (SIZE(1..100)) OF CCEngineStartStop OPTIONAL,
    vehicle-parameters       SEQUENCE (SIZE(1..10000)) OF OBParameterDumpEntry OPTIONAL,
    work-histories          SEQUENCE (SIZE(1..10000)) OF CCBlockWorkRecord OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

### The following messages directly use this data frame:

[CcOperatingData](#)

## B.24 Data Frame CCOperatorAssignmentChange {CC 1013}

### Use:

Change a bound operator assignment that was previously provided, to a different operator.

### Remarks:

1. The original-operator field may optionally be used to identify the originally assigned operator. The new-operator field must be used to identify the new operator.
2. The run or the specific-trips field must be present to define the run or sequence of trips for which the change is to be made.
3. The begin and end fields may be used to limit the scope in time for which the substitution is made.

### ASN1:

```
CCOperatorAssignmentChange ::= SEQUENCE {
    run                      SCHRunIden,
    specific-trips           SEQUENCE (SIZE(1..50)) OF SCHTripIden,
    change-stoppoint         CPTStoppointIden OPTIONAL,
    change-location          LRMS.GeoLocation OPTIONAL,
    original-operator        CPTOperatorIden OPTIONAL,
```

```
new-operator      CPTOperatorIden OPTIONAL,  
begin           CPT-DateTime OPTIONAL,  
end             CPT-DateTime OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcChangeAssignments](#)  
[CcChangeAssignmentsAck](#)

## B.25 Data Frame CCPTVAlarm {CC 1026}

**Use:**

Convey a health alarm concerning a PTV.

**Remarks:**

**ASN1:**

```
CCPTVAlarm ::= SEQUENCE {  
    vehicle          CPTVehicleIden,  
    alarm-info       CCAlarm  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcFleetHealthAlarm](#)

## B.26 Data Frame CCPTVLocation {CC 1027}

### Use:

Convey a PTV's current location.

### Remarks:

The tripDistance field, if present, indicates the distance the PTV has traveled since the beginning of the current trip.

The tripID field, if present identifies the current scheduled trip that the PTV is operating.

### ASN1:

```
CCPTVLocation ::= SEQUENCE {
    vehicle                      CPTVehicleIden,
    trainID                     CPTTrainIden OPTIONAL,
    date-time                   CPT-DateTime,
    loc-lat                      LRMS.Latitude,
    loc-lon                      LRMS.Longitude,
    loc-dir                      LRMS.Angle,
    loc-spd                      OB-J1587-VelocityVectorSpeed,
    onRoute                     CC-RouteAdherenceState OPTIONAL,
    last-timepoint               SCHTimepointIden OPTIONAL,
    data-quality                 SPDataQuality OPTIONAL,
    onboard                     OB-J1587-PassengerCounterPatronCount OPTIONAL,
    manufacturer-data           CC-ManufacturerData OPTIONAL,
    tripDistance                LRMS.Distance OPTIONAL,
    tripID                      SCHTripIden OPTIONAL,
    routeID                     SCHRoutIden OPTIONAL,
    odometer-reading            CPT-GenericCounter OPTIONAL,
    blockID                     SCHBlockIden OPTIONAL,
    operatorID                  CPTOperatorIden OPTIONAL,
    runID                       SCHRUnIden OPTIONAL,
    destSignCode                CC-DestinationMessageID OPTIONAL,
    emergencyCodes              SEQUENCE (SIZE(1..3)) OF C-EmergencyCode OPTIONAL,
    lastTimepointTime           CPT-DateTime OPTIONAL, --- added for TCIP 4.1
    nextTimepoint               SCHTimepointIden OPTIONAL, --- added for TCIP 4.1
    nextTimepointTime           CPT-DateTime OPTIONAL, --- added for TCIP 4.1
    lateSeconds                 PI-OffSchedule OPTIONAL, --- added for TCIP 4.1
    routeDirection              SCH-RouteDirectionName OPTIONAL --- added for TCIP 4.1
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcFleetLocation](#)

## B.27 Data Frame CCPTVTripData {CC 1043}

### Use:

Used in a CcPTVTrips message to convey information about a trip that the vehicle has been assigned to. Also used in ObNotifyTripStart message to notify onboard components about trip information at the start of a trip.

### Remarks:

1. This data frame defines the trip in two ways, based on a pattern

identifier contained in the pattern field, or based on a list of

timepoint locations contained in the timepoints field. 2. If the vehicle is to start or end its association with trip at a location other than the scheduled beginning or end of the trip, then the start-location, or end-location should reflect the beginning and/or end of the vehicle's association with the trip, rather than the trip's beginning or end. 3. If the operator is to change in the middle of the trip on the same PTV, the operator2 field is used to reflect the second operator, and the operator-change field is included to reflect the location for the change. 4. Information may need to be limited when used in a CcPTVTrips message due to communications capacity considerations. A trip is scheduled to run on a specific calendar date if a) Its service type matches one of the service types listed for the date, and it has no exceptions listed in its noRunExceptions that match any exceptions active for that calendar date, OR b) it has an entry in its runExceptions list that matches an exception that is active for that calendar date.

### ASN1:

```
CCPTVTripData ::= SEQUENCE {
    operator                  CPOperatorIden,
    operator2                 CPOperatorIden OPTIONAL,
    pattern-Version           SCH-TimetableVersionID OPTIONAL,
    timepoint-Version         SCH-TimetableVersionID OPTIONAL,
    pattern                   SCHPatternIden OPTIONAL,
    start-Time                SCH-Time, -- may not be a timept
    end-Time                  SCH-Time, -- may not be a timept
    start-Location            LRMS.GeoLocation,
    end-Location               LRMS.GeoLocation,
    timepoints                SEQUENCE (SIZE(1..500)) OF LRMS.GeoLocation OPTIONAL,
    timepoint-times            SEQUENCE (SIZE(1..500)) OF SCH-Time OPTIONAL,
    trip                      SCHTripIden,
    operator-Change            LRMS.GeoLocation OPTIONAL,
    events                     SEQUENCE (SIZE(1..500)) OF SCHEvent OPTIONAL,
    notes                      SEQUENCE (SIZE(1..50)) OF SCHNoteInfo OPTIONAL,
    operating-Time-Type       SCH-OperatingTimeType OPTIONAL,
    trip-type                 SCH-TripType OPTIONAL,
    service-type               SCH-ServiceType OPTIONAL,
    runExceptions              SEQUENCE (SIZE(1..500)) OF SCH-ExceptionID OPTIONAL,
    noRunExceptions            SEQUENCE (SIZE(1..500)) OF SCH-ExceptionID OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcPTVTrips](#)

[ObNotifyTripStart](#)

## B.28 Data Frame CCPParameterRateConfiguration {CC 1086}

### Use:

The rate at which a logical device should report a specific parameter's value. The device may be a trip recorder, logic unit, or the source device.

### Remarks:

### ASN1:

```
CCParameterRateConfiguration ::= SEQUENCE {
    parameters           SEQUENCE (SIZE(1..100)) OF OBParameterID,
    rate                 OB-Rate
}
```

The following data frames directly use this data frame:

[CCParameterReportRequest](#)

The following messages directly use this data frame:

[CcPTVAlarmLimits](#)

## B.29 Data Frame CCParameterReportRequest {CC 1087}

### Use:

A request by the CC to the OB to reconfigure the reporting capabilities to report a specific parameter(s) at a specified rate (for over the air/real-time reporting).

### Remarks:

### ASN1:

```
CCParameterReportRequest ::= SEQUENCE {
    logical-device-address   OB-MID,
    metadata                CPTRowMetaDataTable OPTIONAL,
    parameter-rate-requests SEQUENCE (SIZE(1..100)) OF CCParameterRateConfiguration
}
```

No data frames were identified that directly use this data frame

No messages were identified that directly use this data frame

## B.30 Data Frame CCPParameterThreshold {CC 1088}

### Use:

The definition of the threshold in which a parameter value is constrained before it triggers an exception (alarm).

### Remarks:

All OB-Parameters are of the type specified by OB-PID. The hi-value-alarm and low-value-alarm fields indicate the thresholds that, when exceeded will trigger an alarm. The hi-value-recover, and low-value-recover fields indicate the thresholds that allow the parameter to be declared back within range. Normally the range of the recovery values is smaller than the range of alarm values to prevent excessive numbers of alarms and recoveries when the parameter hovers near the alarm threshold value.

### ASN1:

```
CCParameterThreshold ::= SEQUENCE {
    parameter          OBParameterID,
    metadata           CPTRowMetaData OPTIONAL,
    hi-value-alarm     OBParameterValue OPTIONAL,
    hi-value-recover   OBParameterValue OPTIONAL,
    lo-value-alarm     OBParameterValue OPTIONAL,
    lo-value-recover   OBParameterValue OPTIONAL,
    source-device      OB-MID OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcPTVAlarmLimits](#)  
[CcPTVehicleAlarmSub](#)

### B.31 Data Frame CCPollContents {CC 1021}

#### Use:

Convey data from the polling controller to the PTV associated with a poll.

#### Remarks:

The last-message field conveys the number of the last message wrapper received from the PTV, zero if none since slot was allocated.

#### ASN1:

```
CCPollContents ::= SEQUENCE {
    last-message          CC-MsgCounter,
    polling-group         CC-PollingGroup,
    data-requested        CC-PollDataRequested,
    agency-data           CC-AgencyData OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**No messages were identified that directly use this data frame**

### B.32 Data Frame CCPollControl {CC 1019}

#### Use:

Convey polling control information for a single PTV from the CAD/AVL System to the Polling Controller.

#### Remarks:

#### ASN1:

```
CCPollControl ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    metadata                 CPTRowMetaDate OPTIONAL,
    group-id                CC-PollingGroup,
    data-requested          CC-PollDataRequested,
    agency-data              CC-AgencyData OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPollParameters](#)

## B.33 Data Frame CCPollResponseContents {CC 1020}

### Use:

Convey operational data from the PTV to the CAD/AVL System via the polling controller

### Remarks:

The last-message field indicates the number of the last message wrapper received from the polling controller, zero if none received so far.

### ASN1:

```
CCPollResponseContents ::= SEQUENCE {
    last-message           CC-MsgCounter,
    latitude                LRMS.Latitude,
    longitude               LRMS.Longitude,
    heading                 SP-AngularDirection OPTIONAL,
    speed                   OB-J1587-VelocityVectorSpeed OPTIONAL,
    statusMap               CC-PollResponseStatus,
    time                    CPT-DateTime OPTIONAL,
    activeAlarms            SEQUENCE (SIZE(1..4)) OF CCAlarm OPTIONAL,
    currentRoute             SCHRouteIden OPTIONAL,
    lastTimepoint            SCHTimepointIden OPTIONAL,
    lastStoppoint            CPTStoppointIden OPTIONAL,
    lastTimepointTime        SCH-Time OPTIONAL,
    lastTimepointOffSched   CPT-Duration OPTIONAL,
    currentPattern           SCHPatternIden OPTIONAL,
    currentSegment            SCHPatternSegmentIden OPTIONAL,
    passengerCount          OB-J1587-PassengerCounterPatronCount OPTIONAL,
    agencyData               CC-AgencyData OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcPollResults](#)

### B.34 Data Frame CCPollingGroupInit {CC 1029}

**Use:**

Initialize a polling group by assigning it a group number and IP address

**Remarks:**

**ASN1:**

```
CCPollingGroupInit ::= SEQUENCE {
    group          CC-PollingGroup,
    ip-address     CPT-IPAddress
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPollParameters](#)

### B.35 Data Frame CCPollingGroupUpdate {CC 1028}

**Use:**

Identify changes to polling groups used by the TCIP Polling Controller.

**Remarks:**

Any group assignment, overrides previous assignments for that PTV. Assignment of group zero removes the PTV from all polling groups.

**ASN1:**

```
CCPollingGroupUpdate ::= SEQUENCE {
    vehicle        CPTVehicleIden,
    group          CC-PollingGroup
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPollParameters](#)

## B.36 Data Frame CCPullInReport {CC 1024}

### Use:

Report a pull in event.

### Remarks:

### ASN1:

```
CCPullInReport ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    pullin-time              CPT-DateTime OPTIONAL,
    pullin-trip               SCHTripIden OPTIONAL,
    pullin-location           LRMS.GeoLocation OPTIONAL,
    schedPullInTime           CPT-DateTime OPTIONAL,
    parked-spot               CPTParkingSpace,
    trainID                  CPTTrainIden OPTIONAL,
    ...
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcReportPullIns](#)

## B.37 Data Frame CCPullOutReport {CC 1025}

### Use:

Report a pull out event.

### Remarks:

### ASN1:

```
CCPullOutReport ::= SEQUENCE {
    vehicleID                CPTVehicleIden,
    pullout-time              CPT-DateTime OPTIONAL,
    pullout-trip               SCHTripIden OPTIONAL,
    pullout-location           LRMS.GeoLocation OPTIONAL,
    schedPullOutTime           CPT-DateTime OPTIONAL,
    parked-spot               CPTParkingSpace OPTIONAL,
    trainID                  CPTTrainIden OPTIONAL,
    ...
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

**The following messages directly use this data frame:**

[CcReportPullOuts](#)

### **B.38 Data Frame CCRouteAdherenceEntry {CC 1089}**

**Use:**

Define off route detection and reporting criteria. It records the frequency that a transit vehicle must report when it is off route (report-frequency). The off-route-distance is the (total) minimum distance the vehicle must be off route for this reporting rate take effect.

**Remarks:**

**ASN1:**

```
CCRouteAdherenceEntry ::= SEQUENCE {
    off-route-distance      LRMS.Distance,
    report-frequency        CC-ExceptionFrequencyReport OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCActivateRouteAdherence](#)

**No messages were identified that directly use this data frame**

### **B.39 Data Frame CCRouteDeviationRecord {CC 1009}**

**Use:**

Provide historical information on a route deviation by a PTV

**Remarks:**

1. The begin-time, and end-time fields specify the interval of departure from the scheduled route. 2. The track field specifies a series of locations and times that the vehicle transited while off route. 3. The interval between track entries is governed by the field offRouteLogRates in the CcPTVAlarmLimits message.

**ASN1:**

```
CCRouteDeviationRecord ::= SEQUENCE {
    begin-time            CPT-DateTime,
    end-time              CPT-DateTime,
    run                   SCHRUnIden,
    tracks                SEQUENCE (SIZE(1..15000)) OF CCoffRouteTrack
}
```

**The following data frames directly use this data frame:**

[CCBlockWorkRecord](#)

**No messages were identified that directly use this data frame**

## B.40 Data Frame CCRouteWelcomeAnnouncement {CC 1044}

**Use:**

Provide an announcement to passengers onboard a PTV that is starting a trip on a route.

**Remarks:**

**ASN1:**

```
CCRouteWelcomeAnnouncement ::= SEQUENCE {
    pattern                  SCHPatternIden,
    audio-filename            CPT-Footnote OPTIONAL,
    sign-filename             CPT-Footnote OPTIONAL,
    metadata                  CPTRowMetaData OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)

## B.41 Data Frame CCSignOnOff {CC 1014}

### Use:

Record an operator sign on or sign off event.

### Remarks:

1. The sign-on field is true if this represents a sign-on event, and false if this represents a sign-off event.
2. The run field is optional because a run might not be identifiable for all cases (e.g. wrong operators, no run assigned).

### ASN1:

```
CCSignOnOff ::= SEQUENCE {
    operator          CPToperatorIden,
    sign-on           CPT-Boolean,
    time              CPT-DaTeTime,
    run               SCHRUnIden OPTIONAL,
    ...   -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[CCOperatingRecord](#)

The following messages directly use this data frame:

[CcPTVPerformanceData](#)

## B.42 Data Frame CCStopAnnunciationRecord {CC 1006}

### Use:

Provides stop point specific information to be used in announcing a bus stop.

### Remarks:

1. Agencies may specify text-only, or audio-only announcements.
2. The custom-settings field is present only if this stop requires a customized announcement trigger distance or time in advance of the stop; otherwise the default distance provided in the CcAnnouncementInfo message is used to determine when the next stop announcement should be triggered.
3. A CcStopAnnunciationRecord is stored until overwritten by another record with the same stop point identifier.
4. Other stop point information (e.g. stop point location) is provided using the Load Schedule dialog.
5. The audio format is defined in CcAnnouncementInfo message.
6. The four disable fields are only included if their value is TRUE. These indicate that the default stop preamble and/or trailer information in the CcAnnouncementInfo message should not be used in announcing this stop.
7. The tts-stop-name field allows a second spelling of the stop name to be conveyed in addition to the stop-name-text field. This second spelling may be required at some stops to cause the pronunciation of the stop name by a text-to-speech-based annunciation system to correctly pronounce the stop name.
8. The thisstop-audio-filename and nextstop\_audio\_filename fields allow filenames containing audio or audio/video files to be specified that should be played at the stop or in advance of the stop respectively.
9. The thisstop-sign-filename and nextstop-sign-filename fields allow binary files to be specified for use with LED or other signs at the stop or in advance of the stop respectively.

**ASN1:**

```
CCStopAnnunciationRecord ::= SEQUENCE {
    stoppoint          CPTStoppointIden,
    metadata           CPTRowMetadata,
    stop-name-audio   PI-BinaryAudioData OPTIONAL,
    stop-name-text     PI-PIDTakeText OPTIONAL,
    stop-name-textLangs CPTAdditionalLanguageContents OPTIONAL,
    thisstop-audio-filename CPT-Footnote OPTIONAL,
    nextstop-audio-filename CPT-Footnote OPTIONAL,
    thisstop-sign-filename CPT-Footnote OPTIONAL,
    nextstop-sign-filename CPT-Footnote OPTIONAL,
    stop-name-filename CPT-Footnote OPTIONAL,
    stop-distance      LRMS.Distance,
    stop-time          CPT-Duration,
    disable-before-stop-audio CPT-Boolean OPTIONAL,
    disable-after-stop-audio CPT-Boolean OPTIONAL,
    disable-before-stop-text CPT-Boolean OPTIONAL,
    disable-after-stop-text CPT-Boolean OPTIONAL,
    tts-stop-name      PI-PIDTakeText OPTIONAL,
    tts-stop-nameLangs CPTAdditionalLanguageContents OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)

## B.43 Data Frame CCTakeIden {CC 1094}

**Use:**

To identify a take (snippet of text) from a Take List (list of possible text snippet values) to be included in a canned message.

**Remarks:**

**ASN1:**

```
CCTakeIden ::= SEQUENCE {
    id                CC-CannedMsgTakeID,
    ag                CPT-AgencyID OPTIONAL,
    name              CC-AnnouncementName OPTIONAL,
    nameLangs         CPTAdditionalLanguageContents OPTIONAL,
    desig             CC-AnnouncementDesignator OPTIONAL,
    desigLangs        CPTAdditionalLanguageContents OPTIONAL,
    agdesig          CPT-AgencyDesignator OPTIONAL,
    agdesigLangs     CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCTakeListItemDefinition](#)

**The following messages directly use this data frame:**

[CcDispatchMessage](#)

## B.44 Data Frame CCTakeListItemDefinition {CC 1004}

**Use:**

Define a take list element for use in filling in blanks in a canned message.

**Remarks:**

The takeListID identifies the list of takes to which the item belongs (a list might be the list of destination names another list would be a list of route names and so on). The takeID field identifies the item number within the list. The takeText field provides the content of the item. When Identifying an item for deletion from onboard storage, the takeText field is omitted.

**ASN1:**

```
CCTakeListItemDefinition ::= SEQUENCE {
    takeListID          CCCannedMsgTakeListIden,
    takeID              CCTakeIden,
    metadata            CPTRowMetaData OPTIONAL,
    takeText            CPT-Footnote OPTIONAL,
    textTextLangs       CPTAdditionalLanguageContents OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcCannedMessageText](#)

## B.45 Data Frame CCTimepointHistory {CC 1012}

### Use:

Provide a history of times that timepoints were encountered in a block of work.

### Remarks:

### ASN1:

```
CCTimepointHistory ::= SEQUENCE {
    timepoint          SCHTimepointIden,
    run                SCHRunIden,
    scheduledTime      SCH-Time,
    actualTime         SCH-Time,
    trip               SCHTripIden OPTIONAL
}
```

The following data frames directly use this data frame:

[CCBlockWorkRecord](#)

No messages were identified that directly use this data frame

## B.46 Data Frame CCTrainDefect {CC 1093}

### Use:

Provide details of a defect detected on a train by a wayside train defect detector.

### Remarks:

### ASN1:

```
CCTrainDefect ::= SEQUENCE {
    time              CPT-DateTime,
    detectorID       CCTrainDetectorIden,
    defectType        CC-TrainDefectType,
    axleSequence      CPT-GenericCounter OPTIONAL, -- -- how many axles into the train
    carSequence       CPT-GenericCounter OPTIONAL, -- -- how many cars into the train
    trainID           CPTTrainIden OPTIONAL, -- -- train id if known
    carID             CPTVehicleIden OPTIONAL, -- -- car id if known
    tempF             CPT-GenericCounter OPTIONAL -- -- temperature associated with
    defect            }

```

No data frames were identified that directly use this data frame

**The following messages directly use this data frame:**

[CcReportTrainPassage](#)

## **B.47 Data Frame CCTrainDetectorIden {CC 1092}**

**Use:**

Identifies a train detector, that may optionally also identify defects in the train.

**Remarks:**

**ASN1:**

```
CCTrainDetectorIden ::= SEQUENCE {
    id                      CPT-DetectorID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCTrainDefect](#)

**The following messages directly use this data frame:**

[CcReportTrainPassage](#)

## B.48 Data Frame CCTripCancellationRecord {CC 1084}

### Use:

Specify a trip or list of trips to be cancelled on one or more days or day types.

### Remarks:

If the day-types field is present, then the listed trips are cancelled for all days of the indicated types. If the specific-dates field is present, then the listed trips are cancelled on the indicated dates. If neither field is present, the current date is implied. Caution should be used in specifying cancellations by day types, recognizing that a day may have more than one type concurrently.

### ASN1:

```
CCTripCancellationRecord ::= SEQUENCE {
    cancelled-trips      SEQUENCE (SIZE(1..1000)) OF SCHTripIden,
    day-types            SEQUENCE (SIZE(1..20)) OF SCH-DayType OPTIONAL,
    specific-dates       SEQUENCE (SIZE(1..300)) OF CPT-Date OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcCancelTrips](#)

## B.49 Data Frame CCVehicleAssignmentChange {CC 1015}

### Use:

Change a bound vehicle assignment that was previously provided to a different vehicle.

### Remarks:

1. The original-vehicle field may optionally be used to identify the vehicle released from the assignment. The new-vehicle field must be used to identify the new vehicle. The original-vehicle field may optionally be used to identify the vehicle released from the assignment.
2. The block or specific-trips field must be present to identify the run or sequence of trips for which the change is made. The block or specific-trips field must be present to identify the run or sequence of trips for which the change is made.
3. The begin and end fields may be used to limit the scope in time for which the substitution is made. The begin and end fields may be used to limit the scope in time for which the substitution is made.

### ASN1:

```
CCVehicleAssignmentChange ::= SEQUENCE {
    block                  SCHBlockIden,
    specific-trips         SEQUENCE (SIZE(1..50)) OF SCHTripIden,
    original-vehicle       CPTVehicleIden OPTIONAL,
    new-vehicle             CPTVehicleIden OPTIONAL,
    begin                  CPT-DateTime OPTIONAL,
    end                    CPT-DateTime OPTIONAL,
    trainID                CPTTrainIden OPTIONAL,
```

```
    consistBeforeCars      SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    consistAfterCars      SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcChangeAssignments](#)  
[CcChangeAssignmentsAck](#)

## B.50 Data Frame CCVehicleMechRecord {CC 1030}

**Use:**

Convey mechanical and health data captured by a vehicle during one or more trips.

**Remarks:**

**ASN1:**

```
CCVehicleMechRecord ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    begin-time               CPT-Datetime,
    end-time                 CPT-Datetime,
    begin-odometer           CPT-GenericCounter OPTIONAL,
    end-odometer              CPT-GenericCounter OPTIONAL,
    engine-cycles            SEQUENCE (SIZE(1..100)) OF CCEngineStartStop OPTIONAL,
    vehicle-parameters       SEQUENCE (SIZE(1..100000)) OF OBParameterDumpEntry OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcFleetMechanicalData](#)

## B.51 Data Frame CCVehiclePassRecord {CC 1031}

### Use:

Convey historical passenger count data for a vehicle.

### Remarks:

### ASN1:

```
CCVehiclePassRecord ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    begin-time               CPT-DatTime,
    end-time                 CPT-DatTime,
    event-records            SEQUENCE (SIZE(1..5000)) OF OBStoppointRecord
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcFleetPassengerData](#)

## B.52 Data Frame CCVideoRecord {CC 1022}

### Use:

Convey a digitized video image sequence from a video camera.

### Remarks:

### ASN1:

```
CCVideoRecord ::= SEQUENCE {
    vehicle                  CPTVehicleIden OPTIONAL,
    stoppoint                CPTStoppointIden OPTIONAL,
    facility                 CPTTransitFacilityIden OPTIONAL,
    cameraNumber             CPT-GenericCounter OPTIONAL,
    begin-datetime           CPT-DatTime OPTIONAL,
    end-datetime              CPT-DatTime OPTIONAL,
    video-images              SEQUENCE (SIZE(1..10000)) OF PI-BinaryVideoData
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcUnloadImages](#)  
[CcVideoImages](#)

## B.53 Data Frame CCWOUpdate {CC 1037}

### Use:

Define an update to an open workorder.

### Remarks:

### ASN1:

```
CCWOUpdate ::= SEQUENCE {
    update-time           CPT-DateTime,
    employee-updater      CPTAssignedEmployee OPTIONAL,
    contractor-updater    CPTAssignedContractor OPTIONAL,
    update-text            CPT-Footnote,
    update-textLangs       CPTAdditionalLanguageContents OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[CCWorkOrder](#)

No messages were identified that directly use this data frame

## B.54 Data Frame CCWheelchairLogEntry {CC 1032}

### Use:

Provide a log entry from a business system concerning a wheelchair request.

### Remarks:

### ASN1:

```
CCWheelchairLogEntry ::= SEQUENCE {
    logged-by-PTV          CPTVehicleIden OPTIONAL,
    logged-by-appl          CPT-ApplicationID OPTIONAL,
    requester-id            CC-TravelerRequestID, -- assigned by requester entity
    requester-time          CPT-DateTime, -- timerequested
    requester-vehicle        CPTVehicleIden OPTIONAL,
    requester-route          SCHRouteIden,
    requester-route-direction LRMS.Direction OPTIONAL,
    to-route-direction       LRMS.Direction OPTIONAL,
    to-stoppoint             CPTStoppointIden,
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,
```

```
central-id          CC-TravelerRequestID,  
wait-until         CPT-DateTime OPTIONAL,  
pickup-PTV          CPTVehicleIden OPTIONAL,  
dispositions        SEQUENCE (SIZE(1..3)) OF CC-RequestDisposition  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPTVPerformanceData](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogPush](#)

## B.55 Data Frame CCWorkOrder {CC 1036}

**Use:**

Track maintenance and repair requests.

**Remarks:**

For new work orders (work order number not yet assigned), the work order number field should contain blanks.

**ASN1:**

```
CCWorkOrder ::= SEQUENCE {  
    work-order-number      CC-WorkorderNumber, -- blank if unassigned  
    agencyID                CPT-AgencyID OPTIONAL,  
    requester               CPTEmployeeIden OPTIONAL,  
    request-time             CPT-DateTime,  
    work-location            LRMS.GeoLocation OPTIONAL,  
    work-stoppoint           CPTStoppointIden OPTIONAL,  
    work-vehicles             SEQUENCE (SIZE(1..1000)) OF CPTVehicleIden OPTIONAL,  
    equipmentIDs            SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL,  
    work-description          CPT-Footnote,  
    work-descriptionLangs    CPTAdditionalLanguageContents OPTIONAL,  
    needed-by                 CPT-DateTime OPTIONAL,  
    assigned-employees        SEQUENCE (SIZE(1..100)) OF CPTAssignedEmployee OPTIONAL,  
    assigned-contractors     SEQUENCE (SIZE(1..100)) OF CPTAssignedContractor OPTIONAL,  
    needed-parts-materials   SEQUENCE (SIZE(1..100)) OF CPTNeededSupplies OPTIONAL,  
    updates                   SEQUENCE (SIZE(1..20)) OF CCWOUpdate OPTIONAL,  
    related-work-orders       SEQUENCE (SIZE(1..20)) OF CC-WorkorderNumber OPTIONAL,  
    assigned-supervisor      CPTAssignedEmployee OPTIONAL,  
    status                    CPT-Footnote OPTIONAL,  
    statusLangs               CPTAdditionalLanguageContents OPTIONAL,  
    closed                   CPT-Boolean,  
    closed-time               CPT-DateTime OPTIONAL,  
    ... -- # LOCAL_CONTENT  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcOpenWorkOrderAck](#)  
[CcOpenWorkorder](#)  
[CcWorkOrderAssign](#)  
[CcWorkOrderUpdate](#)

## B.56 Data Frame CPTAdditionalLanguageContents {CPT 1025}

**Use:**

Provides text string information in languages other than the default language. The default language and the additional languages to be included are identified in the CPTLanguageList frame provided in a separate part of the message. The contents must be provided in the same languages and in the same order as specified in the CPTLanguageList frame.

**Remarks:**

Define the contents of a text field in additional languages. In creating a message or frame the primary language content goes in the field preceding the CPTAdditionalLanguageContents frame. Content in additional languages goes into entries in the corresponding CPTAdditionalLanguageContents frame. If a CPTAdditionalLanguageContents frame is included, the language contents in the CPTAdditionalLanguageContents frame must be included in exactly the same order as the additional languages are specified in the CPTLanguageList near the beginning of the enclosing message. It is an error for a CPTAdditionalLanguageList frame to be included in a message containing a different number of content entries than the number of additional languages specified in the CPTLanguageList frame. It is not an error to omit the CPTAdditionalLanguageContents frame in any context.

**ASN1:**

```
CPTAdditionalLanguageContents ::= SEQUENCE {
    addLangs           SEQUENCE (SIZE(1..50)) OF CPT-AddLanguageContent
}
```

**The following data frames directly use this data frame:**

[CCAnnouncementIden](#)  
[CCCannedAnnouncementRecord](#)  
[CCCannedMsgDefinition](#)  
[CCCannedMsgIden](#)  
[CCCannedMsgTakeListIden](#)  
[CCDestinationMessageIden](#)  
[CCDestinationSignMessage](#)  
[CCDetourRecord](#)  
[CCEventRecord](#)  
[CCManualAlarmDefinition](#)  
[CCStopAnnunciationRecord](#)  
[CCTakeIden](#)  
[CCTakeListItemDefinition](#)  
[CCTrainDetectorIden](#)  
[CCWOUpdate](#)  
[CCWorkOrder](#)  
[CPTAgreementIden](#)  
[CPTAirConditionerIden](#)  
[CPTAssignedContractor](#)  
[CPTAssignedEmployee](#)  
[CPTChannel](#)

[CPTConstructionPermit](#)  
[CPTConstructionPermitIden](#)  
[CPTEmployee](#)  
[CPTEmployeeIden](#)  
[CPTEngineIden](#)  
[CPTFacilityEntranceIden](#)  
[CPTFleetSubsetGroup](#)  
[CPTGenericIden](#)  
[CPTIntersectionIden](#)  
[CPTNeededSupplies](#)  
[CPTOperatorBaseIden](#)  
[CPTOperatorIden](#)  
[CPTOrganizationalUnitIden](#)  
[CPTPTVehicle](#)  
[CPTPTVehicleBase](#)  
[CPTPhotographIden](#)  
[CPTRadioZone](#)  
[CPTShelterIden](#)  
[CPTStoppoint](#)  
[CPTStoppointAgreement](#)  
[CPTStoppointEntrance](#)  
[CPTStoppointIden](#)  
[CPTStoppointSubsetGroup](#)  
[CPTTrainIden](#)  
[CPTTransferClusterIden](#)  
[CPTTransitFacility](#)  
[CPTTransitFacilityIden](#)  
[CPTTransmissionIden](#)  
[CPTTruckIden](#)  
[CPTVehicleIden](#)  
[FCAllowedTransferRecord](#)  
[FCCOMPONENTEventInstance](#)  
[FCCOMPONENTEventStatusReport](#)  
[FCEquipmentGroup](#)  
[FCFareMediaID](#)  
[FCFarePolicyIden](#)  
[FCFareZoneIden](#)  
[IMIncident](#)  
[IMIncidentIden](#)  
[IMInjury](#)  
[IMInjuryInfo](#)  
[IMOOtherVehicleInvolved](#)  
[IMPerson](#)  
[IMResponseUnit](#)  
[IMVehicleIDInformation](#)  
[OBHealthStatusRecord](#)  
[OBParameterID](#)  
[OBSWDataLoadID](#)  
[PIAgencyProfile](#)  
[PIAgencyStaticFile](#)  
[PIAmenity](#)  
[PIAmenityIden](#)  
[PIAnnouncement](#)  
[PIAvailablePeriod](#)  
[PICustSubscription](#)  
[PIEventAnnouncement](#)  
[PIFoundItem](#)  
[PIGeoZoneIden](#)  
[PILandmark](#)  
[PILostItem](#)  
[PIMap](#)  
[PINearestStop](#)

[PINearestStopRequest](#)  
[PIPTVDelayed](#)  
[PIParkingFacility](#)  
[PIRecurringTrip](#)  
[PIRouteInfo](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIServiceBulletin](#)  
[PIServiceBulletinIden](#)  
[PIServiceDelayed](#)  
[PIServiceStatusRequest](#)  
[PISignIden](#)  
[PIStaticSign](#)  
[PIStopPatternRouteEntry](#)  
[PITravelerIden](#)  
[PITravelerProfile](#)  
[PIXMLTimetable](#)  
[SCHActivationIden](#)  
[SCHBlockIden](#)  
[SCHBlockSubsetsGroup](#)  
[SCHCalendarEntry](#)  
[SCHCalendarException](#)  
[SCHEventIden](#)  
[SCHNoteIden](#)  
[SCHNoteInfo](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHPatternIden](#)  
[SCHPatternInfo](#)  
[SCHPatternSegmentIden](#)  
[SCHPullInOutInfo](#)  
[SCHRosterIden](#)  
[SCHRouteIden](#)  
[SCHRUnIden](#)  
[SCHRunningTimeEntry](#)  
[SCHServiceAtStop](#)  
[SCHTimeTableEntry](#)  
[SCHTimepointIden](#)  
[SCHTimepointInterval](#)  
[SCHTripDetailInfo](#)  
[SCHTripIden](#)  
[SCHTripInfo](#)  
[SCHValidationrror](#)  
[SPFeatureIden](#)  
[SPIntDirection](#)  
[SPIteriorLocation](#)  
[SPLink](#)  
[SPLocationConversionEntry](#)  
[SPPoint](#)  
[SPPolygon](#)

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)  
[CcDispatchMessage](#)  
[CcNotifyDetour](#)  
[CcOperatorMessage](#)  
[CcPTVTrips](#)  
[CcVehicleShutdownAck](#)  
[CcVehicleStartupAck](#)  
[CptCommandTimeUpdate](#)  
[CptSubErrorNotice](#)

[FcFareLoadData](#)  
[FcUnloadData](#)  
[ObNotifyMenu](#)  
[ObReportHealth](#)  
[PiAckSubscriptionUpdate](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiDirections](#)  
[PiNearestStopList](#)  
[PiProfile](#)  
[PiReportAckProfileUpdate](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)

## B.57 Data Frame CPTAgreementIden {CPT 1043}

### Use:

Uniquely identify an agreement whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTAgreementIden ::= SEQUENCE {
    id                      CPT-AgreementID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-AgreementName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTStoppointAgreement](#)

**No messages were identified that directly use this data frame**

## B.58 Data Frame CPTAirConditionerIden {CPT 1028}

### Use:

Identifies an air conditioner unit, usually designed for installation on a bus or rail vehicle.

### Remarks:

Normally the serial number will be stored in the id field. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTAirConditionerIden ::= SEQUENCE {
    id                      CPT-AirConditionerID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL,
    serNum                  CPT-Footnote OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTPTVehicle](#)

No messages were identified that directly use this data frame

## B.59 Data Frame CPTAssignedContractor {CPT 1009}

### Use:

Identify a contractor assigned to a work order or other task.

### Remarks:

### ASN1:

```
CPTAssignedContractor ::= SEQUENCE {
    company                 CPT-CompanyName OPTIONAL,
    firstName               CPT-PersonFirstName OPTIONAL,
    middleName              CPT-PersonMiddleName OPTIONAL,
    lastName                CPT-PersonLastName OPTIONAL,
    phone                   CPT-EmployeeTelephone OPTIONAL,
    role                    CPT-Footnote OPTIONAL,
    roleLangs               CPTAdditionalLanguageContents OPTIONAL,
    ...  -- # LOCAL_CONTENT
```

}

**The following data frames directly use this data frame:**

[CCWOUpdate](#)  
[CCWorkOrder](#)

**No messages were identified that directly use this data frame**

## B.60 Data Frame CPTAssignedEmployee {CPT 1008}

**Use:**

Identify an employee assigned to a workorder or other task.

**Remarks:**

**ASN1:**

```
CPTAssignedEmployee ::= SEQUENCE {
    employee                  CPTEmployeeIden OPTIONAL,
    phone                     CPT-EmployeeTelephone OPTIONAL,
    role                      CPT-Footnote OPTIONAL,
    roleLangs                 CPTAdditionalLanguageContents OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[CCWOUpdate](#)  
[CCWorkOrder](#)

**No messages were identified that directly use this data frame**

## B.61 Data Frame CPTChannel {CPT 1035}

### Use:

The description of a channel used by a radio system in a public transportation system.

### Remarks:

### ASN1:

```
CPTChannel ::= SEQUENCE {
    channelID          CPT-ChannelID,
    channelName        CPT-ChannelName OPTIONAL,
    channelNameLangs   CPTAdditionalLanguageContents OPTIONAL,
    inboundFreq        CPT-Frequency OPTIONAL,
    outboundFreq       CPT-Frequency OPTIONAL,
    channelBand        CPT-ChannelBand OPTIONAL,
    attributes         SEQUENCE (SIZE(1..10)) OF CPT-ChannelAttribute OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTRadioZone](#)

No messages were identified that directly use this data frame

## B.62 Data Frame CPTConstructionPermit {CPT 1045}

### Use:

Track Construction Permits

### Remarks:

### ASN1:

```
CPTConstructionPermit ::= SEQUENCE {
    permitId            CPTConstructionPermitIden,
    permitFilename      CPT-Footnote OPTIONAL,
    permitText          CPT-Footnote OPTIONAL,
    permitTextLangs     CPTAdditionalLanguageContents OPTIONAL,
    comment             CPT-Footnote OPTIONAL,
    commentLangs        CPTAdditionalLanguageContents OPTIONAL,
    location            LRMS.GeoLocation OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTStoppoint](#)

**No messages were identified that directly use this data frame**

## B.63 Data Frame CPTConstructionPermitIden {CPT 1041}

**Use:**

Uniquely identify a construction permit whether in a single, or multi agency environment.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CPTConstructionPermitIden ::= SEQUENCE {
    id                      CPT-ConstructionPermitID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-ConstructionPermitName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTConstructionPermit](#)

**No messages were identified that directly use this data frame**

## B.64 Data Frame CPTEmployee {CPT 1036}

**Use:**

Information related to a transit property's employee. (Record of an employee's personnel information.)

**Remarks:**

Work-week-days are the day tuples that an employee works.

**ASN1:**

```
CPTEmployee ::= SEQUENCE {
    employee                CPTEmployeeIden,
    metadata                 CPTRowMetaData OPTIONAL,
    employeeTel              CPT-EmployeeTelephone OPTIONAL,
    homeAddress              LRMS.AddressPoint OPTIONAL,
    emergencyContactFirst    CPT-PersonFirstName OPTIONAL,
    emergencyContactFirstLangs CPTAdditionalLanguageContents OPTIONAL,
```

```

emergencyContactMiddle      CPT-PersonMiddleName OPTIONAL,
emergencyContactMiddleLangs CPTAdditionalLanguageContents OPTIONAL,
emergencyContactLast        CPT-PersonLastName OPTIONAL,
emergencyContactLastLangs  CPTAdditionalLanguageContents OPTIONAL,
emergencyTelephone          CPT-PhoneNumber OPTIONAL,
emailAddress                CPT-Footnote OPTIONAL,
pageNumber                  CPT-PhoneNumber OPTIONAL,
cellPhoneNumber             CPT-PhoneNumber OPTIONAL,
workPhone                   CPT-PhoneNumber OPTIONAL,
dateHired                   CPT-Date OPTIONAL,
dateSeniority               CPT-Date OPTIONAL,
dateTerminated              CPT-Date OPTIONAL,
gender                      CPT-Sex OPTIONAL,
birthdate                   CPT-Date OPTIONAL,
facility                     CPTTransitFacilityIden OPTIONAL,
organization                 CPTOrganizationalUnitIden OPTIONAL,
jobCategory                 CPT-EmplJobCat OPTIONAL,
jobCategoryDesc              CPT-EmplJobCatDesc OPTIONAL,
jobCategoryDescLangs        CPTAdditionalLanguageContents OPTIONAL,
work-week-days              SEQUENCE (SIZE(1..25)) OF SCH-DayType OPTIONAL,
comment                     CPT-Footnote OPTIONAL,
commentLangs                CPTAdditionalLanguageContents OPTIONAL,
operatorBase                CPTOperatorBaseIden OPTIONAL,
...
... -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CptEmployeeList](#)

## B.65 Data Frame CPTEmployeeIden {CPT 1020}

**Use:**

To uniquely identify an employee in a single or multiagency environment.

**Remarks:**

The only occasion in which this structure is to be used without an employee-id present, is when the frame is used to specify the scope of a query, and the employee's ID number is unknown. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```

CPTEmployeeIden ::= SEQUENCE {
  id                      CPT-EmployeeID,
  ag                      CPT-AgencyID OPTIONAL,
  name                    IM-PersonIdentifier OPTIONAL,
  nameLangs               CPTAdditionalLanguageContents OPTIONAL,
  desig                  CPT-GenericDesignator OPTIONAL,
  desigLangs              CPTAdditionalLanguageContents OPTIONAL,
}

```

```
    agDesig          CPT-AgencyDesignator OPTIONAL,  
    agdesigLangs   CPTAdditionalLanguageContents OPTIONAL,  
    ssn             CPT-SSN OPTIONAL,  
    firstName       CPT-PersonFirstName OPTIONAL,  
    firstNameLangs CPTAdditionalLanguageContents OPTIONAL,  
    middleName      CPT-PersonMiddleName OPTIONAL,  
    middleNameLangs CPTAdditionalLanguageContents OPTIONAL,  
    lastName        CPT-PersonLastName OPTIONAL,  
    lastNameLangs  CPTAdditionalLanguageContents OPTIONAL,  
    userLoginName   CPT-Footnote OPTIONAL  
}
```

The following data frames directly use this data frame:

[CCWorkOrder](#)  
[CPTAssignedEmployee](#)  
[CPTEmployee](#)  
[FCCashBoxReconciliation](#)  
[IMIncident](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[SCHOperatorAssignment](#)  
[SCHTripDetailInfo](#)

The following messages directly use this data frame:

[CcPTVInspection](#)  
[CcPTVInspectionAck](#)  
[CcReportPullIns](#)  
[CcReportPullInsAck](#)  
[CcReportPullOuts](#)  
[CcReportPullOutsAck](#)  
[CcReportTrainInitialization](#)  
[CcReportTrainTermination](#)  
[CcWorkOrderAssign](#)  
[CcWorkOrderAssignAck](#)  
[CcWorkOrderUpdate](#)  
[CcWorkOrderUpdateAck](#)  
[CptEmployeeList](#)  
[CptEmployeeListSub](#)  
[ImIncidentHistory](#)  
[ImIncidentHistorySub](#)  
[ImIncidentList](#)  
[ImIncidentListSub](#)  
[ImIncidentUpdate](#)  
[ImInitialIncidentReport](#)  
[ImInitialReportAck](#)  
[ImUpdateAck](#)

## B.66 Data Frame CPTEngineIden {CPT 1029}

### Use:

Identifies an engine or motor for a public transit vehicle. May be used to identify traction motors on rail vehicles.

### Remarks:

Normally the serial number will be stored in the id field. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTEngineIden ::= SEQUENCE {
    id                      CPT-EngineID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLang               CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL,
    serNum                  CPT-Footnote OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTPTVehicle](#)

No messages were identified that directly use this data frame

## B.67 Data Frame CPTFacilityEntranceIden {CPT 1042}

### Use:

Uniquely identify a facility entrance whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTFacilityEntranceIden ::= SEQUENCE {
    id                      CPT-FacilityEntranceID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-FacilityEntranceName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
```

```
    agdesig          CPT-AgencyDesignator OPTIONAL,  
    agdesigLangs    CPTAdditionalLanguageContents OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[CPTStoppointAgreement](#)  
[CPTStoppointEntrance](#)

**No messages were identified that directly use this data frame**

## B.68 Data Frame CPTFileApplicability {CPT 1005}

### Use:

Specify the scope of applicability for a file or data conveyed in a subscription, push, load or unload dialog or in a file transfer.

### Remarks:

Only one applicable field should be used to filter by applicability.

### ASN1:

```
CPTFileApplicability ::= SEQUENCE {  
    applicable-routes      SEQUENCE (SIZE(1..200)) OF SCHRouteIden OPTIONAL,  
    applicable-ptvs        SEQUENCE (SIZE(1..20000)) OF CPTVehicleIden OPTIONAL,  
    applicable-stops       SEQUENCE (SIZE(1..20000)) OF CPTStoppointIden OPTIONAL,  
    applicable-facilities  SEQUENCE (SIZE(1..10000)) OF CPTTransitFacilityIden OPTIONAL,  
    applicable-garages     SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,  
    applicable-agencies    SEQUENCE (SIZE(1..1000)) OF CPT-AgencyID OPTIONAL,  
    applicable-fleet-subsets SEQUENCE (SIZE(1..100)) OF CPT-FleetSubset OPTIONAL,  
    applicable-stoppoint-subsets SEQUENCE (SIZE(1..100)) OF CPT-StoppointSubset OPTIONAL,  
    applicable-fare-subsets SEQUENCE (SIZE(1..100)) OF FC-FareEquipmentSubset OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[CPTLoadFileHeader](#)  
[CPTPushHeader](#)  
[CPTSubscriptionHeader](#)  
[CPTUnloadFileHeader](#)  
[PIAgencyStaticFile](#)

**No messages were identified that directly use this data frame**

## B.69 Data Frame CPTFleetSubsetGroup {CPT 1006}

### Use:

Define an arbitrary, agency defined grouping of vehicles. The group may share a home base garage, common piece of onboard electronics, be the same vehicle model etc. A PTV can belong to more than one group (e.g. "2004 Orions", "Orbital model J VLY", "Brookline Garage").

### Remarks:

### ASN1:

```
CPTFleetSubsetGroup ::= SEQUENCE {
    group-id          CPT-FleetSubset,
    metadata           CPTRowMetaData OPTIONAL,
    group-name         CPT-GroupName,
    group-nameLangs   CPTAdditionalLanguageContents OPTIONAL,
    group-garage       CPTTransitFacilityIden OPTIONAL, -- only if group shares garage
    group-members      SEQUENCE (SIZE(1..100000)) OF CPTVehicleIden,
    group-memo         CPT-Footnote OPTIONAL,
    group-memoLangs   CPTAdditionalLanguageContents OPTIONAL
}
```

No data frames were identified that directly use this data frame

### The following messages directly use this data frame:

[CptFleetSubsets](#)

## B.70 Data Frame CPTGenericIden {CPT 1024}

### Use:

Provides a generic identifier that can be translated to a specific TCIP Iden data frame (e.g. CPTStoppointIden, SCHTimepointIden, CPTFacilityIden).

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTGenericIden ::= SEQUENCE {
    id                CPT-GenericID,
    ag                CPT-AgencyID OPTIONAL,
    name              CPT-GenericName OPTIONAL,
    nameLangs         CPTAdditionalLanguageContents OPTIONAL,
    desig             CPT-GenericDesignator OPTIONAL,
```

```

desigLangs           CPTAdditionalLanguageContents OPTIONAL,
agdesig              CPT-AgencyDesignator OPTIONAL,
agdesigLangs         CPTAdditionalLanguageContents OPTIONAL,
name1                CPT-GenericName OPTIONAL,
name1Langs           CPTAdditionalLanguageContents OPTIONAL,
name2                CPT-GenericName OPTIONAL,
name2Langs           CPTAdditionalLanguageContents OPTIONAL,
name3                CPT-GenericName OPTIONAL,
name3Langs           CPTAdditionalLanguageContents OPTIONAL,
name4                CPT-GenericName OPTIONAL,
name4Langs           CPTAdditionalLanguageContents OPTIONAL,
name5                CPT-GenericName OPTIONAL,
name5Langs           CPTAdditionalLanguageContents OPTIONAL,
name6                CPT-GenericName OPTIONAL,
name6Langs           CPTAdditionalLanguageContents OPTIONAL,
name7                CPT-GenericName OPTIONAL,
name7Langs           CPTAdditionalLanguageContents OPTIONAL,
name8                CPT-GenericName OPTIONAL,
name8Langs           CPTAdditionalLanguageContents OPTIONAL,
numeric2             CPT-GenericCounter OPTIONAL,
specific-type        CPT-FeatureType OPTIONAL
}

```

**The following data frames directly use this data frame:**

[IMIncidentIden](#)  
[SPBoundaryContent](#)  
[SPFeature](#)

**The following messages directly use this data frame:**

[CcGISFile](#)  
[PiItineraryMap](#)  
[PiItineraryMapSub](#)  
[SpGIS](#)  
[SpGISPush](#)

## B.71 Data Frame CPTIntersectionIden {CPT 1023}

### Use:

Provides a globally unique identifier for an intersection. If agency-specific numbering is used, the identifier is still globally unique based on the agency-id field.

### Remarks:

If this frame is used to identify an intersection for use with transit signal priority, the tmdd-id field is required as the TMDD identifier is used with priority requests. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```

CPTIntersectionIden ::= SEQUENCE {
  id                  TSP-TMS-IntersectionID,
  ag                 CPT-AgencyID OPTIONAL,
}

```

```

name          CPT-GenericName OPTIONAL,
nameLangs    CPTAdditionalLanguageContents OPTIONAL,
desig        CPT-GenericDesignator OPTIONAL,
desigLangs   CPTAdditionalLanguageContents OPTIONAL,
agdesig      CPT-AgencyDesignator OPTIONAL,
agdesigLangs CPTAdditionalLanguageContents OPTIONAL,
tmdd-id      TMDD.Intersection-identifier OPTIONAL
}

}

```

**The following data frames directly use this data frame:**

[TSPAllowedIntersection](#)  
[TSPEventLogEntry](#)  
[TSPIntersectionEntry](#)  
[TSPScenario5Intersection](#)  
[TSPScheduleEntry](#)  
[TSPTmsIntersectionParam](#)

**The following messages directly use this data frame:**

[ScpEventLog](#)  
[ScpEventLogSub](#)  
[TspBusinessRules](#)  
[TspPRGInputsCC](#)  
[TspPRGInputsCCSub](#)

## B.72 Data Frame CPTLanguageList {CPT 1026}

### Use:

Defines the default language to be used for string text information in a message, and specifies any additional languages for which content will be provided in the message. Languages are specified using ISO/IEC 639-4.

### Remarks:

In creating a message or frame the primary language content goes in the field preceding the CPTAdditionalLanguageContents frame. Content in additional languages goes into entries in the corresponding CPTAdditionalLanguageContents frame. If a CPTAdditionalLanguageContents frame is included, the language contents in the CPTAdditionalLanguageContents frame must be included in exactly the same order as the additional languages are specified in the CPTLanguageList near the beginning of the enclosing message. It is an error for a CPTAdditionalLanguageList frame to be included in a message containing a different number of content entries than the number of additional languages specified in the CPTLanguageList frame. It is not an error to omit the CPTAdditionalLanguageContents frame in any context.

### ASN1:

```

CPTLanguageList ::= SEQUENCE {
  primaryLang      CPT-LanguageIdentifier,
  addlLangs        SEQUENCE (SIZE(1..50)) OF CPT-LanguageIdentifier OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[CcAnnouncementInfo](#)  
[CcCancelTrips](#)  
[CcCannedMessageText](#)  
[CcChangeAssignments](#)  
[CcChangeAssignmentsAck](#)  
[CcConnProtAck](#)  
[CcConnProtAppr](#)  
[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcDispatchMessage](#)  
[CcDispatchMessageAck](#)  
[CcFleetHealthAlarm](#)  
[CcFleetHealthAlarmSub](#)  
[CcFleetLocation](#)  
[CcFleetLocationSub](#)  
[CcFleetMechanicalData](#)  
[CcFleetMechanicalDataSub](#)  
[CcFleetPassengerData](#)  
[CcFleetPassengerDataSub](#)  
[CcGISFile](#)  
[CcLocationReport](#)  
[CcManualAlarm](#)  
[CcNotifyDetour](#)  
[CcOnboardConfigurationData](#)  
[CcOnboardSoftware](#)  
[CcOpenWorkOrderAck](#)  
[CcOpenWorkorder](#)  
[CcOperatingData](#)  
[CcOperatingDataSub](#)  
[CcOperatorCallRequest](#)  
[CcOperatorMessage](#)  
[CcOperatorMessageAck](#)  
[CcOperatorSignOff](#)  
[CcOperatorSignOffAck](#)  
[CcOperatorSignOn](#)  
[CcOperatorSignOnAck](#)  
[CcPTVAdherence](#)  
[CcPTVAdherenceSub](#)  
[CcPTVAlarmLimits](#)  
[CcPTVImpairment](#)  
[CcPTVImpairmentAck](#)  
[CcPTVPerformanceData](#)  
[CcPTVTripResponse](#)  
[CcPTVTrips](#)  
[CcPTVehicleAlarm](#)  
[CcPTVehicleAlarmSub](#)  
[CcPTVehicleParameter](#)  
[CcPassengerAlarm](#)  
[CcPollParameters](#)  
[CcPollResults](#)  
[CcRemotePTVDisable](#)  
[CcRemotePTVDisableAck](#)  
[CcRemotePTVEnable](#)  
[CcRemotePTVEnableAck](#)  
[CcReportPullIns](#)  
[CcReportPullInsAck](#)  
[CcReportPullOuts](#)

[CcReportPullOutsAck](#)  
[CcReportServiceEvent](#)  
[CcReportServiceEventAck](#)  
[CcTravelerAlarm](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogPush](#)  
[CcTravelerRequestLogSub](#)  
[CcTriggerCannedAnnouncement](#)  
[CcUnloadImages](#)  
[CcVehicleShutdownAck](#)  
[CcVehicleShutdownReport](#)  
[CcVehicleStartupAck](#)  
[CcVehicleStartupReport](#)  
[CcVideoImages](#)  
[CcVideoImagesSub](#)  
[CcWheelchairAck](#)  
[CcWheelchairAppr](#)  
[CcWheelchairDeny](#)  
[CcWheelchairPickup](#)  
[CcWheelchairReq](#)  
[CcWorkOrderAssign](#)  
[CcWorkOrderAssignAck](#)  
[CcWorkOrderUpdate](#)  
[CcWorkOrderUpdateAck](#)  
[CptCommandTimeUpdate](#)  
[CptCurrentVersionNotice](#)  
[CptEmployeeList](#)  
[CptEmployeeListSub](#)  
[CptFilesToUnload](#)  
[CptFleetSubsets](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptLoadControl](#)  
[CptOnboardVersionNotice](#)  
[CptShelterList](#)  
[CptShelterListSub](#)  
[CptStoppointList](#)  
[CptStoppointListSub](#)  
[CptStoppointSubsets](#)  
[CptStoppointsFile](#)  
[CptSubErrorNotice](#)  
[CptTransferClusterList](#)  
[CptTransferClusterListSub](#)  
[CptTransitFacilities](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[CptVehicleInventoryList](#)  
[CptVehicleInventoryListSub](#)  
[FcEquipmentSubsets](#)  
[FcFareDataPush](#)  
[FcFareHealth](#)  
[FcFareHealthSub](#)  
[FcFareLoadData](#)  
[FcFareZonePush](#)  
[FcFareZones](#)  
[FcPassengerData](#)  
[FcPassengerDataSub](#)  
[FcReportCashboxEvent](#)  
[FcReportReconcileCashbox](#)  
[FcReportReconcileCashboxAck](#)  
[FcReportValidationErrors](#)  
[FcReportValidationErrorsAck](#)

[FcReportVaultEvent](#)  
[FcRevenueData](#)  
[FcRevenueDataSub](#)  
[FcUnloadData](#)  
[ImAlarmCancel](#)  
[ImCommandIncidentResponse](#)  
[ImIncidentHistory](#)  
[ImIncidentHistorySub](#)  
[ImIncidentList](#)  
[ImIncidentListSub](#)  
[ImIncidentUpdate](#)  
[ImInitialIncidentReport](#)  
[ImInitialReportAck](#)  
[ImSilentAlarm](#)  
[ImSilentAlarmAck](#)  
[ImSilentAlarmClose](#)  
[ImUpdateAck](#)  
[ObLocation](#)  
[ObNotifyMenu](#)  
[ObNotifyTripStart](#)  
[ObPassengerCount](#)  
[ObReportHealth](#)  
[ObSignon](#)  
[ObSignonSub](#)  
[PiAccessibilityList](#)  
[PiAccessibilityListSub](#)  
[PiAckNewProfile](#)  
[PiAckSubscriptionUpdate](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiAmenitiesList](#)  
[PiAmenitiesListSub](#)  
[PiAnnouncementsList](#)  
[PiAnnouncementsListSub](#)  
[PiDirections](#)  
[PiDirectionsSub](#)  
[PiFoundItems](#)  
[PiFoundItemsSub](#)  
[PiGTFSData](#)  
[PiGTFSDataSub](#)  
[PiGeoZoneList](#)  
[PiGeoZoneListSub](#)  
[PiItineraryFare](#)  
[PiItineraryFareSub](#)  
[PiItineraryMap](#)  
[PiItineraryMapSub](#)  
[PiLandmarksList](#)  
[PiLandmarksListSub](#)  
[PiLocationMap](#)  
[PiLocationMapSub](#)  
[PiMailinglist](#)  
[PiMailinglistSub](#)  
[PiNearestStopList](#)  
[PiNearestStopListSub](#)  
[PiPatternService](#)  
[PiPatternServiceSub](#)  
[PiProfile](#)  
[PiProfileSub](#)  
[PiPushAgencyFiles](#)  
[PiPushTextTimetable](#)

[PiReportAckProfileUpdate](#)  
[PiReportFoundItems](#)  
[PiReportLostItems](#)  
[PiReportNewProfile](#)  
[PiReportProfileUpdate](#)  
[PiReportSubscriptionUpdate](#)  
[PiRouteList](#)  
[PiRouteListSub](#)  
[PiSendMailing](#)  
[PiServiceBulletinsList](#)  
[PiServiceBulletinsListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)  
[PiServiceStatus](#)  
[PiServiceStatusSub](#)  
[PiStopPointETA](#)  
[PiStopPointETASub](#)  
[PiStoppointParking](#)  
[PiStoppointParkingSub](#)  
[PiStoppointPatterns](#)  
[PiStoppointPatternsSub](#)  
[PiTextTimetable](#)  
[PiTextTimetableSub](#)  
[PiTripItineraryList](#)  
[PiTripItineraryListSub](#)  
[SchActualRunningTimes](#)  
[SchActualRunningTimesSub](#)  
[SchBlockScheduleFile](#)  
[SchBlockScheduleList](#)  
[SchBlockScheduleListSub](#)  
[SchBlockSubsets](#)  
[SchCommandScheduleChange](#)  
[SchCommandScheduleChangeResponse](#)  
[SchMasterScheduleVersion](#)  
[SchMasterScheduleVersionSub](#)  
[SchOperatorAssignmentFile](#)  
[SchOperatorAssignmentList](#)  
[SchOperatorAssignmentListSub](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPatternListSub](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchPushBlockSchedule](#)  
[SchPushMasterScheduleVersion](#)  
[SchPushOperatorAssignments](#)  
[SchPushPatterns](#)  
[SchPushRoster](#)  
[SchPushRouteSchedule](#)  
[SchPushRunSchedule](#)  
[SchPushRunningTimes](#)  
[SchPushTimepoints](#)  
[SchPushVehicleAssignments](#)  
[SchReportValidationErrors](#)  
[SchReportValidationErrorsAck](#)  
[SchRosterList](#)  
[SchRosterListSub](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleFile](#)  
[SchRouteScheduleSub](#)

[SchRunScheduleFile](#)  
[SchRunScheduleList](#)  
[SchRunScheduleListSub](#)  
[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SchStopServiceList](#)  
[SchStopServiceListSub](#)  
[SchTimepointList](#)  
[SchTimepointListSub](#)  
[SchTimepointsFile](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)  
[SchUnassignedOperatorList](#)  
[SchUnassignedOperatorListSub](#)  
[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)  
[SchVehicleAssignmentFile](#)  
[SchVehicleAssignmentList](#)  
[SchVehicleAssignmentListSub](#)  
[ScpEventLog](#)  
[ScpEventLogSub](#)  
[SpGIS](#)  
[SpGISPush](#)  
[SpGISSub](#)  
[SpGeolocationData](#)  
[SpLocationConversion](#)  
[SpLocationConversionSub](#)  
[SpMapImage](#)  
[SpMapImageSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)  
[TspBusinessRules](#)  
[TspEventLogUnload](#)  
[TspPRGInputsCC](#)  
[TspPRGInputsCCSub](#)

## B.73 Data Frame CPTLoadFileHeader {CPT 1002}

### Use:

Provide Identification information for files to be transferred using load dialogs.

### Remarks:

The component - fields provide alternative mechanisms for identifying the onboard or field component, or to the proxy for those components (e.g. Garage Server). The presence of the updates-since field indicates the at the file contains updates (only) since the indicated datetime. The updated-datetime indicates the information provided includes all updates through the specified datetime.

### ASN1:

```
CPTLoadFileHeader ::= SEQUENCE {
    vehicle                  CPTVehicleIden OPTIONAL,
    component-identifier     OB-MID OPTIONAL,
    component-IP              CPT-IPAddress OPTIONAL,
    component-port            CPT-UDP-TCP-PortNumber OPTIONAL,
    stoppoint                 CPTStoppointIden OPTIONAL,
    field-address             CPT-IPAddress OPTIONAL,
```

```
field-port          CPT-UDP-TCP-PortNumber OPTIONAL,  
file-identifier    CPT-FileIdentifier,  
version-number     CPT-FileVersion OPTIONAL,  
sched-version      SCH-TimetableVersionID OPTIONAL,  
effective-datetime CPT-DateTime OPTIONAL,  
updates-since      CPT-DateTime OPTIONAL,  
updated-datetime   CPT-DateTime,  
file-size          CPT-FileSize,  
applicability       CPTFileApplicability OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)  
[CcCannedMessageText](#)  
[CcGISfile](#)  
[CcOnboardConfigurationData](#)  
[CcOnboardSoftware](#)  
[CcPTVAlarmLimits](#)  
[CptBadLoadRequest](#)  
[CptCurrentVersionNotice](#)  
[CptLoadControl](#)  
[CptOnboardVersionNotice](#)  
[CptStoppointsFile](#)  
[FcFareLoadData](#)  
[PiGTFSfile](#)  
[SchBlockScheduleFile](#)  
[SchCalendarFile](#)  
[SchEventChangeFile](#)  
[SchOperatorAssignmentFile](#)  
[SchPatternFile](#)  
[SchRouteScheduleFile](#)  
[SchRunScheduleFile](#)  
[SchTimepointsFile](#)  
[SchVehicleAssignmentFile](#)  
[TspBusinessRules](#)

## B.74 Data Frame CPTNeededSupplies {CPT 1010}

### Use:

Identify supplies (parts/materials) needed to complete a work order or other task.

### Remarks:

### ASN1:

```
CPTNeededSupplies ::= SEQUENCE {
    description           CPT-Footnote OPTIONAL,
    descriptionLangs     CPTAdditionalLanguageContents OPTIONAL,
    requests              SEQUENCE (SIZE(1..100)) OF CPT-PurchaseReqNumber OPTIONAL,
    status                CPT-Footnote OPTIONAL,
    statusLangs           CPTAdditionalLanguageContents OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[CCWorkOrder](#)

No messages were identified that directly use this data frame

## B.75 Data Frame CPTOperatorBaseIden {CPT 1019}

### Use:

Uniquely identify an operator's home base whether in a single, or multi agency environment.

### Remarks:

This data frame is currently not used in TCIP. Operator bases are identified in TCIP messages and data frames using the CPTTransitFacilityIden data frame. This frame, along with CPT-OperatorBaseID and CPTOperatorBaseName are candidates for deletion from future TCIP versions. All comparisons of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTOperatorBaseIden ::= SEQUENCE {
    id                  CPT-OperatorBaseID,
    ag                 CPT-AgencyID OPTIONAL,
    name               CPT-OperatorBaseName OPTIONAL,
    nameLangs          CPTAdditionalLanguageContents OPTIONAL,
    desig              CPT-GenericDesignator OPTIONAL,
    desigLangs         CPTAdditionalLanguageContents OPTIONAL,
    agdesig            CPT-AgencyDesignator OPTIONAL,
    agdesigLangs       CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCLogOnOperator](#)  
[CPTEmployee](#)  
[SCHOperatorAssignment](#)  
[SCHUnassignedOperator](#)

**The following messages directly use this data frame:**

[SchOperatorAssignmentList](#)  
[SchOperatorAssignmentListSub](#)  
[SchRosterList](#)  
[SchRosterListSub](#)  
[SchRunScheduleList](#)  
[SchRunScheduleListSub](#)  
[SchUnassignedOperatorList](#)

## B.76 Data Frame CPTOperatorIden {CPT 1013}

**Use:**

Uniquely identify a PTV operator whether in a single, or multi agency environment.

**Remarks:**

**ASN1:**

```
CPTOperatorIden ::= SEQUENCE {
    id                      CPT-OperatorID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    IM-PersonIdentifier OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL,
    ssn                     CPT-SSN OPTIONAL,
    firstName               CPT-PersonFirstName OPTIONAL,
    firstNameLangs          CPTAdditionalLanguageContents OPTIONAL,
    middleName              CPT-PersonMiddleName OPTIONAL,
    middleNameLangs         CPTAdditionalLanguageContents OPTIONAL,
    lastName                CPT-PersonLastName OPTIONAL,
    lastNameLangs           CPTAdditionalLanguageContents OPTIONAL,
    userLoginName           CPT-Footnote OPTIONAL,
    employee-id             CPT-EmployeeID OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCEventRecord](#)

[CCHistoricalAdherenceRecord](#)  
[CCLogOffOperator](#)  
[CCLogOnOperator](#)  
[CCOperatorAssignmentChange](#)  
[CCPTVLocation](#)  
[CCPTVTripData](#)  
[CCSignOnOff](#)  
[FCFareboxAccessPermission](#)  
[FCValidationErrors](#)  
[IMPTVehicleInvolved](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[SCHOperatorAssignment](#)  
[SCHPullInOutInfo](#)  
[SCHRoster](#)  
[SCHTripDetailInfo](#)  
[SCHUnassignedOperator](#)  
[SCHVehicleAssignment](#)  
[TSPStatus](#)

**The following messages directly use this data frame:**

[CcLocationReport](#)  
[CcOperatorSignOffAck](#)  
[CcOperatorSignOnAck](#)  
[CcReportTrainInitialization](#)  
[CcReportTrainTermination](#)  
[ImSilentAlarm](#)  
[SchOperatorAssignmentList](#)  
[SchOperatorAssignmentListSub](#)  
[SchRosterList](#)  
[SchRosterListSub](#)  
[SchUnassignedOperatorList](#)  
[SchUnassignedOperatorListSub](#)

## B.77 Data Frame CPTOrganizationalUnitIden {CPT 1018}

**Use:**

Uniquely identify an organizational unit whether in a single, or multi agency environment.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CPTOrganizationalUnitIden ::= SEQUENCE {
    id                      CPT-OrgUnitID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-OrgUnitName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
```

```

    agdesigLangs          CPTAdditionalLanguageContents OPTIONAL
}

```

**The following data frames directly use this data frame:**

[CCLogOnOperator](#)  
[CPTEmployee](#)  
[SCHVehicleAssignment](#)

**The following messages directly use this data frame:**

[CptEmployeeList](#)  
[CptEmployeeListSub](#)

## B.78 Data Frame CPTPTVehicle {CPT 1037}

### Use:

The characteristics of vehicles in a transit fleet.

### Remarks:

The ieeeData field may be used to convey data including vehicle restrictions, about the vehicle in a format recognized by the public safety community. The itisCode field may be used to convey miscellaneous information about the vehicle expressed as ITIS code values.

The svcAvail field, if present, indicates whether the vehicle is ready for service, but does not indicate whether the vehicle currently operating in revenue service. The svcAvailTime field, if present, indicates the date time when the svcAvail was last updated. The lastFuel field, if present, indicates the last date time the vehicle is known to have been fueled. A CPTPTVehicle can be a rail car.

### ASN1:

```

CPTPTVehicle ::= SEQUENCE {
    vehicle          CPTVehicleIden,
    airConditionerIDs   SEQUENCE (SIZE(1..4)) OF CPTAirConditionerIden OPTIONAL,
    airConditionerCount  CPT-GenericCounter OPTIONAL,
    metadata          CPTRowMeta OPTIONAL,
    seating            CPT-PTVSeatingCapacity OPTIONAL,
    mode               CPT-Mode OPTIONAL,
    standing           CPT-PTVStandingCapacity OPTIONAL,
    wheelChair         CPT-PTWheelChairCapacity OPTIONAL,
    vehicleType        CPT-PTVehicleType OPTIONAL,
    vehicleAttributes  SEQUENCE (SIZE(1..20)) OF CPT-PTVehicleAttribute OPTIONAL,
    manufacturer       CPT-Manufacturer OPTIONAL,
    manufacturerLangs CPTAdditionalLanguageContents OPTIONAL,
    transmissionCount  CPT-GenericCounter OPTIONAL,
    transmissionIDs   SEQUENCE (SIZE(1..12)) OF CPTTransmissionIden OPTIONAL,
    model              CPT-Model OPTIONAL,
    modelLangs         CPTAdditionalLanguageContents OPTIONAL,
    engineIDs          SEQUENCE (SIZE(1..12)) OF CPTEngineIden OPTIONAL,
    engineCount         CPT-GenericCounter OPTIONAL,
    aEndTruckID        CPTTruckIden OPTIONAL,
    bEndTruckID        CPTTruckIden OPTIONAL,
    cTruckID           CPTTruckIden OPTIONAL,
    modelYear          CPT-VehicleModelYear,
    rehabDate          CPT-Date OPTIONAL,
}

```

```

propulsionContainerCount   CPT-GenericCounter OPTIONAL,
registration               CPT-Footnote OPTIONAL,
registrationLangs          CPTAdditionalLanguageContents OPTIONAL,
components                 SEQUENCE (SIZE(1..100)) OF OB-MID OPTIONAL,
vehTypeDesc                CPT-PTVehicleTypeDesc OPTIONAL,
vehTypeDescLangs           CPTAdditionalLanguageContents OPTIONAL,
ieeeData                   IM.VehicleSummary OPTIONAL,
itisCodes                  SEQUENCE (SIZE(1..20)) OF ITIS.ITIScodes OPTIONAL,
assignedGarage              CPTTransitFacilityIden OPTIONAL,
garageAssignmentDate       CPT-DateTime OPTIONAL,
svcAvail                   CPT-Boolean OPTIONAL,
svcAvailTime               CPT-DateTime OPTIONAL,
lastFuel                    CPT-DateTime OPTIONAL,
doorCount                  CPT-GenericCounter OPTIONAL,
axleCount                  CPT-GenericCounter OPTIONAL,
vehicleIP                  CPT-IPAddress OPTIONAL,
...
... -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CptVehicleInventoryList](#)

## B.79 Data Frame CPTPTVehicleBase {CPT 1038}

**Use:**

Identifies the location to which the transit vehicle is assigned.

**Remarks:**

**ASN1:**

```

CPTPTVehicleBase ::= SEQUENCE {
  facility           CPTTransitFacilityIden,
  vehType            CPT-PTVehicleType OPTIONAL,
  vehBaseCapacity    CPT-PTVehicleBaseCapacity OPTIONAL,
  footnote           CPT-Footnote OPTIONAL,
  footnoteLangs      CPTAdditionalLanguageContents OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**No messages were identified that directly use this data frame**

## B.80 Data Frame CPTParkingSpace {CPT 1011}

### Use:

Identify a parking spot for a PTV-generally at a garage.

### Remarks:

### ASN1:

```
CPTParkingSpace ::= SEQUENCE {
    park-lot          CPT-GenericCounter OPTIONAL,
    park-level        CPT-GenericCounter OPTIONAL,
    park-row          CPT-GenericCounter OPTIONAL,
    park-column        CPT-GenericCounter OPTIONAL,
    park-space         CPT-GenericCounter OPTIONAL
}
```

The following data frames directly use this data frame:

[CCPullInReport](#)  
[CCPullOutReport](#)  
[SCHPullInOutInfo](#)

No messages were identified that directly use this data frame

## B.81 Data Frame CPTPhotograph {CPT 1021}

### Use:

Convey a photograph.

### Remarks:

### ASN1:

```
CPTPhotograph ::= SEQUENCE {
    photoID           CPTPhotographIden,
    filename          CPT-Footnote,
    metadata          CPTRowMetaData OPTIONAL,
    format            PI-GraphicFormat,
    photo              PI-BinaryImageData
}
```

The following data frames directly use this data frame:

[CPTStoppoint](#)

No messages were identified that directly use this data frame

## B.82 Data Frame CPTPhotographIden {CPT 1044}

### Use:

Uniquely identify a photograph whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTPhotographIden ::= SEQUENCE {
    id                      CPT-PhotographID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-PhotographName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTPhotograph](#)

No messages were identified that directly use this data frame

## B.83 Data Frame CPTPushHeader {CPT 1004}

### Use:

Provide identification information for a Push Pattern.

### Remarks:

Used to specify the type of information being pushed, its effective date, when it was last updated, and whether the information is a new file revision or an update to a previously provided file revision. If the file is a log file, the effective date indicates the beginning of the data, and updates-thru indicates the end of the data.

The correlation of a Push Message and an acknowledgement of that message is performed by matching the combination of:

distant end address,

'file-type' field, and

'effective' field

between the acknowledgement and the original message.

**ASN1:**

```
CPTPushHeader ::= SEQUENCE {
    file-type          CPT-FileIdentifier,
    effective          CPT-DateTime,
    sched-version      SCH-TimetableVersionID OPTIONAL,
    version-number     CPT-FileVersion OPTIONAL,
    source              CPT-ApplicationID,
    updates-only        CPT-Boolean,
    updates-since       CPT-DateTime OPTIONAL, -- only if above is true
    updates-thru        CPT-DateTime,
    applicability       CPTfileApplicability OPTIONAL,
    time-sent           CPT-DateTime
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcDGSPSPush](#)  
[CcTravelerRequestLogPush](#)  
[CptPushFailure](#)  
[CptPushSuccess](#)  
[FcFareDataPush](#)  
[FcFareZonePush](#)  
[PiPushAgencyFiles](#)  
[PiPushTextTimetable](#)  
[SchPushBlockSchedule](#)  
[SchPushCalendar](#)  
[SchPushMasterScheduleVersion](#)  
[SchPushOperatorAssignments](#)  
[SchPushPatterns](#)  
[SchPushRoster](#)  
[SchPushRouteSchedule](#)  
[SchPushRunSchedule](#)  
[SchPushRunningTimes](#)  
[SchPushTimepoints](#)  
[SchPushVehicleAssignments](#)  
[SpGISPush](#)  
[SpGeolocationData](#)

## B.84 Data Frame CPTRadioZone {CPT 1039}

**Use:**

The coverage area over which a radio transmitter operates.

**Remarks:**

**ASN1:**

```
CPTRadioZone ::= SEQUENCE {
    radioZone          CPT-RadioZoneID,
    channels           SEQUENCE (SIZE(1..20)) OF CPTChannel,
    zone               SPPolygon,
    comment             CPT-Footnote OPTIONAL,
    commentLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushPatterns](#)

## B.85 Data Frame CPTRowMetaData {CPT 1022}

**Use:**

Convey metadata for an instance of a data frame. While this data frame can be included in any data frame or message requiring this type of metadata, it is primarily intended for use in data frames that are used as rows in row updatable messages.

**Remarks:**

The created field can be used to define when the row data was originally created. The effective and expiration fields (if present) refer to the applicable interval for the row data. The activation and deactivation fields (if present) refer to activation and/or deactivation of the item described by the row (data frame) containing this data frame (e.g. if contained in a CPTStoppoint frame these fields convey the activation & deactivation information for the stoppoint). The updated field indicates when the data in the containing row (data frame) was last updated. The versionid field may be used to specify a version number associated with the data, such as a schedule release or other baseline associated with the row or other data. The versionID field does not affect the use of the frame in performing row updates.

**ASN1:**

```
CPTRowMetaData ::= SEQUENCE {
    versionID          CPT-GenericCounter OPTIONAL,
    created             CPT-DateTime OPTIONAL,
    effective           CPT-DateTime OPTIONAL,
```

```

    expiration           CPT-DateTime OPTIONAL,
    activation          CPT-DateTime OPTIONAL,
    deactivation         CPT-DateTime OPTIONAL,
    updated              CPT-DateTime
}

```

**The following data frames directly use this data frame:**

[CCCannedAnnouncementRecord](#)  
[CCCannedMsgDefinition](#)  
[CCDestinationSignMessage](#)  
[CCDestinationSignRule](#)  
[CCManualAlarmDefinition](#)  
[CCParameterReportRequest](#)  
[CCParameterThreshold](#)  
[CCPollControl](#)  
[CCRouteWelcomeAnnouncement](#)  
[CCStopAnnunciationRecord](#)  
[CCTakeListItemDefinition](#)  
[CPTEmployee](#)  
[CPTFleetSubsetGroup](#)  
[CPTPTVehicle](#)  
[CPTPhotograph](#)  
[CPTShelter](#)  
[CPTStoppoint](#)  
[CPTStoppointAgreement](#)  
[CPTStoppointEntrance](#)  
[CPTStoppointSubsetGroup](#)  
[CPTTransferCluster](#)  
[FCAllowedTransferRecord](#)  
[FCDayDefinition](#)  
[FCEquipmentGroup](#)  
[FCFareDefinitionRecord](#)  
[FCFareMediaPair](#)  
[FCFareboxAccessPermission](#)  
[IMIncidentInfo](#)  
[PIAmenity](#)  
[PIEventAnnouncement](#)  
[PISchedAdherenceCountdown](#)  
[PIStaticSign](#)  
[SCHBlockScheduleEntry](#)  
[SCHBlockSubsetsGroup](#)  
[SCHConsistChangeEvent](#)  
[SCHNoteInfo](#)  
[SCHOperatorAssignment](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHPatternInfo](#)  
[SCHPatternSegment](#)  
[SCHRoster](#)  
[SCHRouteVersion](#)  
[SCHRUnScheduleEntry](#)  
[SCHTimepointInfo](#)  
[SCHTransferInfo](#)  
[SCHTripInfo](#)  
[SCHVehicleAssignment](#)  
[SPFeature](#)  
[SPGISLayer](#)  
[SPStreetSeg](#)  
[TSPBoundaryEntry](#)  
[TSPIntersectionEntry](#)  
[TSPScenario5Intersection](#)

**The following messages directly use this data frame:**

[SchCommandScheduleChange](#)

## B.86 Data Frame CPTShelter {CPT 1040}

**Use:**

A physical structure which is co-located with a stop point.

**Remarks:**

**ASN1:**

```
CPTShelter ::= SEQUENCE {
    shelter                  CPTShelterIden,
    metadata                 CPTRowMetaData OPTIONAL,
    shelterType              CPT-ShelterType OPTIONAL,
    padType                  CPT-PadType OPTIONAL,
    stoppoint                CPTStoppointIden OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PINearestStop](#)

**The following messages directly use this data frame:**

[CptShelterList](#)

## B.87 Data Frame CPTShelterIden {CPT 1017}

**Use:**

Uniquely identify a shelter whether in a single, or multi agency environment.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CPTShelterIden ::= SEQUENCE {
    id                      CPT-ShelterID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-ShelterName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
```

```

desig          CPT-GenericDesignator OPTIONAL,
desigLangs    CPTAdditionalLanguageContents OPTIONAL,
agdesig       CPT-AgencyDesignator OPTIONAL,
agdesigLangs CPTAdditionalLanguageContents OPTIONAL
}

```

**The following data frames directly use this data frame:**

[CPTShelter](#)  
[CPTStoppoint](#)

**The following messages directly use this data frame:**

[CptShelterList](#)

## B.88 Data Frame CPTStoppoint {CPT 1032}

### Use:

A point where public transportation customers board or alight from a transit vehicle in revenue service.

### Remarks:

Comments bracketing groups of fields (optional location, service, facility, agency sharing, construction, signal and history information) delimit that may be included or excluded from a query in the Publish Stoppoint List Dialog.

The distance field specifies the distance from pointLocation at which a PTV should detect it is "at" the stoppoint. The minimum and maximum heading fields specify a range of headings within which the PTVs heading must fall in order to detect arrival at a stoppoint. If due north is within the allowed heading range, the value of minimum will be greater than the value of maximum (e.g. minimum = 335 degrees, and maximum = 5 degrees).

The servicingRoutes, directionOfRoutes, and modes field are used together if present. Thus if these fields are present the first servicingRoute corresponds to the first directionOfRoute, and to the first mode (if present). The presence of a servicingRoutes field does not require the presence of either the directionOfRoutes or the modes field, however. The zones field, if present, lists locally defined geographical zones within which the stoppoint falls.

The sharedStops field if present, indicates that other stops (which may have a different identifier assigned by another agency, are colocated with the stop described by this frame. If this case arises, the ownerAgencyID field may be used to specify which agency owns the stop. The otherAgencies field, if present, indicates that the listed agencies also use the stop, but do not have their own identifiers for the stop.

The stopLastMod field if present indicates the date of the last modifications to the stop facility. The placementDate field if present indicates the initial construction completion date for the stop. The permits and agreements fields allow free form description of permits and agreements related to the stop. The photos field allows photographs of the stop to be stored with the stop record.

The trfcSig fields describe traffic signals before and after the stoppoint. The associated-timepoint field allows an optional associated timepoint to be specified for the stop.

The incidents field optionally allows incidents that have occurred at or near a stop to be associated with the stop.

The history field allows free form text descriptions of stop history.

### ASN1:

```

CPTStoppoint ::= SEQUENCE {
    stoppoint           CPTStoppointIden,
    metadata            CPTRowMeta OPTIONAL,
    stopPointDesc       CPT-StoppointDescription OPTIONAL,
    stopPointDescLangs CPTAdditionalLanguageContents OPTIONAL,
    footnote            CPT-Footnote OPTIONAL,
    footnoteLangs      CPTAdditionalLanguageContents OPTIONAL,
    pointLocation       LRMS.GeoLocation, -- optional location information
    level               LRMS.VerticalLevel OPTIONAL,
    altitude             LRMS.Height OPTIONAL,
    address              LRMS.AddressPoint OPTIONAL, -- includes on street
    atStreet             LRMS.StreetInfo OPTIONAL,
    distanceFromInt     LRMS.Distance OPTIONAL,
    intersectionPlacement CPT-StopPlacement OPTIONAL,
    side                LRMS.Side OPTIONAL,
    positionOrBay        CPT-GenericCounter OPTIONAL,
    distance             LRMS.Distance OPTIONAL,
    minimumHeading       LRMS.Angle OPTIONAL,
    maximumHeading       LRMS.Angle OPTIONAL,
    length               LRMS.Distance OPTIONAL, -- length of the stoppoint along street
end of optional location information optional service information
    servicingRoutes     SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    directionOfRoutes   SEQUENCE (SIZE(1..100)) OF LRMS.Direction OPTIONAL,
    modes                SEQUENCE (SIZE(1..100)) OF CPT-Mode OPTIONAL,
    associatedTimepoint SCHTimepointIden OPTIONAL,
    notes                SEQUENCE (SIZE(1..20)) OF SCHNoteIden OPTIONAL,
    zones                SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    fareZoneID          FCfareZoneIden OPTIONAL, -- end of optional service information

optional facility information
    padType              CPT-PadType OPTIONAL,
    platformType         CPT-PlatformType OPTIONAL,
    stopPtAttributes     SEQUENCE (SIZE(1..20)) OF CPT-StoppointAttribute OPTIONAL,
    amenities            SEQUENCE (SIZE(1..50)) OF PIAmenityIden OPTIONAL,
    entrances            SEQUENCE (SIZE(1..20)) OF CPTStoppointEntrance OPTIONAL,
    shelters             SEQUENCE (SIZE(1..10)) OF CPTShelterIden OPTIONAL,
    parkingFacIDs       SEQUENCE (SIZE(1..20)) OF PI-ParkingFacID OPTIONAL,
    markerType           PI-MarkerType OPTIONAL,
    signs                SEQUENCE (SIZE(1..100)) OF PIStaticSign OPTIONAL,
    access               PI-ADAAccess OPTIONAL, -- end of optional facility information

optional sharing agency information
    sharedStops          SEQUENCE (SIZE(1..50)) OF CPTStoppointIden OPTIONAL,
    otherAgencies        SEQUENCE (SIZE(1..50)) OF CPT-AgencyID OPTIONAL,
    ownerAgencyID        CPT-AgencyID OPTIONAL, -- end of sharing agency information

optional construction information
    stopLastMod          CPT-Date OPTIONAL,
    placementDate        CPT-Date OPTIONAL,
    permits               SEQUENCE (SIZE(1..100)) OF CPTConstructionPermit OPTIONAL,
    permitsLangs         SEQUENCE (SIZE(1..100)) OF CPTAdditionalLanguageContents
OPTIONAL,
    agreements           SEQUENCE (SIZE(1..100)) OF CPTStoppointAgreement OPTIONAL,
    agreementsLangs     SEQUENCE (SIZE(1..100)) OF CPTAdditionalLanguageContents
OPTIONAL,
    photos               SEQUENCE (SIZE(1..100)) OF CPTPhotograph OPTIONAL, -- end of
optional construction information optional signal information
    trfcSigPastDist     LRMS.Distance OPTIONAL,

```

```
    trfcSigPastType      CPT-TrafficSignalType OPTIONAL,
    trfcSigPriorDist     LRMS.Distance OPTIONAL,
    trfcSigPriorType     CPT-TrafficSignalType OPTIONAL, -- end of optional signal
information optional incident information
    incidents           SEQUENCE (SIZE(1..1000)) OF IMIncidentIden OPTIONAL, -- end of
optional incident information optional history information
    history              CPT-Footnote OPTIONAL,
    historyLangs         CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PINearstStop](#)

**The following messages directly use this data frame:**

[CptStoppoointList](#)  
[CptStoppoointsFile](#)  
[FcFareDataPush](#)  
[FcFareLoadData](#)  
[SchCommandScheduleChange](#)

## B.89 Data Frame CPTStoppoointAgreement {CPT 1047}

**Use:**

Convey the data about a Stoppooint Agreement in a public transit agency

**Remarks:**

**ASN1:**

```
CPTStoppoointAgreement ::= SEQUENCE {
    entranceId          CPTFacilityEntranceIden,
    agreementID         CPTAgreementIden,
    agreementFilename   CPT-Footnote OPTIONAL,
    stopID               CPTStoppoointIden OPTIONAL,
    metadata              CPTRowMetaDta OPTIONAL,
    description          CPT-Footnote OPTIONAL,
    descriptionLangs     CPTAdditionalLanguageContents OPTIONAL,
    agreementText        CPT-Footnote OPTIONAL,
    agreementTextLangs   CPTAdditionalLanguageContents OPTIONAL,
    location              LRMS.GeoLocation OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTStoppooint](#)

**No messages were identified that directly use this data frame**

## B.90 Data Frame CPTStoppointEntrance {CPT 1046}

### Use:

Convey the data about an entrance of a stoppoint in a public transit agency.

### Remarks:

### ASN1:

```
CPTStoppointEntrance ::= SEQUENCE {
    entranceID          CPTFacilityEntranceIden,
    stopID              CPTStoppointIden OPTIONAL,
    metadata             CPTRowMeta OPTIONAL,
    description          CPT-Footnote OPTIONAL,
    descriptionLangs    CPTAdditionalLanguageContents OPTIONAL,
    location             LRMS.GeoLocation OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTStoppoint](#)

No messages were identified that directly use this data frame

## B.91 Data Frame CPTStoppointIden {CPT 1016}

### Use:

Uniquely identify a stoppoint whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTStoppointIden ::= SEQUENCE {
    id                  CPT-StoppointID,
    ag                  CPT-AgencyID OPTIONAL,
    name                CPT-StoppointName OPTIONAL,
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,
    desig               CPT-StoppointDesignator OPTIONAL,
    desigLangs          CPTAdditionalLanguageContents OPTIONAL,
    agdesig             CPT-AgencyDesignator OPTIONAL,
    agdesigLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCConnProtLogEntry](#)  
[CCDetourRecord](#)  
[CCEventRecord](#)  
[CCOperatorAssignmentChange](#)  
[CCPollResponseContents](#)  
[CCStopAnnunciationRecord](#)  
[CCVideoRecord](#)  
[CCWheelchairLogEntry](#)  
[CCWorkOrder](#)  
[CPTFileApplicability](#)  
[CPTLoadFileHeader](#)  
[CPTShelter](#)  
[CPTStoppoint](#)  
[CPTStoppointAgreement](#)  
[CPTStoppointEntrance](#)  
[CPTStoppointSubsetGroup](#)  
[CPTTransferCluster](#)  
[CPTUnloadFileHeader](#)  
[FCAllowedTransferRecord](#)  
[FCBoardingAlightingRecord](#)  
[FCCashBoxReconciliation](#)  
[FCEquipmentGroup](#)  
[FCFareDefinitionRecord](#)  
[FCFareZoneDefinition](#)  
[FCPassengerCountRecord](#)  
[FCRevenueRecord](#)  
[FCStoppointPair](#)  
[FCTransactionRecord](#)  
[FCTurnstileCountRecord](#)  
[FCValidationRecord](#)  
[OBStoppointRecord](#)  
[PIAccessibility](#)  
[PIAmenity](#)  
[PIAnnouncement](#)  
[PICustSubscription](#)  
[PIFoundItem](#)  
[PIGateBayAssignment](#)  
[PILostItem](#)  
[PINearestStop](#)  
[PIParkingFacility](#)  
[PIRecurringTripSegment](#)  
[PIRouteInfo](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIServiceBulletin](#)  
[PIServiceStatusRequest](#)  
[PIStaticSign](#)  
[SCHAffectedStop](#)  
[SCHRunningTimeEntry](#)  
[SCHServiceAtStop](#)  
[SCHStoppointPair](#)  
[SCHTimeStoppoint](#)  
[SCHTimepointInfo](#)  
[SCHValidationRecord](#)  
[SCHWaitingTime](#)  
[SPStopGeoloc](#)

**The following messages directly use this data frame:**

[CcConnProtAck](#)  
[CcConnProtAppr](#)

[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcTravelerAlarm](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogSub](#)  
[CcVideoImages](#)  
[CcVideoImagesSub](#)  
[CcWheelchairAck](#)  
[CcWheelchairAppr](#)  
[CcWheelchairDeny](#)  
[CcWheelchairPickup](#)  
[CcWheelchairReq](#)  
[CptCurrentVersionNotice](#)  
[CptFilesToUnload](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptShelterList](#)  
[CptShelterListSub](#)  
[CptStoppointList](#)  
[CptStoppointsFile](#)  
[CptTransferClusterList](#)  
[CptTransferClusterListSub](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[FcFareHealth](#)  
[FcFareHealthSub](#)  
[FcFareLoadData](#)  
[FcPassengerData](#)  
[FcPassengerDataSub](#)  
[FcReportCashboxEvent](#)  
[FcReportValidationErrors](#)  
[FcRevenueData](#)  
[FcRevenueDataSub](#)  
[ObLocation](#)  
[PiAccessibilityList](#)  
[PiAccessibilityListSub](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiAmenitiesList](#)  
[PiAmenitiesListSub](#)  
[PiAnnouncementsList](#)  
[PiAnnouncementsListSub](#)  
[PiGTFSData](#)  
[PiGTFSDataSub](#)  
[PiGateBayAssignmentList](#)  
[PiGateBayAssignmentListSub](#)  
[PiLocationMap](#)  
[PiLocationMapSub](#)  
[PiServiceBulletinsList](#)  
[PiServiceBulletinsListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)  
[PiStopPointETA](#)  
[PiStopPointETASub](#)  
[PiStoppointParking](#)  
[PiStoppointParkingSub](#)  
[PiStoppointPatterns](#)  
[PiStoppointPatternsSub](#)  
[SchStopServiceList](#)  
[SchStopServiceListSub](#)  
[SchTripDetailList](#)

[SchTripDetailListSub](#)

## B.92 Data Frame CPTStoppointSubsetGroup {CPT 1007}

**Use:**

Define an arbitrary, agency defined grouping of stoppoints. The group may share a street name, district or zone, servicing route, type of variable message sign, etc. A stoppoint can belong to more than one group (e.g. "Broad Street Stops", "DynaTeck VMS Sign Equipped Stops").

**Remarks:**

**ASN1:**

```
CPTStoppointSubsetGroup ::= SEQUENCE {
    group-id          CPT-StoppointSubset,
    metadata           CPTRowMetaData OPTIONAL,
    group-name         CPT-GroupName,
    group-nameLangs   CPTAdditionalLanguageContents OPTIONAL,
    group-members     SEQUENCE (SIZE(1..10000)) OF CPTStoppointIden,
    group-memo        CPT-Footnote OPTIONAL,
    group-memoLangs   CPTAdditionalLanguageContents OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CptStoppointSubsets](#)

## B.93 Data Frame CPTSubscriptionHeader {CPT 1000}

**Use:**

Provide a standardized header structure for subscription requests, cancellations, and responses.

**Remarks:**

The expiration date and time must be specified., if the type is other than query.

Report Interval is required if the requestedType is periodic, and not allowed otherwise.

In a subscription request, header the information reflects the parameters desired by the subscriber. In a response to a subscription request, the header information reflects the parameters of the subscription actually provided. Subscriber and host identifiers are agency-assigned unique numbers to identify systems/applications.

Request Identifier is a unique identifier that provided by the subscriber. The number is carried forward from the original request to all responses to the request by the server, and any cancellations must carry the same subscription number as the original request.

#### ASN1:

```
CPTSubscriptionHeader ::= SEQUENCE {
    requestedType          CPT-SubscriptionType,
    expirationDate         CPT-Date OPTIONAL,   -- for the subscription
    expirationTime          CPT-Time OPTIONAL,  -- for the subscription
    reportInterval          CPT-Duration OPTIONAL,
    requestIdentifier       CPT-RequestIdentifier,
    subscriberIdentifier    CPT-ApplicationID,
    publisherIdentifier     CPT-ApplicationID,
    applicability           CPTFileApplicability OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[CcDGPS](#)  
[CcDGPSSub](#)  
[CcFleetHealthAlarm](#)  
[CcFleetHealthAlarmSub](#)  
[CcFleetLocation](#)  
[CcFleetLocationSub](#)  
[CcFleetMechanicalData](#)  
[CcFleetMechanicalDataSub](#)  
[CcFleetPassengerData](#)  
[CcFleetPassengerDataSub](#)  
[CcJ1939FaultCodeList](#)  
[CcJ1939FaultCodeListSub](#)  
[CcLRSSub](#)  
[CcLocationReportSub](#)  
[CcOperatingData](#)  
[CcOperatingDataSub](#)  
[CcPTVAdherence](#)  
[CcPTVAdherenceSub](#)  
[CcPTVehicleAlarm](#)  
[CcPTVehicleAlarmSub](#)  
[CcPTVehicleParameter](#)  
[CcPTVehicleParameterSub](#)  
[CcPollParameters](#)  
[CcPollParametersSub](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogSub](#)  
[CcVideoFeed](#)  
[CcVideoFeedSub](#)  
[CcVideoImages](#)  
[CcVideoImagesSub](#)  
[CptEmployeeList](#)  
[CptEmployeeListSub](#)  
[CptFleetSubsets](#)  
[CptFleetSubsetsSub](#)  
[CptShelterList](#)  
[CptShelterListSub](#)

[CptStoppointList](#)  
[CptStoppointListSub](#)  
[CptStoppointSubsets](#)  
[CptStoppointSubsetsSub](#)  
[CptSubErrorNotice](#)  
[CptTransferClusterList](#)  
[CptTransferClusterListSub](#)  
[CptTransitFacilities](#)  
[CptTransitFacilitiesSub](#)  
[CptVehicleInventoryList](#)  
[CptVehicleInventoryListSub](#)  
[CptWatchdogTimer](#)  
[CptWatchdogTimerSub](#)  
[FcEquipmentSubsets](#)  
[FcEquipmentSubsetsSub](#)  
[FcFareHealth](#)  
[FcFareHealthSub](#)  
[FcFareZones](#)  
[FcFareZonesSub](#)  
[FcPassengerData](#)  
[FcPassengerDataSub](#)  
[FcRevenueData](#)  
[FcRevenueDataSub](#)  
[ImIncidentHistory](#)  
[ImIncidentHistorySub](#)  
[ImIncidentList](#)  
[ImIncidentListSub](#)  
[ObLocation](#)  
[ObLocationSub](#)  
[ObPassengerCount](#)  
[ObPassengerCountSub](#)  
[ObSignon](#)  
[ObSignonSub](#)  
[ObWLanStatusSub](#)  
[PiAccessibilityList](#)  
[PiAccessibilityListSub](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiAmenitiesList](#)  
[PiAmenitiesListSub](#)  
[PiAnnouncementsList](#)  
[PiAnnouncementsListSub](#)  
[PiDirections](#)  
[PiDirectionsSub](#)  
[PiFoundItems](#)  
[PiFoundItemsSub](#)  
[PiGtfsData](#)  
[PiGtfsDataSub](#)  
[PiGateBayAssignmentList](#)  
[PiGateBayAssignmentListSub](#)  
[PiGeoZoneList](#)  
[PiGeoZoneListSub](#)  
[PiItineraryFare](#)  
[PiItineraryFareSub](#)  
[PiItineraryMap](#)  
[PiItineraryMapSub](#)  
[PiLandmarksList](#)  
[PiLandmarksListSub](#)  
[PiLocationMap](#)  
[PiLocationMapSub](#)

[PiMailingList](#)  
[PiMailingListSub](#)  
[PiNearestStopList](#)  
[PiNearestStopListSub](#)  
[PiPatternService](#)  
[PiPatternServiceSub](#)  
[PiProfile](#)  
[PiProfileSub](#)  
[PiRouteList](#)  
[PiRouteListSub](#)  
[PiServiceBulletinsList](#)  
[PiServiceBulletinsListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)  
[PiServiceStatus](#)  
[PiServiceStatusSub](#)  
[PiStopPointETA](#)  
[PiStopPointETASub](#)  
[PiStoppointParking](#)  
[PiStoppointParkingSub](#)  
[PiStoppointPatterns](#)  
[PiStoppointPatternsSub](#)  
[PiTextTimetable](#)  
[PiTextTimetableSub](#)  
[PiTripItineraryList](#)  
[PiTripItineraryListSub](#)  
[SchActualRunningTimes](#)  
[SchActualRunningTimesSub](#)  
[SchBlockScheduleList](#)  
[SchBlockScheduleListSub](#)  
[SchBlockSubsets](#)  
[SchBlockSubsetsSub](#)  
[SchCalendar](#)  
[SchCalendarSub](#)  
[SchMasterScheduleVersion](#)  
[SchMasterScheduleVersionSub](#)  
[SchOperatorAssignmentList](#)  
[SchOperatorAssignmentListSub](#)  
[SchPatternList](#)  
[SchPatternListSub](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchRosterList](#)  
[SchRosterListSub](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleSub](#)  
[SchRunScheduleList](#)  
[SchRunScheduleListSub](#)  
[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SchStopServiceList](#)  
[SchStopServiceListSub](#)  
[SchTimepointList](#)  
[SchTimepointListSub](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)  
[SchUnassignedOperatorList](#)  
[SchUnassignedOperatorListSub](#)  
[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)

[SchVehicleAssignmentList](#)  
[SchVehicleAssignmentListSub](#)  
[ScpEventLog](#)  
[ScpEventLogSub](#)  
[SpGIS](#)  
[SpGISSub](#)  
[SpLocationConversion](#)  
[SpLocationConversionSub](#)  
[SpMapImage](#)  
[SpMapImageSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)  
[TspPRGInputsCC](#)  
[TspPRGInputsCCSub](#)

## B.94 Data Frame CPTTrainIden {CPT 1031}

### Use:

Identifies a train.

### Remarks:

A train may retain its identity, even if some or all of the cars in the train are changed based on the local agency's policies. A train may change its identity after each trip based on local agency policy. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTTrainIden ::= SEQUENCE {
    id                  CPT-TrainID,
    ag                  CPT-AgencyID OPTIONAL,
    name                CPT-GenericName OPTIONAL,
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,
    desig               CPT-GenericDesignator OPTIONAL,
    desigLangs          CPTAdditionalLanguageContents OPTIONAL,
    agdesig             CPT-AgencyDesignator OPTIONAL,
    agdesigLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

### The following data frames directly use this data frame:

[CCPTVLocation](#)  
[CCPullInReport](#)  
[CCPullOutReport](#)  
[CCTrainDefect](#)  
[CCVehicleAssignmentChange](#)  
[SCHConsistChangeEvent](#)  
[SCHTripInfo](#)  
[SCHVehicleAssignment](#)

**The following messages directly use this data frame:**

[CcLocationReport](#)  
[CcPTVehicleAlarm](#)  
[CcReportTrainInitialization](#)  
[CcReportTrainInitializationAck](#)  
[CcReportTrainPassage](#)  
[CcReportTrainPassageAck](#)  
[CcReportTrainTermination](#)  
[CcReportTrainTerminationAck](#)

## B.95 Data Frame CPTTransferCluster {CPT 1033}

**Use:**

A collection of stop points wherein transfer between routes is accessible and convenient.

**Remarks:**

Used by scheduling in defining transfer opportunities associated with a schedule. The minimum-wait field is used with connection protection to define minimum transfer time that must be allowed within this cluster.

**ASN1:**

```
CPTTransferCluster ::= SEQUENCE {
    transferCluster          CPTTransferClusterIden,
    metadata                  CPTRowMeta OPTIONAL,
    pointLocation             LRMS.GeoLocation OPTIONAL,
    stoppoints                SEQUENCE (SIZE(1..50)) OF CPTStoppointIden,
    minimum-wait              CPT-Duration OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CptTransferClusterList](#)

## B.96 Data Frame CPTTransferClusterIden {CPT 1015}

**Use:**

Uniquely identify a transfer cluster whether in a single, or multi agency environment.

**Remarks:**

**ASN1:**

```
CPTTransferClusterIden ::= SEQUENCE {
    id                      CPT-TransferClusterID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-TransferClusterName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-StoppointDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTTransferCluster](#)  
[SCHTransferInfo](#)

The following messages directly use this data frame:

[CptTransferClusterList](#)

## B.97 Data Frame CPTTransitFacility {CPT 1034}

**Use:**

Describes a facility owned by a transit property.

**Remarks:**

**ASN1:**

```
CPTTransitFacility ::= SEQUENCE {
    facility                 CPTTransitFacilityIden,
    facTypes                SEQUENCE (SIZE(1..25)) OF CPT-TransitFacilityType OPTIONAL,
    facDesc                 CPT-FacilityDesc OPTIONAL,
    facDescLangs            CPTAdditionalLanguageContents OPTIONAL,
    address                 LRMS.AddressPoint,
    location                LRMS.GeoLocation,
    startDate               CPT-Date,
    endDate                 CPT-Date OPTIONAL,
    ...
    ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CptTransitFacilities](#)

## B.98 Data Frame CPTTransitFacilityIden {CPT 1014}

**Use:**

Uniquely identify a transit facility whether in a single, or multi agency environment.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CPTTransitFacilityIden ::= SEQUENCE {
    id                         CPT-TransitFacilityID,
    ag                          CPT-AgencyID OPTIONAL,
    name                        CPT-TransitFacilityName OPTIONAL,
    nameLangs                   CPTAdditionalLanguageContents OPTIONAL,
    desig                       CPT-GenericDesignator OPTIONAL,
    desigLangs                  CPTAdditionalLanguageContents OPTIONAL,
    baseName                     CPT-PTVehicleBaseName OPTIONAL,
    baseNameLangs                CPTAdditionalLanguageContents OPTIONAL,
    agdesig                      CPT-AgencyDesignator OPTIONAL,
    agdesigLangs                 CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCLogOnOperator](#)  
[CCVideoRecord](#)  
[CPTEmployee](#)  
[CPTFileApplicability](#)  
[CPTFleetSubsetGroup](#)  
[CPTPTVehicle](#)  
[CPTPTVehicleBase](#)  
[CPTTransitFacility](#)  
[FCEquipmentGroup](#)  
[FCVaultEvent](#)  
[IMIIncident](#)  
[IMInjury](#)  
[IMPTVehicleInvolved](#)  
[PIAmenity](#)  
[PIFoundItem](#)  
[SCHOperatorAssignment](#)  
[SCHPullInOutInfo](#)  
[SCHUnassignedVehicle](#)

[SCHVehicleAssignment](#)  
[SPFacilityGeoLoc](#)  
[SPInteriorLocation](#)

The following messages directly use this data frame:

[CptEmployeeList](#)  
[CptEmployeeListSub](#)  
[CptShelterList](#)  
[CptShelterListSub](#)  
[CptVehicleInventoryList](#)  
[CptVehicleInventoryListSub](#)  
[FcReportReconcileCashbox](#)  
[FcReportReconcileCashboxAck](#)  
[ImIncidentList](#)  
[ImIncidentListSub](#)  
[PiAmenitiesList](#)  
[PiAmenitiesListSub](#)  
[SchBlockScheduleList](#)  
[SchBlockScheduleListSub](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchUnassignedOperatorList](#)  
[SchUnassignedOperatorListSub](#)  
[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)  
[SchVehicleAssignmentList](#)  
[SchVehicleAssignmentListSub](#)

## B.99 Data Frame CPTTransmissionIden {CPT 1030}

**Use:**

Identifies a transmission for a transit vehicle.

**Remarks:**

Normally the serial number will be stored in the id field. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CPTTransmissionIden ::= SEQUENCE {
    id                      CPT-TransmissionID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLang             CPTAdditionalLanguageContents OPTIONAL,
    serNum                 CPT-Footnote OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTPTVehicle](#)

**No messages were identified that directly use this data frame**

## B.100 Data Frame CPTTruckIden {CPT 1027}

**Use:**

Identifies a truck (sometimes called a bogie) for a rail vehicle.

**Remarks:**

Normally the serial number will be stored in the id field. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
CPTTruckIden ::= SEQUENCE {
    id                  CPT-TruckID,
    ag                  CPT-AgencyID OPTIONAL,
    name                CPT-GenericName OPTIONAL,
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,
    desig               CPT-GenericDesignator OPTIONAL,
    desigLangs          CPTAdditionalLanguageContents OPTIONAL,
    agdesig             CPT-AgencyDesignator OPTIONAL,
    agdesigLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTPTVehicle](#)

**No messages were identified that directly use this data frame**

## B.101 Data Frame CPTUnloadFileHeader {CPT 1001}

### Use:

Provide identification information for files to be unloaded to fixed components and /or deleted by the onboard/field component.

### Remarks:

The begin and end fields specify the period of time to which the data applies.

### ASN1:

```
CPTUnloadFileHeader ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    component-identifier     OB-MID OPTIONAL,
    component-IP             CPT-IPAddress OPTIONAL,
    component-Port           CPT-UDP-TCP-PortNumber OPTIONAL,
    stoppoint                CPTStoppointIden OPTIONAL,
    field-address            CPT-IPAddress OPTIONAL,
    field-port               CPT-UDP-TCP-PortNumber OPTIONAL,
    file-identifier          CPT-FileIdentifier,
    version-number           CPTFileVersion,
    begin                    CPT-DateTime,
    end                      CPT-DateTime,
    file-size                CPT-FileSize,
    applicability            CPTFileApplicability OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPTVPerformanceData](#)  
[CcUnloadImages](#)  
[CptFilesToUnload](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[FcUnloadData](#)  
[TspEventLogUnload](#)

## B.102 Data Frame CPTVehicleIden {CPT 1012}

### Use:

Uniquely identify a vehicle whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
CPTVehicleIden ::= SEQUENCE {
    id                      CPT-VehicleID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-VehicleName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-VehicleDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL,
    vin                     CPT-VIN OPTIONAL
}
```

The following data frames directly use this data frame:

[CCConnProtLogEntry](#)  
[CCEventRecord](#)  
[CCHistoricalAdherenceRecord](#)  
[CCJ1939FaultCode](#)  
[CCOperatingRecord](#)  
[CCPTVAlarm](#)  
[CCPTVLocation](#)  
[CCPollControl](#)  
[CCPollingGroupUpdate](#)  
[CCPullInReport](#)  
[CCPullOutReport](#)  
[CCTrainDefect](#)  
[CCVehicleAssignmentChange](#)  
[CCVehicleMechRecord](#)  
[CCVehiclePassRecord](#)  
[CCVideoRecord](#)  
[CCWheelchairLogEntry](#)  
[CCWorkOrder](#)  
[CPTFileApplicability](#)  
[CPTFleetSubsetGroup](#)  
[CPTLoadFileHeader](#)  
[CPTPTVehicle](#)  
[CPTUploadFileHeader](#)  
[FCCashBoxEvent](#)  
[FCCashBoxReconciliation](#)  
[FCRevenueRecord](#)  
[IMPTVehicleInvolved](#)  
[OBHealthStatusRecord](#)  
[PIFoundItem](#)  
[PIGateBayAssignment](#)

[PILostItem](#)  
[PIPTVDelayed](#)  
[PIPATTERNServiceEntry](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIStopPatternRouteEntry](#)  
[SCHConsistChangeEvent](#)  
[SCHOperatorAssignment](#)  
[SCHPullInOutInfo](#)  
[SCHTripDetailInfo](#)  
[SCHUnassignedVehicle](#)  
[SCHVehicleAssignment](#)

The following messages directly use this data frame:

[CcConnProtAck](#)  
[CcConnProtAppr](#)  
[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcDispatchMessageAck](#)  
[CcFleetHealthAlarm](#)  
[CcFleetHealthAlarmSub](#)  
[CcFleetLocation](#)  
[CcFleetLocationSub](#)  
[CcFleetMechanicalData](#)  
[CcFleetMechanicalDataSub](#)  
[CcFleetPassengerData](#)  
[CcFleetPassengerDataSub](#)  
[CcJ1939FaultCodeList](#)  
[CcLocationReport](#)  
[CcManualAlarm](#)  
[CcOperatingData](#)  
[CcOperatingDataSub](#)  
[CcOperatorCallRequest](#)  
[CcOperatorMessage](#)  
[CcOperatorMessageAck](#)  
[CcOperatorSignOff](#)  
[CcOperatorSignOffAck](#)  
[CcOperatorSignOn](#)  
[CcOperatorSignOnAck](#)  
[CcPTVIInspection](#)  
[CcPTVIInspectionAck](#)  
[CcPTVTripResponse](#)  
[CcPTVTrips](#)  
[CcPassengerAlarm](#)  
[CcPollResults](#)  
[CcRemotePTVDisable](#)  
[CcRemotePTVDisableAck](#)  
[CcRemotePTVEnable](#)  
[CcRemotePTVEnableAck](#)  
[CcReportTrainInitialization](#)  
[CcReportTrainPassage](#)  
[CcReportTrainTermination](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogSub](#)  
[CcVehicleShutdownAck](#)  
[CcVehicleShutdownReport](#)  
[CcVehicleStartupAck](#)  
[CcVehicleStartupReport](#)  
[CcVideoImages](#)

[CcVideoImagesSub](#)  
[CcWheelchairAck](#)  
[CcWheelchairAppr](#)  
[CcWheelchairDeny](#)  
[CcWheelchairPickup](#)  
[CcWheelchairReq](#)  
[CptCurrentVersionNotice](#)  
[CptFilesToUnload](#)  
[CptForceLoad](#)  
[CptForceUnload](#)  
[CptLoadControl](#)  
[CptOnboardVersionNotice](#)  
[CptUnloadControl](#)  
[CptUnloadRequestError](#)  
[CptVehicleInventoryList](#)  
[CptVehicleInventoryListSub](#)  
[FcFareHealth](#)  
[FcFareHealthSub](#)  
[FcReportCashboxEvent](#)  
[FcReportValidationErrors](#)  
[FcReportValidationErrorsAck](#)  
[FcRevenueData](#)  
[FcRevenueDataSub](#)  
[ImAlarmCancel](#)  
[ImSilentAlarm](#)  
[ImSilentAlarmAck](#)  
[ImSilentAlarmClose](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchUnassignedVehicleList](#)  
[SchUnassignedVehicleListSub](#)  
[SchVehicleAssignmentList](#)  
[SchVehicleAssignmentListSub](#)  
[TspPRGInputsCC](#)  
[TspPRGInputsPTV](#)

## B.103 Data Frame FCActionListEntryUTFS {FC 1019}

### Use:

Convey a UTFS Action list entry to a farebox or other item of fare equipment. Action lists were undefined at this writing so this frame is a placeholder for future use.

### Remarks:

### ASN1:

```
FCActionListEntryUTFS ::= SEQUENCE {
    action-type          FC- ActionTypeUTFS, -- other fields to be added when defined by
UTFS
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

**The following messages directly use this data frame:**

[FcFareLoadData](#)

## B.104 Data Frame FCAllowedTransferRecord {FC 1004}

**Use:**

Specify a transfer that is allowed. Onboard fare collection equipment may optionally use this information to know when a transfer may be issued.

**Remarks:**

1. The from-route and from-stop fields specify the route and stop from which the passenger is transferring.
2. The to-route field indicates routes to which a passenger may transfer after alighting a bus on from-route, at from-stop.
3. The to-stops field, indicates the stops at which a passenger may board with a transfer after alighting from a bus on from-route at from-stop.
4. If the to/from transaction-time fields are present, they indicate the times of day that such a transfer may be made.
5. The to-route-directions field and amount-pd-to-routes shall have the same number of entries as the to-routes field and shall correspond in order with the to-routes field.

**ASN1:**

```
FCAllowedTransferRecord ::= SEQUENCE {
    transferID          SCH-TransferID,
    metadata             CPTRowMeta OPTIONAL,
    from-route           SCHRouteIden,
    from-route-direction SCH-RouteDirectionName OPTIONAL,
    from-route-directionLangs CPTAdditionalLanguageContents OPTIONAL,
    from-transaction-time CPT-DateTime OPTIONAL,
    from-monetary-value FC-FareCost,
    from-ride-value      FC-RideValue,
    from-stop             CPTStoppointIden OPTIONAL,
    to-transaction-time CPT-DateTime OPTIONAL,
    to-routes             SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    to-route-directions   SEQUENCE (SIZE(1..500)) OF SCH-RouteDirectionName OPTIONAL,
    to-route-directionsLangs CPTAdditionalLanguageContents
    OPTIONAL,
    to-monetary-values   SEQUENCE (SIZE(1..500)) OF FC-FareCost OPTIONAL,
    to-ride-values        SEQUENCE (SIZE(1..500)) OF FC-RideValue OPTIONAL,
    to-stops              SEQUENCE (SIZE(1..1000)) OF CPTStoppointIden OPTIONAL
}
```

**The following data frames directly use this data frame:**

[FCValidationError](#)

**The following messages directly use this data frame:**

[FcFareDataPush](#)  
[FcFareLoadData](#)

## B.105 Data Frame FCBoardingAlightingRecord {FC 1007}

### Use:

Provide a record of boarding and/or alighting records for a vehicle at a stoppoint.

### Remarks:

1. The passenger type field, if present, defines the passenger type for all passengers counted as boarding and/or alighting in this record. If passenger types are collected, and multiple passenger types are to be expressed, then multiple records are required to describe the boarding/alighting activities at the stop.<sup>2</sup>. The location field optionally defines the geographical location where the boarding/alighting activities occurred. Similarly the stoppoint-id field defines the stoppoint at which the boarding/alighting occurred. One of these fields must be present.
3. The boarding-count and alighting-count fields define the number of passengers boarding and alighting. At least one of these fields must be present.

### ASN1:

```
FCBoardingAlightingRecord ::= SEQUENCE {
    passenger-type          ATIS.TravelerClass OPTIONAL,
    date-time                CPT-DateTime,
    location                 LRMS.GeoLocation OPTIONAL,
    stoppoint                CPTStoppointIden OPTIONAL,
    boarding-count           OB-PassengerBoarding OPTIONAL,
    alighting-count          OB-PassengerAlighting OPTIONAL
}
```

The following data frames directly use this data frame:

[FCRevenueRecord](#)

The following messages directly use this data frame:

[FcUnloadData](#)

## B.106 Data Frame FCCashBoxContents {FC 1011}

### Use:

Enumerate the contents of the cashbox.

### Remarks:

Agencies using non-US currencies that desire to enumerate bills and coins may extend this frame with enumerated local currency denominations counters.

### ASN1:

```
FCCashBoxContents ::= SEQUENCE {
    last-empty-time          CPT-DateTime,
    time-recorded             CPT-DateTime,
    cashboxID                CPT-SerialNumber,
    total-cash                FC-MonetaryValue OPTIONAL,
    currency-type              FC-MonetaryInstrAuth OPTIONAL,
    pennies                   CPT-GenericCounter OPTIONAL,
```

```

nickels          CPT-GenericCounter OPTIONAL,
dimes            CPT-GenericCounter OPTIONAL,
quarters         CPT-GenericCounter OPTIONAL,
fifty-cent-pieces CPT-GenericCounter OPTIONAL,
dollar-coins     CPT-GenericCounter OPTIONAL,
dollar-bills      CPT-GenericCounter OPTIONAL,
two-dollar-bills CPT-GenericCounter OPTIONAL,
five-dollar-bills CPT-GenericCounter OPTIONAL,
ten-dollar-bills CPT-GenericCounter OPTIONAL,
twenty-dollar-bills CPT-GenericCounter OPTIONAL,
fifty-dollar-bills CPT-GenericCounter OPTIONAL,
hundred-dollar-bills CPT-GenericCounter OPTIONAL,
token-typeA       CPT-GenericCounter OPTIONAL,
token-typeB       CPT-GenericCounter OPTIONAL,
token-typeC       CPT-GenericCounter OPTIONAL,
token-typeD       CPT-GenericCounter OPTIONAL,
token-typeE       CPT-GenericCounter OPTIONAL,
transfer-typeA    CPT-GenericCounter OPTIONAL,
transfer-typeB    CPT-GenericCounter OPTIONAL,
transfer-typeC    CPT-GenericCounter OPTIONAL,
transfer-typeD    CPT-GenericCounter OPTIONAL,
transfer-typeE    CPT-GenericCounter OPTIONAL,
transfer-typeF    CPT-GenericCounter OPTIONAL,
transfer-typeG    CPT-GenericCounter OPTIONAL,
ticket-typeA      CPT-GenericCounter OPTIONAL,
ticket-typeB      CPT-GenericCounter OPTIONAL,
ticket-typeC      CPT-GenericCounter OPTIONAL,
ticket-typeD      CPT-GenericCounter OPTIONAL,
ticket-typeE      CPT-GenericCounter OPTIONAL,
tear-off-typeA    CPT-GenericCounter OPTIONAL,
tear-off-typeB    CPT-GenericCounter OPTIONAL,
tear-off-typeC    CPT-GenericCounter OPTIONAL,
tear-off-typeD    CPT-GenericCounter OPTIONAL,
tear-off-typeE    CPT-GenericCounter OPTIONAL,
...
... -- # LOCAL_CONTENT
}

```

**The following data frames directly use this data frame:**

[FCCashBoxEvent](#)  
[FCCashBoxReconciliation](#)  
[FCRevenueRecord](#)

**The following messages directly use this data frame:**

[FcUnloadData](#)

## B.107 Data Frame FCCashBoxEvent {FC 1012}

### Use:

Record cashbox/vaulting events.

### Remarks:

### ASN1:

```
FCCashBoxEvent ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    removedCashboxID          CPT-SerialNumber OPTIONAL,
    insertedCashboxID          CPT-SerialNumber OPTIONAL,
    timeCashboxRemoved         CPT-DateTime OPTIONAL,
    timeCashboxInserted        CPT-DateTime OPTIONAL,
    removedCashboxContents      FCCashBoxContents OPTIONAL,
    fareboxDoorOpenTime        CPT-DateTime OPTIONAL,
    fareboxDoorCloseTime        CPT-DateTime OPTIONAL,
    location                   LRMS.GeoLocation OPTIONAL,
    time-recorded               CPT-DateTime
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[FcReportCashboxEvent](#)

## B.108 Data Frame FCCashBoxReconciliation {FC 1016}

### Use:

Provide a record of a cashbox reconciliation.

### Remarks:

Reconciliation may be recorded in a variety of ways- by enumerating actual and expected cashboxcontents, by listing actual cash value and expected cash value etc. Agency policy determines what subset of the optional fields are used to define a reconciliation. The definition of ok for the reconciliation ok field is agency defined (e.g. of = within five dollars, one percent, one fare, etc.).

### ASN1:

```
FCCashBoxReconciliation ::= SEQUENCE {
    cashboxID                CPT-SerialNumber,
    time-reconciled           CPT-DateTime,
    vehicle                   CPTVehicleIden OPTIONAL,
    stoppoint                 CPTStoppointIden OPTIONAL,
    equipmentID               CPT-SerialNumber OPTIONAL, -- where the cashbox was used
    employee                  CPTEmployeeIden OPTIONAL, -- performing count
```

```
employee2          CPTEmployeeIden OPTIONAL, -- confirming count
expected-contents FCCashBoxContents OPTIONAL,
actual-contents   FCCashBoxContents OPTIONAL,
expected-cash    FC-MonetaryValue OPTIONAL,
actual-cash       FC-MonetaryValue OPTIONAL,
cash-currency    FC-MonetaryInstrAuth OPTIONAL,
reconciliation-ok CPT-Boolean
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcReportReconcileCashbox](#)

## B.109 Data Frame FCCComponentEventInstance {FC 1032}

**Use:**

A data frame that describes an event that occurs in a fare collection component or subassembly.

**Remarks:**

**ASN1:**

```
FCCComponentEventInstance ::= SEQUENCE {
  id                  FC-ComponentEventID,
  type                FC-ComponentEventType,
  status-begin        CPT-DateTime, -- date/time event occurred
  status-end          CPT-DateTime OPTIONAL, -- date/time event concluded
  list-of-status-types SEQUENCE (SIZE(1..20)) OF FC-ComponentStatusType,
  list-of-error-types SEQUENCE (SIZE(1..20)) OF FC-ComponentErrorType OPTIONAL,
  severity-level     CPT-SeverityLevel,
  component-id       FC-ComponentID,
  subassembly-id     FC-SubassemblyID OPTIONAL,
  serial-number      CPT-SerialNumber OPTIONAL, -- refers to component
  footnote            CPT-Footnote OPTIONAL,
  footnoteLangs      CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[FCRevenueRecord](#)

**The following messages directly use this data frame:**

[FcFareHealth](#)  
[FcUnloadData](#)

## B.110 Data Frame FCComponentEventStatusReport {FC 1033}

### Use:

An update of a previous component event (FcComponentEventInstance).

### Remarks:

### ASN1:

```
FCComponentEventStatusReport ::= SEQUENCE {
    id                      FC-ComponentEventID,
    list-of-status-types     SEQUENCE (SIZE(1..20)) OF FC-ComponentStatusType,
    datetime                 CPT-DateTime, -- date/time update occurred
    footnote                 CPT-Footnote OPTIONAL,
    footnoteLangs            CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[FCRevenueRecord](#)

The following messages directly use this data frame:

[FcFareHealth](#)

[FcUnloadData](#)

## B.111 Data Frame FCDayDefinition {FC 1005}

### Use:

Define the type(s) (e.g. weekday, holiday) of a sequence of dates for

purposes of fare collection.

### Remarks:

### ASN1:

```
FCDayDefinition ::= SEQUENCE {
    begin-date           CPT-Date,
    end-date             CPT-Date,
    metadata              CPTRowMeta OPTIONAL,
    day-types             SEQUENCE (SIZE(1..20)) OF SCH-DayType
}
```

The following data frames directly use this data frame:

[FCValidationError](#)

**The following messages directly use this data frame:**

[FcFareDataPush](#)  
[FcFareLoadData](#)

## B.112 Data Frame FCDayTimeInterval {FC 1017}

**Use:**

Define a period of time during a day. Can be used to define a peak period.

**Remarks:**

**ASN1:**

```
FCDayTimeInterval ::= SEQUENCE {
    begin                  CPT-DateTime,
    end                    CPT-Time
}
```

**The following data frames directly use this data frame:**

[FCFarePolicyRecord](#)

**No messages were identified that directly use this data frame**

## B.113 Data Frame FCEquipmentGroup {FC 1021}

**Use:**

Define an arbitrary agency defined grouping of fare equipment. The group may share a model number, fare zone, stoppoint or any other agency defined attribute. A piece of equipment can belong to more than one group (e.g. "Transit Center Equipment", 'Cubic Model PM Turnstiles").

**Remarks:**

**ASN1:**

```
FCEquipmentGroup ::= SEQUENCE {
    group-id            FC-FareEquipmentSubset,
    metadata             CPTRowMetaData OPTIONAL,
    group-name          CPT-GroupName,
    group-nameLangs     CPTAdditionalLanguageContents OPTIONAL,
    group-garage         CPTTransitFacilityIden OPTIONAL, -- only if group shares garage
    group-stoppoint      CPTStoppointIden OPTIONAL, -- only if group shares stoppoint
    group-members        SEQUENCE (SIZE(1..10000)) OF CPT-SerialNumber,
    group-memo           CPT-Footnote OPTIONAL,
    group-memoLangs      CPTAdditionalLanguageContents OPTIONAL
```

}

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcEquipmentSubsets](#)

## B.114 Data Frame FCFareDefinitionRecord {FC 1002}

**Use:**

Define the fare structure for a defined set of conditions.

**Remarks:**

The earliest-time, latest-time, day-types, zone-pairs, stop pairs, and boarding-stops fields (if present) provide criteria that must be matched to use the fare structure defined by the fare-records fields. All criteria that are present in this frame must be matched in order to use the fare-records contained in this frame. If none of the criteria are present, then the fare policy is not dependent on any of these criteria, and the fare-records can be used under all conditions.

**ASN1:**

```
FCFareDefinitionRecord ::= SEQUENCE {
    fare-definition-id          FC-FareDefinitionRecordID,
    metadata                     CPTRowMeta OPTIONAL,
    earliest-time                CPT-DateTime OPTIONAL,
    latest-time                 CPT-Time OPTIONAL,
    day-types                    SEQUENCE (SIZE(1..10)) OF SCH-DayType OPTIONAL,
    zone-pairs                  SEQUENCE (SIZE(1..1000)) OF FCFareZoneTableEntry OPTIONAL,
    stop-pairs                  SEQUENCE (SIZE(1..15000)) OF FCStopPointPair OPTIONAL,
    boarding-stops              SEQUENCE (SIZE(1..15000)) OF CPTStoppointIden OPTIONAL,
    fare-records                SEQUENCE (SIZE(1..100)) OF FCFareRecord,
    fareRoute                   SCHRouteIden OPTIONAL,
    maximumAllowedTransfers    CPT-GenericCounter OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcFareDataPush](#)

[FcFareLoadData](#)

## B.115 Data Frame FCFareMediaID {FC 1027}

### Use:

A unique string assigned to each fare instrument issued by a financial authority (e.g., transit agency) which is recognized as payment for transit services.

### Remarks:

### ASN1:

```
FCFareMediaID ::= SEQUENCE {
    text                      FC-FareMediaID-txt OPTIONAL,
    textLangs                 CPTAdditionalLanguageContents OPTIONAL,
    number                    FC-FareMediaID-nbr
}
```

The following data frames directly use this data frame:

[FCFareMediaPair](#)  
[FCRideTransaction](#)

No messages were identified that directly use this data frame

## B.116 Data Frame FCFareMediaPair {FC 1028}

### Use:

The start and end of a contiguous sequence of fare media identifiers.

### Remarks:

### ASN1:

```
FCFareMediaPair ::= SEQUENCE {
    first-number            FCFareMediaID,
    last-number              FCFareMediaID OPTIONAL,
    metadata                 CPTRowMetaData OPTIONAL
}
```

The following data frames directly use this data frame:

[FCValidationError](#)

The following messages directly use this data frame:

[FcFareDataPush](#)  
[FcFareLoadData](#)

## B.117 Data Frame FCFarePolicyIden {FC 1024}

### Use:

Uniquely identify a fare policy whether in a single, or multi agency environment.

### Remarks:

### ASN1:

```
FCFarePolicyIden ::= SEQUENCE {
    id                      FC-FarePolicyID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    FC-FarePolicyName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[FCFarePolicyRecord](#)  
[FCTransactionRecord](#)

No messages were identified that directly use this data frame

## B.118 Data Frame FCFarePolicyRecord {FC 1018}

### Use:

Define a fare policy. An agency will normally have several fare policies.

### Remarks:

The time-to-expiration and days-to-expiration fields define how far into the future to set an expiration time (e.g. for an issued transfer, daily pass, monthly pass or smartcard). The n-nth-ride-free field is used to specify a policy of take (n-1) rides and get the nth ride free, this field specifies the value of N.

### ASN1:

```
FCFarePolicyRecord ::= SEQUENCE {
    policy                  FCFarePolicyIden,
    policyType              FC-PolicyType,
    vehicleTypes            SEQUENCE (SIZE(1..20)) OF FC-VehicleType OPTIONAL,
    userTypes               SEQUENCE (SIZE(1..100)) OF ATIS.TravelerClass OPTIONAL,
    fareBasis               FC-FareBasis OPTIONAL,
    valid-day-types         SEQUENCE (SIZE(1..10)) OF SCH-DayType OPTIONAL,
    valid-day-times          SEQUENCE (SIZE(1..10)) OF FCDayTimeInterval OPTIONAL,
    multiple-trip-type      FC-MultipleTripType OPTIONAL,
    time-to-expiration       CPT-Duration OPTIONAL,
```

```

days-to-expiration      CPT-GenericCounter OPTIONAL,
valid-transfer-from-modes SEQUENCE (SIZE(1..10)) OF CPT-Mode OPTIONAL,
valid-transfer-to-modes SEQUENCE (SIZE(1..10)) OF CPT-Mode OPTIONAL,
valid-media-types        SEQUENCE (SIZE(1..20)) OF FC-MonetaryInstrType OPTIONAL,
value-in-trips           FC-RideValueDeduct OPTIONAL,
value-in-currency        FC-FareCost OPTIONAL,
currency-type            FC-MonetaryInstrAuth OPTIONAL, -- default vs dollars
applicable-discounts     SEQUENCE (SIZE(1..50)) OF FC-DiscountType OPTIONAL,
applicable-pass-types    SEQUENCE (SIZE(1..50)) OF FC-PassInstrType OPTIONAL,
max-riders-per-instr    FC-RidersOnFIMax OPTIONAL,
rides-to-add             FC-RideValueAdd OPTIONAL, -- for loading rides
value-to-add              FC-ValueAdd OPTIONAL, -- for loading value
parking-cost-type        FC-ParkingCostType OPTIONAL,
n-nth-ride-free          CPT-GenericCounter OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcFareDataPush](#)  
[FcFareLoadData](#)

## B.119 Data Frame FCFareRecord {FC 1003}

**Use:**

Define the fare or a set of conditions (e.g. time of day, zone pairs, etc.). The conditions are defined in the FcFareDefinitionRecord that contains this data frame.

**Remarks:**

1. The passenger-types, and instrument-types fields specify the classes of people and payment instruments for which the fares defined in subsequent fields apply.
2. The value-currency field maybe used where an agency has a need to keep track of more than one currency type. Otherwise the default is the currency of the agency's nation.
3. The value-amount field provides the amount of the fare to be charged for the conditions specified in the parent FcFareDefinitionRecord or FCTransactionRecord for the specified passenger-types, and instrument types.
4. The ride-quantity field provides the number of rides to be charged for the conditions specified in the parent FcFareDefinitionRecord or FCTransactionRecord for the specified passenger-types and instrument types.
5. Under some conditions agencies may include both the value-amount and ride-quantity fields. This would accommodate cases such as an agency accepting both cash and a stored ride instrument.

**ASN1:**

```

FCFareRecord ::= SEQUENCE {
  fare-record-id      FC-FareRecordID,
  passenger-types     SEQUENCE (SIZE(1..20)) OF ATIS.TravelerClass,
  instrument-types    SEQUENCE (SIZE(1..300)) OF FC-MonetaryInstrType,
  value-currency       FC-MonetaryInstrAuth OPTIONAL,
  value-amount         FC-MonetaryInstrValue OPTIONAL,
  ride-quantity        FC-RideValueDeduct OPTIONAL
}

```

**The following data frames directly use this data frame:**

[FCFareDefinitionRecord](#)  
[FCTransactionRecord](#)

**No messages were identified that directly use this data frame**

## B.120 Data Frame FCFareZoneDefinition {FC 1000}

**Use:**

Define the limits of a fare zone.

**Remarks:**

1. The zone field allows an agency to optionally name fare zones and convey the zone name along with the zone's definition. 2. The zonePolygon field allows the zone to be defined by a series of geographical locations. If the include-stops, or exclude stops field is also present, the indicated stops are added to or excluded from the zone, independent of their location being inside or outside the polygon. 3. the include-stops field can be used without the zonePolygon field to enumerate the stops included in the zone, or with the zonePolygon field to add specific stops outside the polygon.4. The excludeStops field is used with the zonePolygon field to exclude stops from the zone that are within the polygon's boundaries. 5. A stop point may be included in more than one zone. In such cases travel between that stop point and a stop point in either zone is considered intra zone travel in the shared zone.

**ASN1:**

```
FCFareZoneDefinition ::= SEQUENCE {
    zone                  FCFareZoneIden,
    zonePolygon           SPPolygon OPTIONAL,
    include-stops          SEQUENCE (SIZE(1..2000)) OF CPTStoppointIden OPTIONAL,
    exclude-stops         SEQUENCE (SIZE(1..2000)) OF CPTStoppointIden OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcFareDataPush](#)  
[FcFareLoadData](#)  
[FcFareZonePush](#)  
[FcFareZones](#)

## B.121 Data Frame FCFareZoneIden {FC 1025}

### Use:

A globally unique identifier for a fare zone.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
FCFareZoneIden ::= SEQUENCE {
    id                      CPT-FareZoneID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    FC-FareZoneName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTStoppoint](#)  
[FCFareZoneDefinition](#)  
[FCFareZoneTableEntry](#)  
[FCValidationErrorResponse](#)  
[SCHEvent](#)

No messages were identified that directly use this data frame

## B.122 Data Frame FCFareZoneTableEntry {FC 1030}

### Use:

An entry into a zone-based boarding-alighting matrix. Direction is implied by boarding and alighting pairs.

### Remarks:

The index field is not used when this frame is used inside an FcFareDefinitionRecord.

### ASN1:

```
FCFareZoneTableEntry ::= SEQUENCE {
    index                  FC-FareZoneIndex OPTIONAL,
    boarding-zone-id      FCFareZoneIden,
    alighting-zone-id     FCFareZoneIden
}
```

**The following data frames directly use this data frame:**

[FcFareDefinitionRecord](#)

**No messages were identified that directly use this data frame**

## B.123 Data Frame FCFareboxAccessPermission {FC 1009}

### Use:

Specify an operator's permission to access the farebox.

### Remarks:

### ASN1:

```
FCFareboxAccessPermission ::= SEQUENCE {
    operator                CPTOperatorIden,
    metadata                CPTRowMetaDataTable OPTIONAL,
    earliest-access          CPT-DateTime OPTIONAL,
    latest-access            CPT-DateTime OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcFareDataPush](#)  
[FcFareLoadData](#)

## B.124 Data Frame FCPassengerCountRecord {FC 1022}

### Use:

Provide passenger count data extracted from fare data.

### Remarks:

Agencies must choose appropriate fields within this structure based on their agency architecture and fare equipment capabilities.

### ASN1:

```
FCPassengerCountRecord ::= SEQUENCE {
    route                  SCHRouteIden OPTIONAL,
    trip                   SCHTripIden OPTIONAL,
    sample-interval-begin  CPT-Datetime,
    sample-interval-end    CPT-Datetime,
    stoppoint              CPTStoppointIden OPTIONAL,
    boarded                CPT-GenericCounter OPTIONAL,
    alighted               CPT-GenericCounter OPTIONAL,
    entered-stoppoint      CPT-GenericCounter OPTIONAL,
    exited-stoppoint       CPT-GenericCounter OPTIONAL,
    waiting-at-stoppoint   CPT-GenericCounter OPTIONAL,
    onboard-vehicle        CPT-GenericCounter OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[FcPassengerData](#)

## B.125 Data Frame FCRevenueRecord {FC 1013}

### Use:

Provide revenue data unloaded from a PTV or stoppoint based fare collection equipment.

### Remarks:

### ASN1:

```
FCRevenueRecord ::= SEQUENCE {
    vehicle                CPTVehicleIden OPTIONAL,
    stoppoint              CPTStoppointIden OPTIONAL,
    date                   CPT-Datetime,
    boarding-alighting-list SEQUENCE (SIZE(1..100000)) OF FCBoardingAlightingRecord OPTIONAL,
    transaction-list       SEQUENCE (SIZE(1..100000)) OF FCTransactionRecord OPTIONAL,
    cash-box-contents      FCCashBoxContents OPTIONAL,
```

```
    health-list          SEQUENCE (SIZE(1..15000)) OF FCComponentEventInstance OPTIONAL,
    health-update-list   SEQUENCE (SIZE(1..15000)) OF FCComponentEventStatusReport
OPTIONAL,
...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcRevenueData](#)

## B.126 Data Frame FCRideTransaction {FC 1031}

**Use:**

The ride units placed on the fare media by the fare transaction unit. FcRideRemaining contains the value of the fare media, FC-RideValueAdd contains the value added to the fare media and FC-RideValueDeduct contains the amount deducted from the fare media.

**Remarks:**

**ASN1:**

```
FCRideTransaction ::= SEQUENCE {
  fare-media-id      FCFareMediaID,
  add                FC-RideValueAdd,
  deduct              FC-RideValueDeduct,
  remaining           FC-RideValueRemaining,
  result              FC-TransactionResult OPTIONAL,
  description         FC-TransactionDescription OPTIONAL
}
```

**The following data frames directly use this data frame:**

[FCTransactionRecord](#)

**No messages were identified that directly use this data frame**

## B.127 Data Frame FCSCObjectRecord {FC 1008}

### Use:

Convey a smart card object as part of a history unload. The decision as to what circumstances trigger the retention and unload of smart card objects from the onboard/field fare collection system to the fixed fare collection application is outside the scope of TCIP.

### Remarks:

1. The cardID field identifies the smart card with which the object is associated.
2. The object-type field identifies the smart card object type.
3. The object-data field conveys the object data.

### ASN1:

```
FCSCObjectRecord ::= SEQUENCE {
    cardID          FC-FareMediaID-nbr,
    object-type      FC-SCObjectType,
    object-data      FC-SCObjectCarrier
}
```

**The following data frames directly use this data frame:**

[FCTransactionRecord](#)

**No messages were identified that directly use this data frame**

## B.128 Data Frame FCStoppointPair {FC 1001}

### Use:

Define a boarding/alighting stop point pair for used in defining fares.

### Remarks:

This frame is used to define a boarding/alighting pair of stop points for which a fare definition record is applicable.

### ASN1:

```
FCStoppointPair ::= SEQUENCE {
    boarding-stop     CPTStoppointIden,
    alighting-stop    CPTStoppointIden
}
```

**The following data frames directly use this data frame:**

[FCFareDefinitionRecord](#)

**No messages were identified that directly use this data frame**

## B.129 Data Frame FCTransactionRecord {FC 1006}

### Use:

Define a fare collection transaction for unload from the onboard/field fare collection components to central fare collection applications or the data repository.

### Remarks:

1. The trans-nbr field provides a unique transaction number for this vehicle or field device, for this day. Some agencies may require periods longer than a day for uniqueness within a transaction.
2. The trans-location, or trans-stoppoint field is used to define where the transaction took place. One of these fields must be present.

### ASN1:

```
FCTransactionRecord ::= SEQUENCE {
    trans-nbr                  FC-FinancialTransactionID,
    trans-time                  CPT-DateTime,
    trans-location               LRMS.GeoLocation OPTIONAL,
    trans-stoppoint              CPTStoppointIden OPTIONAL,
    trans-sc-objects             SEQUENCE (SIZE(1..20)) OF FCSCObjectRecord OPTIONAL,
    trans-fare-record            FCFareRecord OPTIONAL,
    value-stored                FC-ValueAdd OPTIONAL,
    value-collected              FC-ValueDeduct OPTIONAL,
    value-currency               FC-MonetaryInstrAuth OPTIONAL,
    rides-collected              FC-RideValueDeduct OPTIONAL,
    rides-sold                  FC-RideValueAdd OPTIONAL,
    policy                      FCFarePolicyIden OPTIONAL,
    number-riders                FC-RidersOnFareInstr OPTIONAL,
    prior-count                 OB-J1587-PassengerCounterPatronCount OPTIONAL,
    post-count                   OB-J1587-PassengerCounterPatronCount OPTIONAL,
    trans-type                   FC-FinancialTransactionType,
    description                 FC-TransactionDescription OPTIONAL,
    result                      FC-TransactionDescription OPTIONAL,
    ride-records                SEQUENCE (SIZE(1..10000)) OF FCRideTransaction,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[FCRevenueRecord](#)

**The following messages directly use this data frame:**

[FcUnloadData](#)

## B.130 Data Frame FCTurnstileCountRecord {FC 1020}

### Use:

Record a turnstile patron counts.

### Remarks:

Stoppoint may not be specified as the stoppoint may be identified in the parent FcUnloadData message. The description field can describe turnstile location, zone, or other information based on agency requirements.

### ASN1:

```
FCTurnstileCountRecord ::= SEQUENCE {
    stoppoint           CPTStoppointIden OPTIONAL,
    turnstile-id        FC-TurnstileID OPTIONAL,
    description         CPT-Footnote OPTIONAL,
    begin-time          CPT-Datetime,
    end-time            CPT-Datetime,
    begin-entry-count   CPT-GenericCounter,
    end-entry-count     CPT-GenericCounter,
    begin-exit-count    CPT-GenericCounter OPTIONAL,
    end-exit-count      CPT-GenericCounter OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[FcUnloadData](#)

## B.131 Data Frame FCValidationError {FC 1010}

### Use:

Provide information about a farebox data load failure. If a farebox discovers multiple errors, a separate instance of this frame is required for each error.

### Remarks:

The 'affected' fields are not intended to list all indirectly affected artifacts but to identify the artifacts most closely associated with the generated error to facilitate trouble shooting.

### ASN1:

```
FCValidationError ::= SEQUENCE {
    error-type          FC-ValidationErrorHandlerType,
    affected-fare-records SEQUENCE (SIZE(1..100)) OF FC-FareRecordID OPTIONAL,
    affected-stop-fares  SEQUENCE (SIZE(1..100)) OF FC-FareDefinitionRecordID OPTIONAL,
    affected-fare-zones SEQUENCE (SIZE(1..100)) OF FCFareZoneIden OPTIONAL,
    affected-zone-fares SEQUENCE (SIZE(1..100)) OF FC-FareDefinitionRecordID OPTIONAL,
```

```

affected-bad-medias      SEQUENCE (SIZE(1..100)) OF FCFareMediaPair OPTIONAL,
affected-good-medias    SEQUENCE (SIZE(1..100)) OF FCFareMediaPair OPTIONAL,
affected-stoppoints     SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
affected-day-definitions SEQUENCE (SIZE(1..5)) OF FCDayDefinition OPTIONAL,
affected-transfers      SEQUENCE (SIZE(1..100)) OF FCAllowedTransferRecord OPTIONAL,
affected-permissions     SEQUENCE (SIZE(1..100)) OF CPTOperatorIden OPTIONAL,
...   -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[FcReportValidationErrors](#)

## B.132 Data Frame FCVaultContents {FC 1015}

**Use:**

Enumerate the contents of the cash vault.

**Remarks:**

Agencies using non-US currencies that desire to enumerate bulls and coins may extend this frame with enumerated local currency denomination counters.

**ASN1:**

```

FCVaultContents ::= SEQUENCE {
  last-empty-time          CPT-DateTime,
  time-recorded            CPT-DateTime,
  vaultID                  CPT-SerialNumber,
  cashboxIDs               SEQUENCE (SIZE(1..30000)) OF CPT-SerialNumber,
  total-cash                FC-MonetaryValue OPTIONAL,
  currency-type             FC-MonetaryInstrAuth OPTIONAL,
  pennies                   CPT-GenericCounter OPTIONAL,
  nickels                   CPT-GenericCounter OPTIONAL,
  dimes                      CPT-GenericCounter OPTIONAL,
  quarters                  CPT-GenericCounter OPTIONAL,
  fifty-cent-pieces        CPT-GenericCounter OPTIONAL,
  dollar-coins              CPT-GenericCounter OPTIONAL,
  dollar-bills              CPT-GenericCounter OPTIONAL,
  two-dollar-bills          CPT-GenericCounter OPTIONAL,
  five-dollar-bills         CPT-GenericCounter OPTIONAL,
  ten-dollar-bills          CPT-GenericCounter OPTIONAL,
  twenty-dollar-bills       CPT-GenericCounter OPTIONAL,
  fifty-dollar-bills        CPT-GenericCounter OPTIONAL,
  hundred-dollar-bills      CPT-GenericCounter OPTIONAL,
  token-typeA               CPT-GenericCounter OPTIONAL,
  token-typeB               CPT-GenericCounter OPTIONAL,
  token-typeC               CPT-GenericCounter OPTIONAL,
  token-typeD               CPT-GenericCounter OPTIONAL,
  token-typeE               CPT-GenericCounter OPTIONAL,
  transfer-typeA            CPT-GenericCounter OPTIONAL,
  transfer-typeB            CPT-GenericCounter OPTIONAL,
}

```

```

transfer-typeC           CPT-GenericCounter OPTIONAL,
transfer-typeD           CPT-GenericCounter OPTIONAL,
transfer-typeE           CPT-GenericCounter OPTIONAL,
transfer-typeF           CPT-GenericCounter OPTIONAL,
transfer-typeG           CPT-GenericCounter OPTIONAL,
ticket-typeA             CPT-GenericCounter OPTIONAL,
ticket-typeB             CPT-GenericCounter OPTIONAL,
ticket-typeC             CPT-GenericCounter OPTIONAL,
ticket-typeD             CPT-GenericCounter OPTIONAL,
ticket-typeE             CPT-GenericCounter OPTIONAL,
tear-off-typeA           CPT-GenericCounter OPTIONAL,
tear-off-typeB           CPT-GenericCounter OPTIONAL,
tear-off-typeC           CPT-GenericCounter OPTIONAL,
tear-off-typeD           CPT-GenericCounter OPTIONAL,
tear-off-typeE           CPT-GenericCounter OPTIONAL,
...
...  -- # LOCAL_CONTENT
}

```

**The following data frames directly use this data frame:**

[FCVaultEvent](#)

**No messages were identified that directly use this data frame**

## B.133 Data Frame FCVaultEvent {FC 1023}

**Use:**

Record vault events.

**Remarks:**

**ASN1:**

```

FCVaultEvent ::= SEQUENCE {
    facility           CPTTransitFacilityIden,
    removedVaultID    CPT-SerialNumber OPTIONAL,
    insertedVaultID   CPT-SerialNumber OPTIONAL,
    timeVaultRemoved  CPT-DateTime OPTIONAL,
    timeVaultInserted CPT-DateTime OPTIONAL,
    removedVaultContents FCVaultContents OPTIONAL,
    vaultDoorOpenTime  CPT-DateTime OPTIONAL,
    vaultDoorCloseTime CPT-DateTime OPTIONAL,
    location          LRMS.GeoLocation OPTIONAL,
    time-recorded     CPT-DateTime,
...
...  -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

FcReportVaultEvent**B.134 Data Frame IMIncident {IM 1020}****Use:**

This data frame provides data associated with an incident. An incident is defined as : 1. A non-reoccurring or planned event impacting transportation services. 2. Events that are not planned roadway closures or special events, i.e., events about which there is no advance notice, such as emergencies, accidents, disasters caused by humans, and natural disasters.

**Remarks:**

IM-Incident Type and subtypes deleted in favor of ITIS codes. The start time field may be in the future if the incident is planned (e.g. major sporting event). Agencies may elect to use the optional accident codes field to describe attributes of an accident. Compliant implementations must be able to receive any field that is present, however, recommend the following when using ATIS.Route as the route-location field in this TCIP data frame:

- i        omit head, startTime, endTime, other events, and estimatedCost fields
- ii.      set itinerary = false
- iii.     origen & destination fields: use only the geoLocationField inside the PointLocation
- iv.      maps and tripTotalDistance may be used if useful for the particular project.
- v.      within the subroutes field, recommend using only the origen, destination & segments fields
- vi.     within the subroutes.origen & subroutes.destination fields recommend using only the geoLocationField inside the PointLocation
- vii.    within the subroutes.segments field recommend using only the endpoint and midpoint.shapePoint fields. For endpoint use only the geoLocationField inside the PointLocation

**ASN1:**

```
IMIncident ::= SEQUENCE {
    incident           IMIncidentIden,
    reportingEmployee CPTEmployeeIden OPTIONAL,
    incidentSourceText CPT-Footnote OPTIONAL,
    incidentSourceTextLangs CPTAdditionalLanguageContents OPTIONAL,
    agency-id          CPT-AgencyID, -- transit agency that is reporting the incident
    start-time         CPT-DateTime OPTIONAL,
    distributions      SEQUENCE (SIZE(1..10)) OF IM-IncidentDistribution OPTIONAL,
    itis-type-codes   SEQUENCE (SIZE(1..15)) OF ITIS.ITIScodes OPTIONAL,
    itis-subtype-codes SEQUENCE (SIZE(1..15)) OF ITIS.ITIScodes OPTIONAL,
    accident-codes    SEQUENCE (SIZE(1..20)) OF IM-AccidentCode OPTIONAL,
    event-desc-short  IM-IncidentDescShort OPTIONAL, -- use long or short form
    event-desc-long   IM-IncidentDescLong OPTIONAL, -- use long or short form
    verified-dt       CPT-DateTime,
    staff-responders  SEQUENCE (SIZE(1..1000)) OF IM-ResponseEmployeeID OPTIONAL,
    point-location     SPPoint OPTIONAL,
```

```

line-location           SPLink OPTIONAL,
polygon-location       SPPolygon OPTIONAL, -- AFFECTED AREA
route-location          ATIS.Route OPTIONAL,
indoor-location         SPInteriorLocation OPTIONAL,
severity                CPT-SeverityLevel OPTIONAL,
priority                CPT-PriorityLevel OPTIONAL,
assigned-by             CPTEmployeeIden OPTIONAL, -- who assigned priority
status                  IM-IncidentStatus OPTIONAL,
commander               IM-ResponseEmployeeID,
event-system-ids        SEQUENCE (SIZE(1..10)) OF IM-EventIDSSystem, -- at least one
veh-involved-count      CPT-GenericCounter OPTIONAL,
involved-ptvs           SEQUENCE (SIZE(1..20)) OF IMPTVehicleInvolved OPTIONAL,
involved-other-vehs     SEQUENCE (SIZE(1..20)) OF IM-OtherVehicleInvolvedID OPTIONAL,
transit-facilities      SEQUENCE (SIZE(1..20)) OF CPTTransitFacilityIden OPTIONAL,
injured-persons          SEQUENCE (SIZE(1..10)) OF IMInjury OPTIONAL, -- place where
incident occurs          witnesses           IMWitness OPTIONAL,
witnesses               SEQUENCE (SIZE(1..200)) OF IM-TransitImpacts OPTIONAL, --
transit-impacts          dispatch response info
dispatch response info
units                   IMResponseUnit OPTIONAL,
responders              IMResponsePerson OPTIONAL,
procedure               IM-IncidentProcedure OPTIONAL,
dispatcherID            IM-DispatcherID,
response-agency          IM-ResponseAgencyID OPTIONAL,
dispatch-datetime        CPT-DateTime OPTIONAL,
response-units           SEQUENCE (SIZE(1..500)) OF IMResponseUnit OPTIONAL,
response-commands        SEQUENCE (SIZE(1..100)) OF IM-ResponseCommands OPTIONAL,
restoration-actions      SEQUENCE (SIZE(1..100)) OF IM-RestorationAction OPTIONAL,
rendezvousLocation       SPPoint OPTIONAL, -- rendezvous location for response unit and
vehicle requiring service
... -- # LOCAL_CONTENT
}

```

**The following data frames directly use this data frame:**

[IMIncidentInfo](#)

**The following messages directly use this data frame:**

[ImCommandIncidentResponse](#)  
[ImIncidentUpdate](#)  
[ImInitialIncidentReport](#)

## B.135 Data Frame IMIncidentIden {IM 1019}

### Use:

Uniquely identify an incident in a multiagency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
IMIncidentIden ::= SEQUENCE {
    id                      IM-IncidentID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPTGenericIden OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL,
    external-id             IM.ReferenceID,
    external-id-agency     CPT-AgencyDesignator
}
```

The following data frames directly use this data frame:

[CCEventRecord](#)  
[CPTStoppoint](#)  
[IMIncident](#)  
[IMIncidentInfo](#)  
[IMInjury](#)  
[IMOOtherVehicleInvolved](#)  
[IMPTVehicleInvolved](#)  
[IMWitness](#)  
[PIServiceBulletin](#)  
[SPIncidentLocation](#)

The following messages directly use this data frame:

[ImIncidentHistory](#)  
[ImIncidentHistorySub](#)  
[ImIncidentList](#)  
[ImIncidentListSub](#)  
[ImIncidentUpdate](#)  
[ImInitialReportAck](#)

## B.136 Data Frame IMIncidentInfo {IM 1000}

### Use:

Provide information about an incident to a transit agency employee.

### Remarks:

When the data frame for an incident is initially transmitted to an employee, complete incident information is provided, based on availability. When this data frame is used in an update message, detailed optional information is only included if it has changed. The subsumed-incidents field is used more than one incident is 'opened' for the same actual incident and the various reports are combined under a single incident identifier.

### ASN1:

```
IMIncidentInfo ::= SEQUENCE {
    incident                  IMIncidentIden,
    metadata                  CPTRowMetaData OPTIONAL,
    subsumedIncidents        SEQUENCE (SIZE(1..100)) OF IMIncidentIden OPTIONAL,
    incidentDescription      IMIncident OPTIONAL,
    trafficImpact            IMTrafficImpact OPTIONAL,
    incidentClosed           CPT-Boolean,
    ...  -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[IMIncidentHistory](#)

## B.137 Data Frame IMInjury {IM 11}

### Use:

A person who was injured as a result of an incident.

### Remarks:

### ASN1:

```
IMInjury ::= SEQUENCE {
    incident                  IMIncidentIden,
    injury-nature             IM-InjuryNature,
    person                    IMPerson OPTIONAL, -- mandatory
    reported-by               IMReportedBy,
    facility-name              IM-CareFacilityName OPTIONAL,
    facility-nameLangs        CPTAdditionalLanguageContents OPTIONAL, -- facility caring for
    injured person             IMPTVehicleInvolved, -- person was on-board a PTV
    ptv
```

```
other-veh          IMOtherVehicleInvolved, -- person in another veh
transit-facility   CPTTransitFacilityIden, -- person at transit fac
geo-loc            LRMS.GeoLocation -- geographic location
}
```

**The following data frames directly use this data frame:**

[IMIncident](#)

**No messages were identified that directly use this data frame**

## B.138 Data Frame IMInjuryInfo {IM 1021}

**Use:**

Information related to injuries, fatalities or property damage caused by an incident.

**Remarks:**

**ASN1:**

```
IMInjuryInfo ::= SEQUENCE {
    fatality-count      IM-HumanFatalityCount,
    injury-count        IM-HumanInjuryCount,
    damage-descs         SEQUENCE (SIZE(1..100)) OF IM-PropertyDamage OPTIONAL,
    footnote             CPT-Footnote OPTIONAL,
    footnoteLangs        CPTAdditionalLanguageContents OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[IMOtherVehicleInvolved](#)  
[IMPVehicleInvolved](#)

**No messages were identified that directly use this data frame**

## B.139 Data Frame IMOOtherVehicleInvolved {IM 1011}

### Use:

A vehicle (other than a PTVehicle) involved in an incident tracked by the Transit Management Center.

### Remarks:

### ASN1:

```
IMOOtherVehicleInvolved ::= SEQUENCE {
    other-veh          IM-OtherVehicleInvolvedID OPTIONAL,
    veh-type           IM-VehicleInvolvedType,
    incident           IMIncidentIden,
    veh-info            IMVehicleIDInformation,
    heading             LRMS.Direction, -- vehicle heading
    speed               OB-J1587-VelocityVectorSpeed,
    damage              IM-VehicleDamage OPTIONAL,
    injury-info         IMInjuryInfo,
    operator             IMPerson OPTIONAL,
    passengers          SEQUENCE \(SIZE\(1..500\)\) OF IMPerson, -- passengers in the
vehicle
    veh-person-count    IM-VehicleOccupantCount OPTIONAL,
    post-acc-test        IM-PostAccidentTest OPTIONAL,
    footnote             CPT-Footnote OPTIONAL,
    footnoteLangs        CPTAdditionalLanguageContents OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[IMInjury](#)

The following messages directly use this data frame:

[ImIncidentUpdate](#)

[ImInitialIncidentReport](#)

## B.140 Data Frame IMPTVehicleInvolved {IM 1023}

### Use:

A public transit vehicle involved in an incident.

### Remarks:

### ASN1:

```
IMPTVehicleInvolved ::= SEQUENCE {
    ptv                      CPTVehicleIden,
    incident                 IMIncidentIden,
    operator                  CPTOperatorIden,
    operator-injured          IM-OperatorInjured,
    post-accident-test        IM-PostAccidentTest,
    injury-info               IMInjuryInfo,
    onboard-passengers       SEQUENCE (SIZE(1..500)) OF IMPerson OPTIONAL,
    vehicle-damage            IM-VehicleDamage OPTIONAL,
    number-passengers-onboard IM-VehicleOccupantCount OPTIONAL,
    note                      CPT-Footnote OPTIONAL,
    velocity-vector           OBBusVelocityVector OPTIONAL,
    block                     SCHBlockIden OPTIONAL,
    run                       SCHRUnIden OPTIONAL,
    direction                 SCH-RouteDirectoryName OPTIONAL, -- code
    vehicle-base              CPTTransitFacilityIden OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[IMIncident](#)  
[IMInjury](#)

No messages were identified that directly use this data frame

## B.141 Data Frame IMPerson {IM 1022}

### Use:

Information relating to a person involved in an incident. This may include injured persons and/or witnesses.

### Remarks:

### ASN1:

```
IMPerson ::= SEQUENCE {
    personID           IM-PersonIdentifier OPTIONAL,
    incident-roles     SEQUENCE (SIZE(1..10)) OF IM-RoleInIncident,
    firstName          CPT-PersonFirstName OPTIONAL,
    firstNameLangs     CPTAdditionalLanguageContents OPTIONAL,
    middleName         CPT-PersonMiddleName OPTIONAL,
    middleNameLangs   CPTAdditionalLanguageContents OPTIONAL,
    lastName           CPT-PersonLastName OPTIONAL,
    lastNameLangs     CPTAdditionalLanguageContents OPTIONAL,
    address            LRMS.AddressPoint,
    home-phone         IM-HomePhone,
    work-phone         IM-WorkPhone OPTIONAL,
    gender             CPT-Sex OPTIONAL,
    age                IM-Age OPTIONAL,
    note               CPT-Footnote OPTIONAL,
    noteLangs          CPTAdditionalLanguageContents OPTIONAL,
    ...   -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[IMInjury](#)  
[IMOOtherVehicleInvolved](#)  
[IMPTVehicleInvolved](#)  
[IMWitness](#)

No messages were identified that directly use this data frame

## B.142 Data Frame IMReportedBy {IM 1015}

### Use:

Person reporting an incident.

### Remarks:

### ASN1:

```
IMReportedBy ::= SEQUENCE {
    response-org          IM-ResponseAgencyID,
    person-id              IM-PersonIdentifier
}
```

The following data frames directly use this data frame:

[IMInjury](#)

No messages were identified that directly use this data frame

## B.143 Data Frame IMResponsePerson {IM 1016}

### Use:

Information related to response person.

### Remarks:

### ASN1:

```
IMResponsePerson ::= SEQUENCE {
    response-agency        IM-ResponseAgencyID,
    employee-functions      SEQUENCE (SIZE(1..10)) OF IM-EmployeeFunction,
    person-id                IM-PersonIdentifier
}
```

The following data frames directly use this data frame:

[IMIncident](#)  
[IMResponseUnit](#)

No messages were identified that directly use this data frame

## B.144 Data Frame IMResponseUnit {IM 1017}

### Use:

Emergency response unit information, including vehicle status, identification and location information.

### Remarks:

The service data field is required if the response unit is a PTV.

Compliant implementations must be able to receive any field that is present, however, recommend the following when using ATIS.Route as the response-route field in this TCIP data frame:

- i. omit head, startTime, endTime, other events, and estimatedCost fields
- ii. set itinerary = false
- iii. origen & destination fields: use only the geoLocationField inside the PointLocation
- iv. maps and tripTotalDistance may be used if useful for the particular project.
- v. within the subroutes field, recommend using only the origen, destination & segments fields
- vi. within the subroutes.origen & subroutes.destination fields recommend using only the geoLocationField inside the PointLocation
- vii. within the subroutes.segments field recommend using only the endpoint and midpoint.shapePoint fields. For endpoint use only the geoLocationField inside the PointLocation

### ASN1:

```
IMResponseUnit ::= SEQUENCE {
    unit-type           IM-ResponseUnitType,
    response-agency     IM-ResponseAgencyID,
    response-id          IM-ResponseUnitID,
    eta                  CPT-DateTime OPTIONAL, -- specified when status =2 or =3
    arrival-time         CPT-DateTime,
    current-status        IM-CurrentStatus,
    current-loc            LRMS.GeoLocation,
    response-route        ATIS.Route OPTIONAL, -- Path to incident site or rendezvous
    point
        date-time           CPT-DateTime, -- (Current time)
        dispatcher-id       IM-DispatcherID OPTIONAL,
        responders          SEQUENCE (SIZE(1..50)) OF IMResponsePerson OPTIONAL, -- crew
        responseUnitLeader   IM-ResponseEmployeeID,
        responseUnitContact   IM-ResponseEmployeeID OPTIONAL,
        serviceData          CPT-Footnote OPTIONAL,
        serviceDataLangs      CPTAdditionalLanguageContents OPTIONAL,
        ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[IMIncident](#)

**The following messages directly use this data frame:**

[ImCommandIncidentResponse](#)

## B.145 Data Frame IMTrafficImpact {IM 1014}

**Use:**

The impact of a traffic incident on throughput, including the expected impact and the expected duration of the impact.

**Remarks:**

**ASN1:**

```
IMTrafficImpact ::= SEQUENCE {
    affected-roads          SEQUENCE (SIZE(1..100)) OF LRMS.StreetInfo,
    lane-blocked-count       TMDD.Event-lanes-total-affected,
    time-est-duration        TMDD.Event-timeline-estimated-duration,
    clear-date-time          CPT-Datetime OPTIONAL,
    lane-status-datasets     SEQUENCE (SIZE(1..100)) OF TMDD.Link-status OPTIONAL,
    ...
    -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[IMIncidentInfo](#)

**The following messages directly use this data frame:**

[ImIncidentUpdate](#)

[ImInitialIncidentReport](#)

## B.146 Data Frame IMVehicleIDInformation {IM 1018}

### Use:

Information to identify or describe a non-PTV vehicle involved in an incident. Every field is optional because a witness may have only limited information.

### Remarks:

### ASN1:

```
IMVehicleIDInformation ::= SEQUENCE {
    vin                      CPT-VIN OPTIONAL,
    tag                      IM-VehicleTag OPTIONAL, -- License plate number
    state                     IM-VehicleState OPTIONAL,
    make                     IM-VehicleMake OPTIONAL,
    model                     IM-VehicleModel OPTIONAL,
    year                     IM-VehicleYear OPTIONAL,
    color                     IM-VehicleColor OPTIONAL,
    desc                      IM-VehicleDescription OPTIONAL,
    descLangs                CPTAdditionalLanguageContents OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[IMOOtherVehicleInvolved](#)

No messages were identified that directly use this data frame

## B.147 Data Frame IMWitness {IM 1013}

### Use:

A person who saw the incident occur.

### Remarks:

### ASN1:

```
IMWitness ::= SEQUENCE {
    incident                 IMIncidentIden,
    person                   IMPerson,
    witness-stmt            IM-WitnessStatement OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[IMIncident](#)

**No messages were identified that directly use this data frame**

## B.148 Data Frame OBBoardAlightRecord {OB 1001}

**Use:**

Define activities occurring at a PTV door are a stop point.

**Remarks:**

**ASN1:**

```
OBBoardAlightRecord ::= SEQUENCE {
    door-opened           CPT-Boolean, -- did the door open at this stop
    open-time              CPT-DateTime OPTIONAL,
    close-time              CPT-DateTime OPTIONAL,
    boarding-count          OB-PassengerBoarding,
    alighting-count         OB-PassengerAlighting,
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[OBStoppointRecord](#)

**No messages were identified that directly use this data frame**

## B.149 Data Frame OBBusDGPSDifferentialCorrection {OB 1006}

**Use:**

DGPS Differential Correction

**Remarks:**

**ASN1:**

```
OBBusDGPSDifferentialCorrection ::= SEQUENCE {
    health                  OB-J1587-DGPSZCountStationHealth,
    scaleFactorUDRE          OB-J1587-DGPSScaleFactorUDRESatelliteID,
    prc                      OB-J1587-DGPSPseudorangeCorrection,
    rrc                      OB-J1587-DGPSRangeRateCorrection,
    issueOfData              OB-J1587-DGPSIssueofData
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcDGPS](#)  
[CcDGPSPush](#)

## B.150 Data Frame OB<sub>BBusVelocityVector</sub> {OB 1010}

**Use:**

Velocity Vector

**Remarks:**

**ASN1:**

```
OBBBusVelocityVector ::= SEQUENCE {
    velocity          OB-J1587-VelocityVectorSpeed,
    heading           OB-J1587-VelocityVectorHeading,
    pitch             OB-J1587-VelocityVectorPitch
}
```

**The following data frames directly use this data frame:**

[IMPTVehicleInvolved](#)

**No messages were identified that directly use this data frame**

## B.151 Data Frame OB<sub>HealthStatusRecord</sub> {OB 1002}

**Use:**

Define the health status of a piece of ITS equipment on a PTV.

**Remarks:**

The note field may identify the sender, as well as the health state of the sender in text.

**ASN1:**

```
OBHealthStatusRecord ::= SEQUENCE {
    vehicle          CPTVehicleIden,
    application      CPT-ApplicationID OPTIONAL,
    address          CPT-IPAddress OPTIONAL,
    port              CPT-UDP-TCP-PortNumber OPTIONAL,
    health-states    SEQUENCE (SIZE(1..10)) OF CPT-HealthStatus,
    note              CPT-Footnote OPTIONAL,
    noteLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcFleetHealthAlarm](#)  
[CcPTVehicleAlarm](#)  
[ObReportHealth](#)

## B.152 Data Frame OBParameterDumpEntry {OB 1007}

**Use:**

An SAE J-1587 parameter value as recorded by a logical storage device.

**Remarks:**

The recorded time field is intended for use where the parameter's recorded time cannot be inferred from the message containing this data frame.

**ASN1:**

```
OBParameterDumpEntry ::= SEQUENCE {
    recorded-Time           CPT-DateTime OPTIONAL,
    parameter-id             OBParameterID,
    parameter-value          OBParameterValue,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[CCOperatingRecord](#)  
[CCVehicleMechRecord](#)

**The following messages directly use this data frame:**

[CcPTVPerformanceData](#)  
[CcPTVehicleParameter](#)  
[CcVehicleShutdownReport](#)  
[CcVehicleStartupReport](#)

## B.153 Data Frame OBParameterID {OB 1004}

### Use:

Identify an SAE defined onboard parameter.

### Remarks:

### ASN1:

```
OBParameterID ::= SEQUENCE {
    pid                  OB-PID OPTIONAL,
    spn                  OB-SPN OPTIONAL,
    pgn                  OB-PGN OPTIONAL,
    footnote             CPT-Footnote OPTIONAL,
    footnoteLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCAlarm](#)  
[CCParameterRateConfiguration](#)  
[CCParameterThreshold](#)  
[OBParameterDumpEntry](#)

The following messages directly use this data frame:

[CcPTVehicleParameterSub](#)

## B.154 Data Frame OBParameterValue {OB 1005}

### Use:

Identify an SAE defined onboard parameter.

### Remarks:

### ASN1:

```
OBParameterValue ::= SEQUENCE {
    numericValue          OB-ParameterNumericValue OPTIONAL,
    stringValue           OB-ParameterStringValue OPTIONAL
}
```

The following data frames directly use this data frame:

[CCAlarm](#)  
[CCParameterThreshold](#)  
[OBParameterDumpEntry](#)

No messages were identified that directly use this data frame

## B.155 Data Frame OBSWComponent {OB 1009}

### Use:

A description of software attributes that are contained in a component (MID).

### Remarks:

### ASN1:

```
OBSWComponent ::= SEQUENCE {
    component          OB-MID,
    identification     OB-J1587-SoftwareIdentification,
    manufacturer       CPT-Manufacturer OPTIONAL,
    revision           CPT-VersionNo OPTIONAL,
    data-loads         SEQUENCE (SIZE(1..20)) OF OBSWDataLoadID
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcOnboardConfigurationData](#)  
[CcOnboardSoftware](#)  
[FcFareHealth](#)

## B.156 Data Frame OBSWDataLoadID {OB 1003}

### Use:

Identification for an onboard software data load.

### Remarks:

### ASN1:

```
OBSWDataLoadID ::= SEQUENCE {
    data-load-id        OB-DataLoadID OPTIONAL,
    data-load-name      OB-DataLoadName OPTIONAL,
    data-load-nameLangs CPTAdditionalLanguageContents OPTIONAL,
    data-load-release   CPT-DateTime OPTIONAL,
    revision-no         CPT-VersionNo
}
```

The following data frames directly use this data frame:

[OBSWComponent](#)

**No messages were identified that directly use this data frame**

## B.157 Data Frame OBStoppointRecord {OB 1008}

**Use:**

A description of the typical events occurring on a transit vehicle at or near a stop point. This includes entering/exiting stop point zone, stop/start moving at a stop point, schedule adherence status, vehicle positioning, and information related to doors on the transit vehicle.

**Remarks:**

The schedule-adh-status field is optional, because not all agencies provide scheduled times for all stops. The degree to which vehicles are instrumented will determine whether the boarded & alighted fields are used or the more detailed by-xxx-door fields, or neither. Agency policy dictates how much information is collected at each stoppoint.

**ASN1:**

```
OBStoppointRecord ::= SEQUENCE {
    entry-to-stop-point-zone   CPT-Time,
    exit-to-stop-point-zone   CPT-Time,
    stop-time-at-stop-pt      CPT-Time OPTIONAL,
    start-time-at-stop-pt     CPT-Time OPTIONAL,
    doorOpen                  CPT-Time OPTIONAL,
    doorClose                 CPT-Time OPTIONAL,
    schedule-adh-status       OB-ScheduleAdherenceOffset OPTIONAL, -- status
    time-reported             CPT-DateTime OPTIONAL,
    stoppoint                 CPTStoppointIden OPTIONAL,
    location                  LRMS.GeoLocation OPTIONAL,
    heading                   SP-AngularDirection OPTIONAL,
    pattern-segment           SCHPatternSegmentIden OPTIONAL,
    trip                      SCHTripIden OPTIONAL,
    block                     SCHBlockIden OPTIONAL,
    route                     SCHRRouteIden OPTIONAL,
    boarded                   OB-PassengerBoarding OPTIONAL,
    alighted                  OB-PassengerAlighting OPTIONAL,
    onboard                   OB-J1587-PassengerCounterPatronCount OPTIONAL,
    rightDoorBoardAlights     SEQUENCE (SIZE(1..75)) OF OBBoardAlightRecord OPTIONAL,
    leftDoorBoardAlights      SEQUENCE (SIZE(1..75)) OF OBBoardAlightRecord OPTIONAL,
    lift-activated            CPT-Boolean OPTIONAL, -- include if lift is instrumented
    odometer-reading          CPT-GenericCounter OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[CCBlockWorkRecord](#)  
[CCVehiclePassRecord](#)

**The following messages directly use this data frame:**

[ObPassengerCount](#)

## B.158 Data Frame PIAccessibility {PI 1063}

### Use:

Define an accessibility option available for a specified route, agency, stop, etc. Accessibility here includes accessibility for both ADA, and other types of special access such as bikes, and surfboards.

### Remarks:

The activation and deactivation fields, if present, indicate that the accessibility option will not be available before or after the indicated dates and/or times. If the avail-times field is absent, the amenity is always available. If the avail-times field is present, the amenity is available only during the specified times/day types. The modes field, if present, indicates that the accessibility attribute information provided in the frame applies to the indicated modes only.

### ASN1:

```
PIAccessibility ::= SEQUENCE {
    vehicleAttribute      CPT-PTVehicleAttribute,
    stopAttribute         CPT-StoppointAttribute,
    adaAttribute          PI-ADAAccess,
    activation-date       CPT-Date OPTIONAL,
    activation-time        CPT-Time OPTIONAL,
    deactivation-date     CPT-Date OPTIONAL,
    deactivation-time      CPT-Time OPTIONAL,
    avail-times            SEQUENCE (SIZE(1..100)) OF PIAvailablePeriod OPTIONAL,
    applicable-agency     CPT-AgencyID OPTIONAL,
    applicable-route       SCHRouteIden OPTIONAL,
    applicable-stoppoint   CPTStoppointIden OPTIONAL,
    modes                  SEQUENCE (SIZE(1..10)) OF CPT-Mode OPTIONAL
}
```

The following data frames directly use this data frame:

[PIRouteInfo](#)

No messages were identified that directly use this data frame

## B.159 Data Frame PIAgencyProfile {PI 1058}

### Use:

Provide general information about a transit agency.

### Remarks:

Most fields are optional, because many agencies cannot report all of these items. For example large agencies may have a very large number of fare media sales locations, and some agencies may not have a customer service website.

### ASN1:

```
PIAgencyProfile ::= SEQUENCE {
    agency-id          CPT-AgencyID,
    name               CPT-AgencyName,
    nameLangs          CPTAdditionalLanguageContents OPTIONAL,
    feedback-email     CPT-Footnote OPTIONAL,
    public-contact-phone CPT-PhoneNumber OPTIONAL,
    public-contact-fax  CPT-PhoneNumber OPTIONAL,
    public-contact-addr LRMS.AddressPoint,
    public-contact-email CPT-Footnote OPTIONAL,
    public-websiteURL  CPT-Footnote OPTIONAL,
    customer-serviceURL CPT-Footnote OPTIONAL,
    trip-plannerURL    CPT-Footnote OPTIONAL,
    operation-times     CPT-Footnote OPTIONAL,
    operation-timesLangs CPTAdditionalLanguageContents OPTIONAL,
    agency-description   CPT-Footnote OPTIONAL,
    agency-descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
    handicap-access-description CPT-Footnote OPTIONAL,
    handicap-access-descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
    fare-range-description CPT-Footnote OPTIONAL,
    fare-range-descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
    ticket-locations     CPT-Footnote OPTIONAL,
    ticket-locationLangs CPTAdditionalLanguageContents OPTIONAL,
    customer-group-served CPT-Footnote OPTIONAL,
    customer-group-servedLangs CPTAdditionalLanguageContents OPTIONAL,
    fleet-description      CPT-Footnote OPTIONAL,
    fleet-descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
    modes                 SEQUENCE (SIZE(1..20)) OF CPT-Mode OPTIONAL,
    status                CPT-Footnote OPTIONAL,
    statusLangs           CPTAdditionalLanguageContents OPTIONAL,
    service-zones         SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    service-area          SPPolygon OPTIONAL,
    static-files          SEQUENCE (SIZE(1..1000)) OF PIAgencyStaticFile OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiAgencyList](#)

## B.160 Data Frame PIAgencyStaticFile {PI 1059}

### Use:

Describe and/or convey a publicly available static file provided by a transit agency.

### Remarks:

The applicable retrieval fields are present when used in a message to describe a file for possible retrieval, but need not be present when the data frame is included with a query for a file, or as identification for a file actually being transferred.

### ASN1:

```
PIAgencyStaticFile ::= SEQUENCE {
    agency-id          CPT-AgencyID,
    name                CPT-AgencyName,
    file-headline        CPT-Footnote OPTIONAL,
    file-name           CPT-Footnote,
    file-nameLangs      CPTAdditionalLanguageContents OPTIONAL,
    description         CPT-Footnote OPTIONAL,
    descriptionLangs   CPTAdditionalLanguageContents OPTIONAL,
    applicability       CPTfileApplicability OPTIONAL,
    retrievalURL        CPT-Footnote OPTIONAL,
    retrieval-application CPT-ApplicationID OPTIONAL,
    retrievalIP          CPT-IPAddress OPTIONAL,
    retrievalPort        CPT-UDP-TCP-PortNumber OPTIONAL,
    retrieval-instructions CPT-Footnote OPTIONAL,
    retrieval-instructionsLangs CPTAdditionalLanguageContents OPTIONAL,
    file-content         CPT-FileContent OPTIONAL,
    activation            CPT-DateTime OPTIONAL,
    deactivation          CPT-DateTime OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[PIAgencyProfile](#)  
[PIRouteInfo](#)

**The following messages directly use this data frame:**

[PiAgencyFiles](#)  
[PiPushAgencyFiles](#)

## B.161 Data Frame PIAmenity {PI 1100}

### Use:

Describes the attributes of amenities at a fixed location or transit facility.

### Remarks:

If the avail-times field is absent, the amenity is always available. If the avail-times field is present, the amenity is available only during the specified times/day types.

### ASN1:

```
PIAmenity ::= SEQUENCE {
    amenity          PIAmenityIden,
    metadata         CPTRowMetaData OPTIONAL,
    stopAttribute   CPT-StoppointAttribute,
    location        LRMS.GeoLocation OPTIONAL,
    indoor-location SPInteriorLocation OPTIONAL,
    name            PI-AmenityName OPTIONAL,
    nameLangs       CPTAdditionalLanguageContents OPTIONAL,
    status          PI-AmenityStatus OPTIONAL,
    stoppoint       CPTStoppointIden OPTIONAL,
    infoType        PI-InformationType OPTIONAL,
    footnote        CPT-Footnote OPTIONAL,
    footnoteLangs  CPTAdditionalLanguageContents OPTIONAL,
    startDate       CPT-Date OPTIONAL,
    startTime       CPT-Time OPTIONAL,
    endDate         CPT-Date OPTIONAL,
    endTime         CPT-Time OPTIONAL,
    facility        CPTTransitFacilityIden OPTIONAL,
    avail-times     SEQUENCE (SIZE(1..100)) OF PIAvailablePeriod OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[PINearestStop](#)

The following messages directly use this data frame:

[PiAmenitiesList](#)

## B.162 Data Frame PIAmenityIden {PI 1057}

### Use:

Uniquely identify an amenity whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
PIAmenityIden ::= SEQUENCE {
    id                      PI-AmenityID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    PI-AmenityName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLang              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CPTStoppoint](#)  
[PIAmenity](#)

The following messages directly use this data frame:

[PiAmenitiesList](#)

## B.163 Data Frame PIAnnouncement {PI 1066}

### Use:

Provide an announcement from the agency to the public.

### Remarks:

The 'related' fields define items that the announcement has been associated with. Inclusion of an agency indicates the announcement is applicable agency wide. Similarly routes, zones, and stoppoints that are listed are associated with or impacted by the content of the announcement.

The announcement content may be conveyed by the headline, freeform-text, or announcementURL fields or any combination of the above.

### ASN1:

```
PIAnnouncement ::= SEQUENCE {
    announcement            CCAnnouncementIden,
    headline                CPT-Footnote OPTIONAL,
```

```

headlineLangs           CPTAdditionalLanguageContents OPTIONAL,
description            CPT-Footnote OPTIONAL,
descriptionLangs      CPTAdditionalLanguageContents OPTIONAL,
announcementURL       CPT-Footnote OPTIONAL,
freeform-text          CPT-Footnote OPTIONAL,
freeform-textLangs    CPTAdditionalLanguageContents OPTIONAL,
related-routes         SEQUENCE (SIZE(1..200)) OF SCHRouteIden OPTIONAL,
related-agencies       SEQUENCE (SIZE(1..20)) OF CPT-AgencyID OPTIONAL,
related-zones          SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
related-stoppoints     SEQUENCE (SIZE(1..1000)) OF CPTStoppointIden OPTIONAL
}

```

**The following data frames directly use this data frame:**

[PIRouteInfo](#)

**The following messages directly use this data frame:**

[PiAnnouncementsList](#)

## B.164 Data Frame PIAvailablePeriod {PI 1062}

**Use:**

Define a period during the day for a specified list of day types that an amenity is available. For example bike access on a bus route might be available on weekdays for the periods 00:00-0600, 10:00-15:30, and 19:00-24:00 allowing access only during non-peak times, however bike access on the same route on weekends might be available all day.

**Remarks:**

A day-type list specified with begin-time and end-time absent indicates all day on the specified day types.

**ASN1:**

```

PIAvailablePeriod ::= SEQUENCE {
  day-types           SEQUENCE (SIZE(1..20)) OF SCH-DayType,
  begin-time          CPT-DateTime OPTIONAL,
  end-time             CPT-Time OPTIONAL,
  time-name            CPT-TimeName OPTIONAL,
  time-nameLangs      CPTAdditionalLanguageContents OPTIONAL
}

```

**The following data frames directly use this data frame:**

[PIAccessibility](#)  
[PIAmenity](#)

**No messages were identified that directly use this data frame**

## B.165 Data Frame PICustSubscription {PI 1039}

### Use:

Define a subscription that a customer has requested to agency data.

### Remarks:

If request is for real-time info-only notify if between applicable start and end times. If day-types are specified only notify on specified day types.

### ASN1:

```
PICustSubscription ::= SEQUENCE {
    subscription-type          PI-CustomerSubscriptionType,
    delivery-mechanism         PI-DeliveryMechanism,
    applicable-trip             CPT-Footnote OPTIONAL,
    applicable-tripLangs        CPTAdditionalLanguageContents OPTIONAL, -- matches customer
assigned name
    applicable-time-start       CPT-DateTime OPTIONAL,
    applicable-time-end         CPT-Time OPTIONAL,
    applicable-day-types        SEQUENCE (SIZE(1..10)) OF SCH-DayType OPTIONAL,
    applicable-stop              CPTStoppointIden OPTIONAL,
    applicable-route             SCHRouteIden OPTIONAL,
    applicable-direction         LRMS.Direction OPTIONAL, -- use with stop or route
    subscription-begin           CPT-DateTime OPTIONAL,
    subscription-end             CPT-DateTime OPTIONAL,
    ...
    ... -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[PICustomerProfile](#)

The following messages directly use this data frame:

[PiAckSubscriptionUpdate](#)  
[PiReportSubscriptionUpdate](#)

## B.166 Data Frame PICustomerProfile {PI 1038}

### Use:

Convey a customer's profile information.

### Remarks:

This frame is used in several messages. Agency policies may dictate what optional fields are conveyed in what messages for security reasons (e.g. not to provide the password back on a profile query). Agencies may elect not to use user names, passwords etc.

### ASN1:

```
PICustomerProfile ::= SEQUENCE {
    customer-username          CPT-Footnote OPTIONAL,
    customer-password           CPT-Footnote OPTIONAL,
    customer-reminder           CPT-Footnote OPTIONAL, -- password reminder
    customer-new-password       CPT-Footnote OPTIONAL,
    customer                   PITravelerIden, -- zero if unassigned
    customer-address            LRMS.AddressPoint OPTIONAL,
    customer-cellphone          IM-HomePhone OPTIONAL,
    customer-homephone          IM-HomePhone OPTIONAL,
    customer-workphone          IM-WorkPhone OPTIONAL,
    customer-email               CPT-Footnote OPTIONAL,
    customer-pager              IM-HomePhone OPTIONAL,
    customer-fax                IM-WorkPhone OPTIONAL,
    customer-birthdate          CPT-Date OPTIONAL,
    customer-ssn                CPT-SSN OPTIONAL,
    recurring-trips             SEQUENCE (SIZE(1..20)) OF PIRecurringTrip OPTIONAL,
    subscriptions               SEQUENCE (SIZE(1..20)) OF PICustSubscription OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiProfile](#)  
[PiReportNewProfile](#)  
[PiReportProfileUpdate](#)

**B.167 Data Frame PIEventAnnouncement {PI 1044}****Use:**

Provide announcement information associated with an enroute event, other than a stoppoint. The event is uniquely identified by activationID.

**Remarks:**

1. The destination sign text and duration (if present) indicate that the destination sign content should be overridden for the specified duration with the supplied text upon occurrence of the event.
2. The passenger info text and duration (if present) indicate that the passenger info sign content should be overridden for the specified duration with the specified text upon occurrence of the event.
3. The event audio is an audio or audio/visual file (format specified in the parent CcStopAndDestInfo message, or inferred by filename) to be played upon the event occurrence.
4. If the event-audio field is present, then the audio-outside and audio-inside fields shall be present to indicate where the audio is to be played.
5. The canned field allows an event to trigger a canned announcement rather than an event defined announcement-this allows multiple events to trigger the same announcement without defining the announcement content within each PIEventAnnouncement data frame.
6. The tts-audio-text field allows a text to speech script to optionally be triggered as the audible event announcement, in lieu of the event audio.
  
- . 7. The event-sign-filename field allow binary files to be specified for use with LED or other signs to be played upon the event occurrence.

**ASN1:**

```

PIEventAnnouncement ::= SEQUENCE {
    activationID          SCHActivationIden,
    metadata               CPTRowMeta OPTIONAL,
    destinationSignMessage CCDestinationMessageIden OPTIONAL,
    destination-sign-duration CPT-Duration OPTIONAL,
    passenger-info-text   PI-DMSMessage OPTIONAL,
    passenger-info-textLangs CPTAdditionalLanguageContents OPTIONAL,
    passenger-info-duration CPT-Duration OPTIONAL,
    audio-outside          CPT-Boolean OPTIONAL,
    audio-inside           CPT-Boolean OPTIONAL,
    event-audio            PI-BinaryAudioData OPTIONAL,
    event-audio-filename   CPT-Footnote OPTIONAL,
    event-sign-filename    CPT-Footnote OPTIONAL,
    canned                 CCAnnouncementIden OPTIONAL,
    tts-audio-text         PI-DMSMessage OPTIONAL,
    tts-audio-textLangs   CPTAdditionalLanguageContents OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcAnnouncementInfo](#)  
[SchEventChangeFile](#)

**B.168 Data Frame PIFoundItem {PI 1042}****Use:**

Describe a found item.

**Remarks:**

The 'ext-agency' fields are used only if the items was turned over to another agency.

**ASN1:**

```

PIFoundItem ::= SEQUENCE {
    item-type          CPT-Footnote,
    item-typeLangs     CPTAdditionalLanguageContents OPTIONAL,
    item-keywords       CPT-Footnote,
    item-keywordsLangs CPTAdditionalLanguageContents OPTIONAL,
    item-color          CPT-Footnote OPTIONAL,
    item-colorLangs     CPTAdditionalLanguageContents OPTIONAL,
    item-description    CPT-Footnote,
    item-descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
    controlled-substance CPT-Boolean,
    ammunition          CPT-Boolean,
    firearm             CPT-Boolean,
    explosive            CPT-Boolean,
    hazmat               CPT-Boolean,
    perishable           CPT-Boolean,
    live-plant           CPT-Boolean,
    human                 CPT-Boolean,
    found-ptVID          CPTVehicleIden OPTIONAL,
    found-stoppoint       CPTStoppointIden OPTIONAL,
    found-run              SCHRUnIden OPTIONAL,
    found-operator         CPTOperatorIden OPTIONAL,
    found-employeeID       CPTEmployeeIden OPTIONAL,
    found-location          LRMS.AddressPoint,
    found-time              CPT-DateTime OPTIONAL,
    reported-time          CPT-DateTime,
    found-item-identifier   PI-LostFoundItemID,
    associated-lost-item    PI-LostFoundItemID OPTIONAL,
    disposition             PI-LostItemDisposition,
    cust-finder-address     LRMS.AddressPoint OPTIONAL,
    cust-finder-phone        IM-HomePhone OPTIONAL,
    cust-finder-id            PITravelerIden OPTIONAL,
    empl-finder              CPTEmployeeIden OPTIONAL,
    ext-agency-name          CPT-AgencyName OPTIONAL,
    ext-agency-nameLangs      CPTAdditionalLanguageContents OPTIONAL,
    ext-agency-contact-first-name CPT-PersonFirstName OPTIONAL,
    ext-agency-contact-first-nameLangs CPTAdditionalLanguageContents OPTIONAL,
    ext-agency-contact-middle-name CPT-PersonMiddleName OPTIONAL,
    ext-agency-contact-middle-nameLangs CPTAdditionalLanguageContents OPTIONAL,
    ext-agency-contact-last-name CPT-PersonLastName OPTIONAL,
    ext-agency-contact-last-nameLangs CPTAdditionalLanguageContents OPTIONAL,
    ext-agency-phone            IM-WorkPhone OPTIONAL,
    ext-agency-identification    CPT-Footnote OPTIONAL,
    ext-agency-identificationLangs CPTAdditionalLanguageContents OPTIONAL,
    stored-location            LRMS.AddressPoint OPTIONAL,
    stored-facility             CPTTransitFacilityIden OPTIONAL,
    stored-room-number          CPT-GenericCounter OPTIONAL,
    stored-row-number           CPT-GenericCounter OPTIONAL,
    stored-bin-number           CPT-GenericCounter OPTIONAL,
}

```

```
storage-description      CPT-Footnote OPTIONAL,  
storage-descriptionLangs CPTAdditionalLanguageContents OPTIONAL,  
...   -- # LOCAL_CONTENT  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiFoundItems](#)  
[PiReportFoundItems](#)

## B.169 Data Frame PIGTFSAgency {PI 1086}

**Use:**

This frame contains information about one or more transit agencies that provide the data in this feed.

The agencydesignator field corresponds to the GTFS field agency\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to agency\_designator. The data element "agency\_timezone" is set to type CPT-Footnote to allow values that correspond to the time zones specified in this URL, "[http://en.wikipedia.org/wiki/List\\_of\\_tz\\_zones](http://en.wikipedia.org/wiki/List_of_tz_zones)". The fields in this GTFS data frame map exactly to the agency.txt file from "[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)" as of November 03, 2011.

**Remarks:**

**ASN1:**

```
PIGTFSAgency ::= SEQUENCE {  
    agency_designator      CPT-AgencyDesignator OPTIONAL,  
    agency_name            CPT-AgencyName,  
    agency_url             CPT-Footnote,  
    agency_timezone        PI-GTFSTimeZone,  
    agency_lang            CPT-LanguageIdentifier OPTIONAL,  
    agency_phone           CPT-PhoneNumber OPTIONAL,  
    agency_fare_url        CPT-Footnote OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSSfile](#)

## B.170 Data Frame PIGTFSCalendar {PI 1084}

### Use:

This frame defines dates for service IDs using a weekly schedule. Specify when service starts and ends, as well as days of the week where service is available.

### Remarks:

### ASN1:

```
PIGTFSCalendar ::= SEQUENCE {
    serviceType          SCH-DayType,
    monday               CPT-Boolean,
    tuesday              CPT-Boolean,
    wednesday            CPT-Boolean,
    thursday             CPT-Boolean,
    friday               CPT-Boolean,
    saturday             CPT-Boolean,
    sunday               CPT-Boolean,
    start_date           CPT-Date,
    end_date              CPT-Date
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiGTFSData](#)  
[PiGTFSCalendar](#)

## B.171 Data Frame PIGTFSCalendarDates {PI 1085}

### Use:

This frame lists exceptions for the service IDs defined in the calendar.txt file. If calendar\_dates.txt includes ALL dates of service, this file may be specified instead of calendar.txt. The serviceType field corresponds to the GTFS field service\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to serviceType. The exception\_type indicates whether service is available on the date specified in the date <[http://code.google.com/transit/spec/transit\\_feed\\_specification.html](http://code.google.com/transit/spec/transit_feed_specification.html)> field.

- A value of 1 indicates that service has been added for the specified date.
- A value of 2 indicates that service has been removed for the specified date.

The fields in this GTFS data frame map exactly to the calendar\_dates.txt file from  
“<[http://code.google.com/transit/spec/transit\\_feed\\_specification.html#agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html#agency_txt__Field_Definitions)>  
” as of November 03, 2011.

### Remarks:

**ASN1:**

```
PIGTFSCalendarDates ::= SEQUENCE {
    serviceType          CPT-GenericCounter,
    date                 CPT-Date,
    exception_type       CPT-GenericCounter
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.172 Data Frame PIGTFSFareAttributes {PI 1087}

**Use:**

This frame defines fare information for a transit organization's routes. The fare\_designator field corresponds to the GTFS field fare\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to fare\_designator. The payment\_method field indicates when the fare must be paid. Valid values for this field are:

- 0 - Fare is paid on board.
- 1 - Fare must be paid before boarding.

The transfers field specifies the number of transfers permitted on this fare. Valid values for this field are:

- 0 - No transfers permitted on this fare.
- 1 - Passenger may transfer once.
- 2 - Passenger may transfer twice.
- (empty) - If this field is empty, unlimited transfers are permitted.

The transfer\_duration field specifies the length of time in seconds before a transfer expires. The fields in this GTFS data frame map exactly to the fare\_attributes.txt file from  
“[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)” as of November 03, 2011.

**Remarks:**

**ASN1:**

```
PIGTFSFareAttributes ::= SEQUENCE {
```

```

fare-designator      CPT-Footnote,
fare                  FC-FareCost,
currencytype        FC-MonetaryInstrAuth,
paymentmethod       CPT-Boolean,
transfer             PIGTFSTransfers,
transfer-duration   CPT-Duration OPTIONAL,
route_id             SCH-RouteID
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

### B.173 Data Frame PIGTFSFareRules {PI 1088}

**Use:**

This frame defines the rules for applying fare information for a transit organization's routes. . The fare\_designator field corresponds to the GTFS field fare\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to fare\_designator. . The route\_designator field corresponds to the GTFS field route\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to route\_designator.. The origin\_designator field corresponds to the GTFS field origin\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to origin\_designator. . The destination\_designator field corresponds to the GTFS field destination\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to destination\_designator.. The contains\_designator field corresponds to the GTFS field contains\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to contains\_designator. The fields in this GTFS data frame map exactly to the fare\_rules.txt file from  
“<[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)>  
” as of November 03, 2011.

**Remarks:**

**ASN1:**

```

PIGTFSFareRules ::= SEQUENCE {
  fare-designator      CPT-Footnote,
  route-designator     SCH-RouteDesignator,
  origin-designator    PI-GeoZoneName OPTIONAL,
  destination-designator PI-GeoZoneName OPTIONAL,
  contains-designator  PI-GeoZoneName OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.174 Data Frame PIGTFSFeedInfo {PI 1089}

### Use:

The frame contains information about the feed itself, rather than the services that the feed describes. The fields in this GTFS data frame map exactly to the feed\_info.txt file from “[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)” as of November 03, 2011.

### Remarks:

#### ASN1:

```
PIGTFSFeedInfo ::= SEQUENCE {
    feed_publisher_name      CPT-CompanyName,
    feed_publisher_url       CPT-Footnote,
    feed_language             CPT-Footnote,
    feed_start_date          CPT-Date OPTIONAL,
    feed_end_date             CPT-Date OPTIONAL,
    feed_version              CPT-Footnote OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.175 Data Frame PIGTFSFrequencies {PI 1090}

### Use:

This frame defines the headway (time between trips) for routes with variable frequency of service. The trip\_designator field corresponds to the GTFS field trip\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to trip\_designator. The fields in this GTFS data frame map exactly to the frequencies.txt file from “[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)” as of November 03, 2011.

### Remarks:

### ASN1:

```
PIGTFSFrequencies ::= SEQUENCE {
    trip_designator          SCH-TripDesignator,
    start_time                CPT-Time,
    end_time                  CPT-Time,
    headway_secs              CPT-Duration,
    exact_times               CPT-Boolean OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiGTFSData](#)  
[PiGTFSSFile](#)

## B.176 Data Frame PIGTFSRoutes {PI 1091}

### Use:

This frame contains information about a transit organization's routes. A route is a group of trips that are displayed to riders as a single service. The route\_designator field corresponds to the GTFS field route\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to route\_designator. The route\_type field describes the type of transportation used on a route. Valid values for this field are:

- 0 - Tram, Streetcar, Light rail. Any light rail or street level system within a metropolitan area.
- 1 - Subway, Metro. Any underground rail system within a metropolitan area.
- 2 - Rail. Used for intercity or long-distance travel.
- 3 - Bus. Used for short- and long-distance bus routes.
- 4 - Ferry. Used for short- and long-distance boat service.
- 5 - Cable car. Used for street-level cable cars where the cable runs beneath the car.

- . . 6 - Gondola, Suspended cable car. Typically used for aerial cable cars where the car is suspended from the cable.
- . . 7 - Funicular. Any rail system designed for steep inclines.

For the fields route\_color and route\_text\_color, the contents should be six hexadecimal characters corresponding to the RGB intensity values (i.e. FFFFFF = white, 000000 = black). The fields in this GTFS data frame map exactly to the routes.txt file from "[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)" as of November 03, 2011.

**Remarks:**

**ASN1:**

```
PiGTFSRoutes ::= SEQUENCE {  
    route_designator          SCH-RouteDesignator,  
    agencydesignator           CPT-AgencyDesignator OPTIONAL,  
    route_short_name           CPT-GenericName,  
    route_long_name             CPT-Footnote,  
    route_desc                  PI-GTFSRouteDesc OPTIONAL,  
    route_type                  CPT-GenericCounter,  
    route_url                   CPT-Footnote OPTIONAL,  
    route_color                  CPT-GenericName OPTIONAL,  
    route_text_color              CPT-GenericName OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.177 Data Frame PIGTFSShapes {PI 1092}

### Use:

This frame defines the rules for drawing lines on a map to represent a transit organization's routes. The shape\_designator field corresponds to the GTFS field shape\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to shape\_designator. The fields shape\_pt\_lon and shape\_pt\_lat are footnotes because GTFS uses the decimal format to convey location, whereas TCIP uses micro degrees from LMRS.Longitude and LMRS.Latitude. The fields in this GTFS data frame map exactly to the shapes.txt file from "[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)" as of November 03, 2011.

### Remarks:

### ASN1:

```
PIGTFSShapes ::= SEQUENCE {
    shape_designator          LRMS.Text-name255 OPTIONAL,
    shape_pt_lon               CPT-Footnote,
    shape_pt_lat               CPT-Footnote,
    shape_pt_sequence          CPT-GenericCounter,
    shape_dist_traveled        LRMS.Distance OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.178 Data Frame PIGTFSStopTimes {PI 1083}

### Use:

This frame lists the times that a vehicle arrives at and departs from individual stops for each trip. The trip\_designator field corresponds to the GTFS field trip\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to trip\_designator. The stop\_designator field corresponds to the GTFS field stop\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to stop\_designator. The pickup\_type field indicates whether passengers are picked up at a stop as part of the normal schedule or whether a pickup at the stop is not available. This field also allows the transit agency to indicate that passengers must call the agency or notify the driver to arrange a pickup at a particular stop. Valid values for this field are:

- 0 - Regularly scheduled pickup
- 1 - No pickup available
- 2 - Must phone agency to arrange pickup
- 3 - Must coordinate with driver to arrange pickup

The default value for this field is 0.

The drop\_off\_type field indicates whether passengers are dropped off at a stop as part of the normal schedule or whether a drop off at the stop is not available. This field also allows the transit agency to indicate that passengers must call the agency or notify the driver to arrange a drop off at a particular stop. Valid values for this field are:

- 0 - Regularly scheduled drop off
- 1 - No drop off available
- 2 - Must phone agency to arrange drop off
- 3 - Must coordinate with driver to arrange drop off

The default value for this field is 0.

The fields in this GTFS data frame map exactly to the stop\_times.txt file from  
 “[http://code.google.com/transit/spec/transit\\_feed\\_specification.html#agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html#agency_txt__Field_Definitions)” as of November 03, 2011.

### Remarks:

### ASN1:

```
PIGTFSStopTimes ::= SEQUENCE {
    tripdesignator          SCH-TripDesignator,
    arrival_time              CPT-Time,
    departure_time            CPT-Time,
    stop_designator           CPT-StopPointDesignator,
    stop_sequence              CPT-GenericCounter,
    stop_headsign             CC-DestinationSignDesignator OPTIONAL,
    pick_up_type               CPT-GenericCounter OPTIONAL,
```

```
drop_off_type      CPT-GenericCounter OPTIONAL,  
shape_dist_traveled PI-GTFSNormalizedDistance OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.179 Data Frame PIGTFSStops {PI 1093}

### Use:

This frame contains information about individual locations where vehicles pick up or drop off passengers. The stop\_designator field corresponds to the GTFS field stop\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to stop\_designator. The fields stop\_lon and stop\_lat are footnotes because GTFS uses the decimal format to convey location, whereas TCIP uses micro degrees from LMRS.Longitude and LMRS.Latitude. The location\_type field can have the following values:

- 0 or blank - Stop. A location where passengers board or disembark from a transit vehicle.
- 1 - Station. A physical structure or area that contains one or more stop.

The parent\_station field contains the stop\_designator of the parent stop or is left blank. The fields in this GTFS data frame map exactly to the stops.txt file from "[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)" as of November 03, 2011.

### Remarks:

The wheelchair\_boarding field identifies whether wheelchair boarding is possible at a specified stop. The accepted values are

- 0 (or empty)-indicates that there is no accessibility information for the stop
- 1 - indicates that at least some vehicle at this stop can be boarded by a rider in a wheelchair
- 2- wheelchair boarding is not possible at this stop

If a stop is part of a larger station use the following:

- 0 (or empty) - the stop will inherit its wheelchair\_boarding value from the parent station, if specified in the parent

- 1 - there exists some accessible path from outside the station to the specific stop/platform
- 2- there exists no accessible path from outside the station to the specific stop/platform

**ASN1:**

```
PIGTFSStops ::= SEQUENCE {
    stop_designator          CPT-StoppointDesignator,
    stop_code                 CPT-StoppointDesignator OPTIONAL,
    stop_name                 CPT-StoppointName,
    stop_desc                 CPT-Footnote,
    stop_lon                  PI-GTFSLongitude,
    stop_lat                  PI-GTFSLatitude,
    zone_name                PI-GeoZoneName OPTIONAL,
    stop_url                  CPT-Footnote OPTIONAL,
    location_type             CPT-Boolean OPTIONAL,
    parent_station            CPT-StoppointID OPTIONAL,
    stop_timezone             PI-GTFSTimeZone OPTIONAL,
    wheelchair_boarding      CPT-GenericCounter OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

**B.180 Data Frame PIGTFSTransfers {PI 1094}****Use:**

This frame defines the rules for making connections at transfer points between routes. The from\_stop\_designator field corresponds to the GTFS field from\_stop\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to from\_stop\_designator. The to\_stop\_designator field corresponds to the GTFS field to\_stop\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to to\_stop\_designator. The transfer field specifies the type of connection for the specified (from\_stop\_designator, to\_stop\_designator) pair. Valid values for this field are:

- 0 or (empty) - This is a recommended transfer point between two routes.
- 1 - This is a timed transfer point between two routes. The departing vehicle is expected to wait for the arriving one, with sufficient time for a passenger to transfer between routes
- 2 - This transfer requires a minimum amount of time between arrival and departure to ensure a connection. The time required to transfer is specified by min\_transfer\_time\_sec.
- 3 - Transfers are not possible between routes at this location.

The fields in this GTFS data frame map exactly to the transfers.txt file from  
“[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)”  
as of November 03, 2011.

**Remarks:**

**ASN1:**

```
PiGTFSTransfers ::= SEQUENCE {
    from_stop_designator      CPT-StoppointDesignator,
    to_stop_designator        CPT-StoppointDesignator,
    transfer                  CPT-GenericCounter,
    min_transfer_time_secs    CPT-Duration OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PiGTFSFareAttributes](#)

**The following messages directly use this data frame:**

[PiGTFSData](#)

[PiGTFSFile](#)

## B.181 Data Frame PiGTFSTrips {PI 1082}

**Use:**

This frame lists all trips and their routes. A trip is a sequence of two or more stops that occurs at specific time. The route\_designator field corresponds to the GTFS field route\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to route\_designator. The trip\_designator field corresponds to the GTFS field trip\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to trip\_designator. The shape\_designator field corresponds to the GTFS field shape\_id. TCIP defined an ID field to be strictly numeric there for the name was changed to shape\_designator. The fields in this GTFS data frame map exactly to the trips.txt file from  
“[http://code.google.com/transit/spec/transit\\_feed\\_specification.html%23agency\\_txt\\_\\_Field\\_Definitions](http://code.google.com/transit/spec/transit_feed_specification.html%23agency_txt__Field_Definitions)”  
as of November 03, 2011.

**Remarks:**

The wheelchair\_accessible field is used to convey whether a trip accommodates riders in wheelchairs

- 0 (or empty) - indicates that there is no accessibility information for the trip
- 1- indicates that the vehicle being used on this particular trip can accommodate at least one rider in a wheelchair
- 2- indicates that no riders in wheelchairs can be accommodated on this trip

**ASN1:**

```
PIGTFTrips ::= SEQUENCE {
    route_designator          SCH-RouteDesignator,
    serviceType                CPT-GenericCounter,
    trip_designator            SCH-TripDesignator,
    trip_headsign               PI-DMSMessage OPTIONAL,
    trip_short_name             SCH-TripTypeDescription OPTIONAL,
    route_direction              SCH-RouteDirectionName OPTIONAL,
    block_id                    SCH-BlockID OPTIONAL,
    shape_designator             CPT-Footnote OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGTFSData](#)  
[PiGTFSFile](#)

## B.182 Data Frame PIGateBayAssignment {PI 1104}

**Use:**

Conveys the gate/bay assignment of a vehicle for a stoppoint.

**Remarks:**

**ASN1:**

```
PIGateBayAssignment ::= SEQUENCE {
    stoppoint                  CPTStoppointIden,
    trip                       SCHTripIden OPTIONAL,
    vehicle                     CPTVehicleIden OPTIONAL,
    gate-bay                   CPT-GenericCounter,
    dest                        CPT-Footnote OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGateBayAssignmentList](#)

## B.183 Data Frame PIGeoZone {PI 1061}

### Use:

Define a geographical zone.

### Remarks:

Zones may overlap, and may include areas within more than one jurisdictional boundary, or areas served by more than one transit agency. Zones may define jurisdictional boundaries (e.g. cities, counties, states), service areas, or any other locally defined geographical area.

### ASN1:

```
PIGeoZone ::= SEQUENCE {
    zone                  PIGeoZoneIden,
    zone-boundary          SPPolygon,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiGeoZoneList](#)

## B.184 Data Frame PIGeoZoneIden {PI 1060}

### Use:

Uniquely identify a locally defined geographical zone on a nationwide basis.

### Remarks:

The encoding of state shall be the two letter state postal abbreviation in the US. Zones that are contained entirely within a single state shall have numbers in the range 1-32768. Zones that includes areas of more than one state shall have a number in the range 32769-65535, and this number shall be mutually assigned to the shared zone by the states involved. Thus if a zone includes areas of OR and CA, those states may mutually agree to assign number 32800 to that zone, and each state would have entry in the states field for that zone. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
PIGeoZoneIden ::= SEQUENCE {
    id                  PI-GeoZoneID,
    ag                  CPT-AgencyID OPTIONAL,
    name                PI-GeoZoneName,
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,
    desig               CPT-GenericDesignator OPTIONAL,
```

```
desigLang          CPTAdditionalLanguageContents OPTIONAL,  
agdesigLangs      CPTAdditionalLanguageContents OPTIONAL,  
agdesig           CPT-AgencyDesignator OPTIONAL,  
states            SEQUENCE (SIZE(1..50)) OF LRMS.Text-name255  
}
```

**The following data frames directly use this data frame:**

[CPTStoppoint](#)  
[PIAgencyProfile](#)  
[PIAnnouncement](#)  
[PIGeoZone](#)

**The following messages directly use this data frame:**

[CptStoppointList](#)  
[CptStoppointListSub](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiAnnouncementsList](#)  
[PiAnnouncementsListSub](#)  
[PiGeoZoneList](#)  
[PiGeoZoneListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)

## B.185 Data Frame PILandmark {PI 1031}

**Use:**

Define a landmark.

**Remarks:**

The point location contains a name, pointtype, location expressions (address, geo, linear etc)

**ASN1:**

```
PILandmark ::= SEQUENCE {  
    id                  PI-LandmarkID,  
    type                PI-LandmarkType,  
    name                PI-LandmarkName OPTIONAL,  
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,  
    location             SPPoint,  
    description         PI-LandmarkDesc OPTIONAL,  
    descriptionLangs   CPTAdditionalLanguageContents OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiLandmarksList](#)

**B.186 Data Frame PILostItem {PI 1043}****Use:**

Describe a lost item

**Remarks:****ASN1:**

```

PILostItem ::= SEQUENCE {
    item-type
        CPT-Footnote,
    item-typeLangs
        CPTAdditionalLanguageContents OPTIONAL,
    item-color
        CPT-Footnote OPTIONAL,
    item-colorLangs
        CPTAdditionalLanguageContents OPTIONAL,
    item-description
        CPT-Footnote,
    item-descriptionLangs
        CPTAdditionalLanguageContents OPTIONAL,
    controlled-substance
        CPT-Boolean,
    ammunition
        CPT-Boolean,
    firearm
        CPT-Boolean,
    explosive
        CPT-Boolean,
    hazmat
        CPT-Boolean,
    perishable
        CPT-Boolean,
    live-plant
        CPT-Boolean,
    live-animal
        CPT-Boolean,
    human
        CPT-Boolean,
    lost-ptvID
        CPTVehicleIden OPTIONAL,
    lost-stoppoint
        CPTStoppointIden OPTIONAL,
    lost-run
        SCHRUnIden OPTIONAL,
    lost-operator
        CPTOperatorIden OPTIONAL,
    lost-employeeID
        CPTEmployeeIden OPTIONAL,
    lost-location
        LRMS.AddressPoint,
    lost-time
        CPT-DateTime OPTIONAL,
    reported-time
        CPT-DateTime,
    lost-item-identifier
        PI-LostFoundItemID,
    associated-found-item
        PI-LostFoundItemID OPTIONAL,
    disposition
        PI-LostItemDisposition,
    reported-by-first-name
        CPT-PersonFirstName OPTIONAL,
    reported-by-first-nameLangs
        CPTAdditionalLanguageContents OPTIONAL,
    reported-by-middle-name
        CPT-PersonMiddleName OPTIONAL,
    reported-by-middle-nameLangs
        CPTAdditionalLanguageContents OPTIONAL,
    reported-by-last-name
        CPT-PersonLastName OPTIONAL,
    reported-by-last-nameLangs
        CPTAdditionalLanguageContents OPTIONAL,
    reporter-address
        LRMS.AddressPoint OPTIONAL,
    reporter-home-phone
        IM-HomePhone OPTIONAL,
    reporter-work-phone
        IM-WorkPhone OPTIONAL,
    customer
        PITravelerIden,
    reported-to-empl
        CPTEmployeeIden,
    ...
    -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiFoundItems](#)  
[PiFoundItemsSub](#)  
[PiReportLostItems](#)

## B.187 Data Frame PIMap {PI 1068}

### Use:

Convey a map for use by transit customers.

### Remarks:

The map-image and map-format fields (if present) are used together to define a static map included with the data frame. The map-URL field (if present) provides a URL that allows a browser to access a map which may be static or dynamic. If a map is requested, and cannot be provided, an error message shall appear in the map-headline field.

### ASN1:

```
PIMap ::= SEQUENCE {
    map-image                  PI-BinaryImageData OPTIONAL,
    map-format                 PI-GraphicFormat OPTIONAL,
    map-URL                    CPT-Footnote OPTIONAL,
    map-headline                CPT-Footnote OPTIONAL,
    map-headlineLangs          CPTAdditionalLanguageContents OPTIONAL,
    map-footnote               CPT-Footnote OPTIONAL,
    map-footnoteLangs          CPTAdditionalLanguageContents OPTIONAL,
    itineraryID                IM.ReferenceID OPTIONAL
}
```

The following data frames directly use this data frame:

[PIRouteInfo](#)  
[PIXMLTimetable](#)

The following messages directly use this data frame:

[PiItineraryMap](#)  
[PiNearestStopList](#)

## B.188 Data Frame PINearestStop {PI 1103}

### Use:

The closest stop to a given location.

### Remarks:

### ASN1:

```
PINearstStop ::= SEQUENCE {
    stoppoint          CPTStoppointIden,
    location           LRMS.GeoLocation, -- the location of the nearest stop
    mode               CPT-Mode OPTIONAL,
    route              SCHRouteIden OPTIONAL,
    rtDirection        SCH-RouteDirectoryName OPTIONAL,
    rtDirectionLangs   CPTAdditionalLanguageContents OPTIONAL,
    stopAttributes     SEQUENCE (SIZE(1..20)) OF CPT-StoppointAttribute OPTIONAL,
    stop-detail        CPTStoppoint OPTIONAL,
    amenities          SEQUENCE (SIZE(1..50)) OF PIAmenity OPTIONAL,
    shelters           SEQUENCE (SIZE(1..10)) OF CPTShelter OPTIONAL,
    parkingFacs        SEQUENCE (SIZE(1..5)) OF PIParkingFacility OPTIONAL,
    bulletins          SEQUENCE (SIZE(1..10)) OF PIServiceBulletin OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiNearestStopList](#)

## B.189 Data Frame PINearestStopRequest {PI 1102}

### Use:

Request for information about the nearest stop to a point such as a traveler's home, or an information kiosk in a downtown location.

### Remarks:

Location indicates the geographical point to which the nearest stop meeting the request criteria is sought. RouteIDs, RtDirection and StopAttributes if present provide criteria that the stop must meet. If no criteria are present, then the nearest stop point to location is requested.

### ASN1:

```
PINearstStopRequest ::= SEQUENCE {
    location           SPPoint,
    route              SCHRouteIden OPTIONAL,
    rtDirection        SCH-RouteDirectoryName OPTIONAL,
    rtDirectionLangs   CPTAdditionalLanguageContents OPTIONAL,
```

```
        stopAttributes          SEQUENCE (SIZE(1..20)) OF CPT-StoppointAttribute OPTIONAL
    }
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiNearestStopList](#)  
[PiNearestStopListSub](#)

## B.190 Data Frame PIPTVDelayed {PI 1075}

**Use:**

Define a vehicle delay for use in a service bulletin.

**Remarks:**

**ASN1:**

```
PIPTVDelayed ::= SEQUENCE {
    vehicle           CPTVehicleIden,
    trip              SCHTripIden,
    route             SCHRRouteIden,
    direction         SCH-RouteDirectionName OPTIONAL,
    directionLangs   CPTAdditionalLanguageContents OPTIONAL,
    delay             CPT-Duration,
    remarks           CPT-Footnote OPTIONAL,
    remarksLangs     CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PIServiceBulletin](#)

**No messages were identified that directly use this data frame**

## B.191 Data Frame PIParkingFacility {PI 1101}

### Use:

Describes a parking facility associated with a transit stoppoint.

### Remarks:

The stopID field should be included unless the associated stopID is unknown.

### ASN1:

```
PIParkingFacility ::= SEQUENCE {
    parkingFacID          PI-ParkingFacID,
    parkingFacAG           CPT-AgencyID OPTIONAL,
    stoppoint              CPTStoppointIden OPTIONAL,
    owner                  PI-ParkingOwnerName OPTIONAL,
    ownerLangs             CPTAdditionalLanguageContents OPTIONAL,
    phone                  PI-ParkingFacPhone OPTIONAL,
    facilityInfo           ATIS.ParkingLotInformation,
    instructions            ATIS.ParkingInstructions OPTIONAL,
    directions              SEQUENCE (SIZE(1..100)) OF ATIS.ManeuverInstruction OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[PINearstStop](#)

**No messages were identified that directly use this data frame**

## B.192 Data Frame PIPatternServiceEntry {PI 1074}

### Use:

Provides state information for a single vehicle providing service on a specified pattern. This information can be used to provide service status information to customers using maps, schematic diagrams or in other formats.

### Remarks:

### ASN1:

```
PIPatternServiceEntry ::= SEQUENCE {
    vehicleID               CPTVehicleIden,
    patternID                SCHPatternIden,
    location                 LRMS.GeoLocation OPTIONAL,
    distance                  LRMS.Distance OPTIONAL,
    scheduleStatus            OB-ScheduleAdherenceOffset OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiPatternService](#)

## B.193 Data Frame PIRecurringTrip {PI 1040}

**Use:**

Define a trip that a customer takes on a recurring basis (e.g. for a commute).

**Remarks:**

If customer doesn't provide a range of start times, then earliest and latest will be the same.

**ASN1:**

```
PIRecurringTrip ::= SEQUENCE {
    customer-assigned-name      CPT-Footnote, -- e.g. "to work"
    customer-assigned-nameLangs CPTAdditionalLanguageContents OPTIONAL,
    earliest-start-time         CPT-DateTime,
    latest-start-time          CPT-DateTime,
    day-types                  SEQUENCE (SIZE(1..10)) OF SCH-DayType OPTIONAL,
    trip-segments              SEQUENCE (SIZE(1..15)) OF PIRecurringTripSegment,
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[PICustomerProfile](#)

**No messages were identified that directly use this data frame**

## B.194 Data Frame PIRecurringTripSegment {PI 1041}

### Use:

Define a segment of a customer's recurring trip.

### Remarks:

#### ASN1:

```
PIRecurringTripSegment ::= SEQUENCE {
    origin-stoppoint      CPTStoppointIden,
    destination-stoppoint CPTStoppointIden,
    route                SCHrouteIden,
    ...  -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[PIRecurringTrip](#)

No messages were identified that directly use this data frame

## B.195 Data Frame PIRouteInfo {PI 1065}

### Use:

Provide general information about a transit route.

### Remarks:

The description field provides an optional freeform text description of the route. The map field provides a static or dynamic map of the route. The accesses field (if present) defines the accessibility features associated with the route. The Astops and Bstops fields (if present) provide ordered lists of the stops serviced by the route in each direction. Note that on some transit routes all stops are not serviced by all trips on the route. The announcements field provides published announcements associated with the route.

The begin-date-time, end-date-time, notes, timepoints, and timetables fields are all associated with the published timetables for the route. This data frame conveys only the currently active timetables published for the route. The Publish Text Timetable dialog allows timetables for a route to be obtained for other time periods.

#### ASN1:

```
PIRouteInfo ::= SEQUENCE {
    route          SCHrouteIden,
    modes          SEQUENCE (SIZE(1..10)) OF CPT-Mode,
    description    CPT-Footnote OPTIONAL,
    descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
```

```

map                               PIMap OPTIONAL,
accesses                         SEQUENCE (SIZE(1..100)) OF PIAccessibility OPTIONAL,
direction-A                      SCH-RouteDirectoryName OPTIONAL,
direction-ALangs                  CPTAdditionalLanguageContents OPTIONAL,
direction-B                      SCH-RouteDirectoryName OPTIONAL,
direction-BLangs                 CPTAdditionalLanguageContents OPTIONAL,
astops                            SEQUENCE (SIZE(1..500)) OF CPTStoppointIden OPTIONAL,
bstops                            SEQUENCE (SIZE(1..500)) OF CPTStoppointIden OPTIONAL,
files                             SEQUENCE (SIZE(1..100)) OF PIAgencyStaticFile OPTIONAL,
announcements                     SEQUENCE (SIZE(1..100)) OF PIAnnouncement OPTIONAL,
begin-time-date                  CPT-Datetime OPTIONAL,
end-time-date                     CPT-Datetime OPTIONAL,
notes                            SEQUENCE (SIZE(1..1000)) OF SCHNoteInfo OPTIONAL,
timepoints                        SEQUENCE (SIZE(1..1000)) OF PITimetableTimepoint OPTIONAL,
timetables                         SEQUENCE (SIZE(1..20)) OF PIXMLTimetable OPTIONAL,
... -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiRouteList](#)

## B.196 Data Frame PISchedAdherenceCountdown {PI 10}

**Use:**

The estimated time until the arrival of the next transit vehicle serving a particular transit stop.

**Remarks:**

The routeDirection field should be present for any stopID that supports more than one direction of travel. The destination field provides an optional text indication of the PTVs destination. The gate-bay field optionally allows a gate or bay number for the arrival to be specified. The available-seats field, if present, specifies the number of unoccupied seats on the vehicle. The tolerance value should be interpreted as an estimate of the time (plus or minus) that the next Arrival Countdown is within. The estimated departure field, if present, specifies the expected departure date-time.

**ASN1:**

```

PISchedAdherenceCountdown ::= SEQUENCE {
  stoppoint                    CPTStoppointIden,
  route                        SCHRouteIden OPTIONAL,
  routeDirection                SCH-RouteDirectoryName OPTIONAL,
  routeDirectionLangs           CPTAdditionalLanguageContents OPTIONAL,
  destination                  PI-DMSMessage OPTIONAL,
  destinationLangs              CPTAdditionalLanguageContents OPTIONAL,
  gate-bay                      CPT-GenericCounter OPTIONAL,
  trip                          SCHTripIden OPTIONAL,
  vehicle                       CPTVehicleIden OPTIONAL,
  nextArrivalCountdown          CPT-Duration OPTIONAL,
  tolerance                     CPT-Duration OPTIONAL,
  estimated-departure           CPT-Datetime OPTIONAL,
  scheduled-departure           CPT-Datetime OPTIONAL,
}

```

```

comment           CPT-Footnote OPTIONAL,
commentLangs      CPTAdditionalLanguageContents OPTIONAL,
available-seats   CPT-SeatCount OPTIONAL,
nextArrivalCurrentLocation LRMS.GeoLocation OPTIONAL,
nextScheduledArrival CPT-DateTime OPTIONAL,
nextArrivalCurrentLocationNameLangs CPTAdditionalLanguageContents OPTIONAL,
bulletins         SEQUENCE (SIZE(1..10)) OF PiServiceBulletin OPTIONAL,
metadata          CPTRowMetaData OPTIONAL,
nextArrivalCurrentLocationName CPT-Footnote OPTIONAL,
distAway          LRMS.Distance OPTIONAL,
stopsAway         CPT-GenericCounter OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiServiceStatus](#)  
[PiStopPointETA](#)

## B.197 Data Frame PISchedAdherenceOffSched {PI 1096}

**Use:**

The number of minutes an actual transit vehicle serving a scheduled transit trip varies from that scheduled trip.

**Remarks:**

The routeDirection field should be present for any stopID that supports more than one direction of travel. The available-seats field, if present, specifies the number of unoccupied seats on the vehicle. The tolerance value should be interpreted as an estimate of the number of seconds (plus or minus) that the offScheduleTime is within.

**ASN1:**

```

PISchedAdherenceOffSched ::= SEQUENCE {
    route                  SCHRouteIden,
    routeDirection          SCH-RouteDirectoryName OPTIONAL,
    routeDirectionLangs     CPTAdditionalLanguageContents OPTIONAL,
    trip                   SCHTripIden OPTIONAL,
    vehicle                CPTVehicleIden OPTIONAL,
    stoppoint               CPTStoppointIden,
    arriveTimeScheduled    CPT-DateTime OPTIONAL,
    vehicleLocation         LRMS.GeoLocation OPTIONAL, -- The real-time location of a
transit vehicle
    offScheduleArrival     CPT-Duration OPTIONAL,
    tolerance               CPT-Duration OPTIONAL,
    comment                CPT-Footnote OPTIONAL,
    commentLangs            CPTAdditionalLanguageContents OPTIONAL,
    available-seats         CPT-SeatCount OPTIONAL,
    bulletins               SEQUENCE (SIZE(1..10)) OF PiServiceBulletin OPTIONAL,
    departTimeScheduled    CPT-DateTime OPTIONAL,
    offScheduleDeparture   CPT-Duration OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiServiceStatus](#)

## **B.198 Data Frame PISchedAdherenceRange {PI 1097}**

**Use:**

The range of estimated delay until a PTV arrival.

**Remarks:**

**ASN1:**

```
PISchedAdherenceRange ::= SEQUENCE {
    route                                SCHRouteIden,
    routeDirection                         SCH-RouteDirectoryName OPTIONAL,
    routeDirectionLangs                   CPTAdditionalLanguageContents OPTIONAL,
    trip                                   SCHTripIden,
    vehicle                                CPTVehicleIden,
    stoppoint                               CPTStoppointIden,
    estimatedArrivalRange                 PI-EstimatedArrivalRange,
    comment                                 CPT-Footnote OPTIONAL,
    commentLangs                            CPTAdditionalLanguageContents OPTIONAL,
    available-seats                        CPT-SeatCount OPTIONAL,
    bulletins                               SEQUENCE (SIZE(1..10)) OF PIServiceBulletin OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiServiceStatus](#)

## B.199 Data Frame PIService {PI 1064}

### Use:

Specify a transit route & the mode(s) of service it provides.

### Remarks:

### ASN1:

```
PIService ::= SEQUENCE {
    route          SCHRouteIden,
    modes          SEQUENCE (SIZE(1..10)) OF CPT-Mode
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiServiceList](#)

## B.200 Data Frame PIServiceBulletin {PI 1033}

### Use:

Convey a service bulletin. Service bulletins are used to specify temporary changes to service (e.g. detours, disruptions).

### Remarks:

If more than one route is affected and they are affected differently, separate bulletins are required to describe the differing effects. The related-incidents field may be used by agencies that want to associate bulletins with related incidents. Normally related-incidents are not provided to the public.

### ASN1:

```
PIServiceBulletin ::= SEQUENCE {
    bulletinID          PIServiceBulletinIden,
    affectedRoutes      SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    affectedDirections   SEQUENCE (SIZE(1..10)) OF SCH-RouteDirectionName OPTIONAL,
    affectedDirectionsLangs SEQUENCE (SIZE(1..10)) OF CPTAdditionalLanguageContents OPTIONAL,
    effectiveTime        CPT-DateTime OPTIONAL,
    expirationTime       CPT-DateTime OPTIONAL,
    skippedpoints        SEQUENCE (SIZE(1..500)) OF SCHTimeStoppoint OPTIONAL,
    affectedstoppoints   SEQUENCE (SIZE(1..1000)) OF CPTStoppointIden OPTIONAL,
    related-incidents     SEQUENCE (SIZE(1..20)) OF IMIncidentIden OPTIONAL,
    description          CPT-Footnote,
    descriptionLangs     CPTAdditionalLanguageContents OPTIONAL,
    delayedPTVs          SEQUENCE (SIZE(1..500)) OF PIPTVDelayed OPTIONAL,
    delayedServices       SEQUENCE (SIZE(1..50)) OF PIServiceDelayed OPTIONAL,
    affStops              SEQUENCE (SIZE(1..5000)) OF SCHAffectedStop OPTIONAL,
```

```
... -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data frame:**

[PINearstStop](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)

**The following messages directly use this data frame:**

[PiServiceBulletinsList](#)

## B.201 Data Frame PIServiceBulletinIden {PI 1069}

**Use:**

Uniquely identify a service bulletin whether in a single, or multi agency environment.

**Remarks:**

Legacy systems in some agencies use two or three character alphanumeric string designators as unique identifiers, but do not use binary numeric identifiers. Recommend that such agencies put this legacy identifier into the designator field, and create the unique binary identifier (ID) by encoding their designator characters' ASCII equivalents into the low order bytes of the ID, and encoding ASCII blanks (0x20) into the unused high order bytes. Consistent use of this approach will allow legacy implementations to continue to use the legacy identifiers, and new implementations to rely on the binary ID field. All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
PIServiceBulletinIden ::= SEQUENCE {  
    id                  PI-ServiceBulletinID,  
    ag                  CPT-AgencyID OPTIONAL,  
    name                PI-GeoZoneName OPTIONAL,  
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,  
    desig               PI-ServiceBulletinDes OPTIONAL,  
    desigLangs          CPTAdditionalLanguageContents OPTIONAL,  
    agdesig             CPT-AgencyDesignator OPTIONAL,  
    agdesigLangs        CPTAdditionalLanguageContents OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[PIServiceBulletin](#)

**No messages were identified that directly use this data frame**

## B.202 Data Frame PIServiceDelayed {PI 1076}

### Use:

Define a delay or service suspension on a transit route in a specified direction.

### Remarks:

Start and end location fields define an interval of the route that is affected, if these fields are absent the entire route is affected in the specified direction. If suspend is true, service will not be available for the specified route/direction interval. If the start-time and/or end-time fields are present they indicate the expected time interval for the delay or suspension. If suspended is false, the delay field indicates the magnitude of the service delay.

### ASN1:

```
PIServiceDelayed ::= SEQUENCE {
    route                  SCHRouteIden,
    direction              SCH-RouteDirectionName,
    directionLangs         CPTAdditionalLanguageContents OPTIONAL,
    suspended              CPT-Boolean,
    start-location          SCHTimeStoppoint OPTIONAL,
    end-location            SCHTimeStoppoint OPTIONAL,
    start-time              CPT-DaTeTime OPTIONAL,
    end-time                CPT-DaTeTime OPTIONAL,
    delay                  CPT-Duration OPTIONAL,
    remarks                CPT-Footnote OPTIONAL,
    remarksLangs           CPTAdditionalLanguageContents OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

The following data frames directly use this data frame:

[PIServiceBulletin](#)

No messages were identified that directly use this data frame

## B.203 Data Frame PIServiceStatusRequest {PI 1001}

### Use:

Specify a set of criteria for a real-time service status request.

### Remarks:

PI-ServiceStatusType indicates the type of status information that is requested. RouteID indicates what route service status is being requested for; if absent all routes servicing stopID are requested. RouteDirection is intended for use at stops supporting multiple directions of travel. If present, information is requested only for vehicles traveling in the specified direction.

### ASN1:

```
PIServiceStatusRequest ::= SEQUENCE {
    statusType          PI-ServiceStatusType,
    stoppoint           CPTStoppointIden,
    route               SCHRouteIden OPTIONAL,
    routeDirection      SCH-RouteDirectionName OPTIONAL,
    routeDirectionLangs CPTAdditionalLanguageContents OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiServiceStatus](#)  
[PiServiceStatusSub](#)

## B.204 Data Frame PISignIden {PI 1105}

### Use:

Uniquely identify an electronic or painted Sign

### Remarks:

### ASN1:

```
PISignIden ::= SEQUENCE {
    id                  PI-SignID,
    ag                 CPT-AgencyID OPTIONAL,
    name               CC-AnnouncementName OPTIONAL,
    nameLangs          CPTAdditionalLanguageContents OPTIONAL,
    desig              CC-AnnouncementDesignator OPTIONAL,
    desigLangs         CPTAdditionalLanguageContents OPTIONAL,
    agdesig            CPT-AgencyDesignator OPTIONAL,
    agdesigLangs       CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PIStaticSign](#)

**No messages were identified that directly use this data frame**

## B.205 Data Frame PIStaticSign {PI 1098}

**Use:**

Information related to the sign at the transit stop point.

**Remarks:**

**ASN1:**

```
PIStaticSign ::= SEQUENCE {
    signID           PISignIden,
    metadata          CPTRowMeta OPTIONAL,
    location          LRMS.GeoLocation OPTIONAL,
    stoppoint         CPTStoppointIden,
    message           PI-StaticSignMessage OPTIONAL,
    messageLangs      CPTAdditionalLanguageContents OPTIONAL,
    description        PI-StaticSignDescription OPTIONAL,
    descriptionLangs CPTAdditionalLanguageContents OPTIONAL,
    type              PI-SignType OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTStoppoint](#)

**No messages were identified that directly use this data frame**

## B.206 Data Frame PIStopPatternPointEntry {PI 1077}

### Use:

This is used to define a distance within a pattern of a given TimeStopPoint. This is a member of PIStopPatternRouteEntry which contains the information on Route/Pattern.

### Remarks:

### ASN1:

```
PIStopPatternPointEntry ::= SEQUENCE {
    timeStopID          SCHTimeStoppoint,
    patternDist         LRMS.Distance
}
```

**No data frames were identified that directly use this data frame**

**No messages were identified that directly use this data frame**

## B.207 Data Frame PIStopPatternRouteEntry {PI 1078}

### Use:

This frame specifies the membership of a stoppoint or timepoint in a pattern. It may be used in a context that is generic, or that is specific to a particular trip.

### Remarks:

The points field is used to identify the list of timepoints and optionally stoppoints on the pattern. If the offset field is used within points, it should indicate the distance from the beginning of the pattern (not segment). Some implementations may find it useful to include only timepoints in this list.

### ASN1:

```
PIStopPatternRouteEntry ::= SEQUENCE {
    point                SCHTimeStoppoint,
    patternID           SCHPatternIden,
    route               SCHRouteIden,
    routeDirection      SCH-RouteDirectionName OPTIONAL,
    routeDirectionLangs CPTAdditionalLanguageContents OPTIONAL,
    destination         PI-DMSMessage OPTIONAL,
    destinationLangs   CPTAdditionalLanguageContents OPTIONAL,
    gate-bay            CPT-GenericCounter OPTIONAL,
    trip                SCHTripIden OPTIONAL,
    vehicle             CPTVehicleIden OPTIONAL,
    distIntoPattern     LRMS.Distance OPTIONAL,
    points              SEQUENCE (SIZE(1..500)) OF SCHTimeStoppoint
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiStoppointPatterns](#)

## **B.208 Data Frame PITimetableTimepoint {PI 1037}**

**Use:**

Provide a limited definition of a timepoint for use in a timetable.

**Remarks:**

The timepoint designator, and timepoint name (display name) may optionally be included in the SCHTimepointIden frame.

**ASN1:**

```
PITimetableTimepoint ::= SEQUENCE {
    timepoint-iden          SCHTimepointIden,
    display-hdr-info         SCHNoteIden OPTIONAL,
    display-note             SCHNoteIden OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PIRouteInfo](#)

**The following messages directly use this data frame:**

[PiPushTextTimetable](#)  
[PiTextTimetable](#)

## B.209 Data Frame PITravelerIden {PI 1056}

### Use:

Uniquely identify a Traveler whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
PITravelerIden ::= SEQUENCE {
    id                      PI-TravelerID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    IM-PersonIdentifier OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLang               CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs            CPTAdditionalLanguageContents OPTIONAL,
    firstName               CPT-PersonFirstName OPTIONAL,
    firstNameLangs          CPTAdditionalLanguageContents OPTIONAL,
    middleName              CPT-PersonMiddleName OPTIONAL,
    middleNameLangs         CPTAdditionalLanguageContents OPTIONAL,
    lastName                CPT-PersonLastName OPTIONAL,
    lastNameLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[PICustomerProfile](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[PITravelerProfile](#)

The following messages directly use this data frame:

[PiAckNewProfile](#)  
[PiAckSubscriptionUpdate](#)  
[PiProfile](#)  
[PiProfileSub](#)  
[PiReportAckProfileUpdate](#)  
[PiReportSubscriptionUpdate](#)

## B.210 Data Frame PITravelerProfile {PI 1073}

### Use:

Describes the customer information related to the transit customer.

### Remarks:

If the traveler-id is unknown, use zero to indicate no value has yet been assigned.

### ASN1:

```
PITravelerProfile ::= SEQUENCE {
    traveler          PITravelerIden,
    nameLast         PI-TravelerLastName,
    nameLastLangs   CPTAdditionalLanguageContents OPTIONAL,
    nameFirst        PI-TravelerFirstName,
    nameFirstLangs  CPTAdditionalLanguageContents OPTIONAL,
    travelerHomeAddress LRMS.AddressPoint OPTIONAL,
    travelerWorkAddress LRMS.AddressPoint OPTIONAL,
    phone            PI-TravelerPhone OPTIONAL,
    phoneExt         PI-TravelerPhoneExtension OPTIONAL,
    pager            PI-TravelerPager OPTIONAL,
    callBack         PI-TravelerCallBack OPTIONAL,
    fax              PI-TravelerFax OPTIONAL,
    email            PI-TravelerEmail OPTIONAL,
    triggerEvent     PI-TravelerTriggerEvent OPTIONAL,
    triggerEventLangs CPTAdditionalLanguageContents OPTIONAL,
    triggerTime      CPT-DateTime OPTIONAL,
    contactMode     PI-TravelerContactMode OPTIONAL,
    mailer           PI-TravelerMailingMatl OPTIONAL,
    mailerLangs      CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[PITripRequest](#)

The following messages directly use this data frame:

[PiSendMailing](#)

## B.211 Data Frame PITripRequest {PI 1099}

### Use:

Specifies a customer request for an itinerary for a trip including a transit system.

### Remarks:

Start/Stop times, constraints and preferences for the trip are included in the ATIS.RouteRequest.

### ASN1:

```
PITripRequest ::= SEQUENCE {
    tripRequest          ATIS.RouteRequest,
    returnRequest        ATIS.RouteRequest OPTIONAL,
    profile              PITravelerProfile OPTIONAL,
    fareConstraints      PITripRequestFareConstraints OPTIONAL,
    mapRequest           CPT-Boolean
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[PiTripItineraryList](#)  
[PiTripItineraryListSub](#)

## B.212 Data Frame PITripRequestFareConstraints {PI 1036}

### Use:

Identify fare-related constraints for a transit trip request.

### Remarks:

### ASN1:

```
PITripRequestFareConstraints ::= SEQUENCE {
    fareInstrumentID     FC-FareInstrID OPTIONAL,
    agencyID              CPT-AgencyID OPTIONAL, -- owner of fare media
    monetaryInstID        FC-MonetaryInstrType OPTIONAL,
    rideInstID            FC-RideInstrID OPTIONAL,
    passInstID            FC-PassInstrID OPTIONAL,
    riderClass             ATIS.TravelerClass OPTIONAL,
    adaNeeds               SEQUENCE (SIZE(1..10)) OF PI-ADANeeded OPTIONAL,
    costMax                PI-MaxCost OPTIONAL
}
```

**The following data frames directly use this data frame:**

[PITripRequest](#)

**No messages were identified that directly use this data frame**

## B.213 Data Frame PIXMLTimetable {PI 1035}

### Use:

Provide timetable information in an XML parsable format.

### Remarks:

### ASN1:

```
PIXMLTimetable ::= SEQUENCE {
    agency-id                  CPT-AgencyID OPTIONAL,
    mode                        CPT-Mode OPTIONAL,
    route                       SCHRouteIden,
    direction                   SCH-RouteDirectoryName,
    directionLangs              CPTAdditionalLanguageContents OPTIONAL,
    schedule-identifier          CPT-Footnote OPTIONAL, -- agency use
    schedule-identifierLangs    CPTAdditionalLanguageContents OPTIONAL,
    route-text                  CPT-Footnote OPTIONAL, -- printable misc route info
    route-textLangs             CPTAdditionalLanguageContents OPTIONAL,
    day-types                   SEQUENCE (SIZE(1..10)) OF SCH-DayType OPTIONAL, -- all if not
specified
    day-type-description        SCH-DayTypeDescription OPTIONAL,
    day-type-descriptionLangs   CPTAdditionalLanguageContents OPTIONAL,
    map                          PIMap OPTIONAL,
    other-info                  CPT-Footnote OPTIONAL,
    other-infoLangs             CPTAdditionalLanguageContents OPTIONAL,
    trip-entries                SEQUENCE (SIZE(1..1000)) OF SCHTimeTableTrip,
...
    -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[PIRouteInfo](#)

**The following messages directly use this data frame:**

[PiPushTextTimetable](#)  
[PiTextTimetable](#)

## B.214 Data Frame SCHActivationIden {SCH 1044}

### Use:

Uniquely identify a scheduled activation trigger whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHActivationIden ::= SEQUENCE {
    id                  SCH-ActivationID,
    ag                  CPT-AgencyID OPTIONAL,
    name                SCH-ActivationName OPTIONAL,
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,
    desig               SCH-ActivationDesignator OPTIONAL,
    desigLangs          CPTAdditionalLanguageContents OPTIONAL,
    agdesig             CPT-AgencyDesignator OPTIONAL,
    agdesigLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCDestinationSignRule](#)  
[PIEventAnnouncement](#)  
[SCHConsistChangeEvent](#)  
[SCHEvent](#)  
[SCHPatternInfo](#)

The following messages directly use this data frame:

[ObLocation](#)  
[SchEventChangeFile](#)

## B.215 Data Frame SCHActualRunTime {SCH 1004}

### Use:

Convey a single actual running time sample measurement.

### Remarks:

### ASN1:

```
SCHActualRunTime ::= SEQUENCE {
    weather                  ATIS.WeatherInformation OPTIONAL,
    start-time                CPT-DateTime, -- when the measurement started
    trip                      SCHTripIden,
    actual-time               CPT-Duration
}
```

The following data frames directly use this data frame:

[SCHActualRunningTimeData](#)

No messages were identified that directly use this data frame

## B.216 Data Frame SCHActualRunningTimeData {SCH 1003}

### Use:

Define actual running time measurements between a specified set of points.

### Remarks:

The scheduled field provides information about the running time as originally scheduled including identification of end points etc.

### ASN1:

```
SCHActualRunningTimeData ::= SEQUENCE {
    scheduled                SCHRunningTimeEntry,
    actuals                   SEQUENCE (SIZE(1..20000)) OF SCHActualRunTime
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchActualRunningTimes](#)

## B.217 Data Frame SCHAffectedStop {SCH 1049}

### Use:

Conveys a stoppoint that is affected by a service bulletin. Contains the trips that service this stoppoint and the scheduled departure times from this stoppoint.

### Remarks:

### ASN1:

```
SCHAffectedStop ::= SEQUENCE {
    stopID          CPTStoppointIden,
    tripID          SCHTripIden OPTIONAL,
    routeID         SCHRoutelen OPTIONAL,
    stopTime        SCH-Time OPTIONAL
}
```

The following data frames directly use this data frame:

[PIServiceBulletin](#)  
[SCHTripInfo](#)

No messages were identified that directly use this data frame

## B.218 Data Frame SCHBlockIden {SCH 1026}

### Use:

Uniquely identify a block whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHBlockIden ::= SEQUENCE {
    id              SCH-BlockID,
    ag              CPT-AgencyID OPTIONAL,
    desig           SCH-BlockDesignator OPTIONAL,
    desigLangs      CPTAdditionalLanguageContents OPTIONAL,
    name            SCH-BlockName OPTIONAL,
    nameLangs       CPTAdditionalLanguageContents OPTIONAL,
```

```

    agdesig          CPT-AgencyDesignator OPTIONAL,
    agdesigLangs    CPTAdditionalLanguageContents OPTIONAL
}

```

**The following data frames directly use this data frame:**

[CCBlockWorkRecord](#)  
[CCLogOnOperator](#)  
[CCPTVLocation](#)  
[CCVehicleAssignmentChange](#)  
[IMPTVehicleInvolved](#)  
[OBStoppointRecord](#)  
[SCHBlockScheduleEntry](#)  
[SCHBlockSubsetsGroup](#)  
[SCHOperatorAssignment](#)  
[SCHPullInOutInfo](#)  
[SCHTripInfo](#)  
[SCHValidationErrorResponse](#)  
[SCHVehicleAssignment](#)  
[TSPPRGInputsCCEntry](#)

**The following messages directly use this data frame:**

[CcLocationReport](#)  
[CcOperatorSignOff](#)  
[SchBlockScheduleFile](#)  
[SchBlockScheduleList](#)  
[SchBlockScheduleListSub](#)  
[SchPushBlockSchedule](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## B.219 Data Frame SCHBlockScheduleEntry {SCH 1037}

### Use:

Convey a set of scheduled trips for a vehicle work assignment (block).

### Remarks:

The day-types field indicates the day-types on which the vehicle assignment is scheduled to be executed. The begin-timepoint field, if present, indicates that the block begins at the specified timepoint in the first trip. The end-timepoint field, if present, indicates that the block ends at the specified timepoint in the last trip. Note that many agencies do not allow blocks to be scheduled to begin or end mid-trip. Trips are listed in the trip-details field in the order they are scheduled to be executed.

### ASN1:

```

SCHBlockScheduleEntry ::= SEQUENCE {
    block          SCHBlockIden,
    metadata       CPTRowMetaData,
    pullOutTime   SCH-Time OPTIONAL,
    pullInTime    SCH-Time OPTIONAL,
    beginTime     CPT-Time OPTIONAL,
    endTime       CPT-Time OPTIONAL,
    pullOutLocation LRMS.GeoLocation,
    pullInLocation LRMS.GeoLocation,
}

```

```
day-types          SEQUENCE (SIZE(1..20)) OF SCH-DayType,  
trip-details      SEQUENCE (SIZE(1..100)) OF SCHTripInfo,  
begin-timepoint   SCHTimepointIden OPTIONAL,  
end-timepoint     SCHTimepointIden OPTIONAL,  
block-notes       SEQUENCE (SIZE(1..100)) OF SCHNoteIden OPTIONAL,  
...   -- # LOCAL_CONTENT  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchBlockScheduleFile](#)  
[SchBlockScheduleList](#)  
[SchCommandScheduleChange](#)  
[SchPushBlockSchedule](#)

## B.220 Data Frame SCHBlockSubsetsGroup {SCH 1034}

**Use:**

Define an arbitrary, agency defined grouping of blocks (vehicle assignments). This group may share an origin, garage, serviced route or any other agency defined common attribute. A block can belong to more than one group.

**Remarks:**

**ASN1:**

```
SCHBlockSubsetsGroup ::= SEQUENCE {  
    group-id          SCH-BlockSubset,  
    metadata          CPTRowMetaData OPTIONAL,  
    group-name        CPT-GroupName,  
    group-nameLangs   CPTAdditionalLanguageContents OPTIONAL,  
    group-members     SEQUENCE (SIZE(1..50000)) OF SCHblockIden,  
    group-memo        CPT-Footnote OPTIONAL,  
    group-memoLangs   CPTAdditionalLanguageContents OPTIONAL  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchBlockSubsets](#)

## B.221 Data Frame SCHCalendarEntry {SCH 1025}

### Use:

Define the type(s) of a day for a schedule.

### Remarks:

Each day may have multiple assigned day types. Similarly each trip (SCHTripInfo) may have multiple day types. If any of the day types associated with a trip matches any of the day types associated with a calendar date, then the trip is scheduled to be run on that calendar date. If the names field is present, it shall contain the same number of entries as the types field, and there shall be a one-to-one correspondence between the items in the two lists. The names field allows names to be provided directly rather than via a lookup in the tcip or local schema, and allows an agency to override a name assigned in the schema. The exceptions field identifies exceptions to the specified service type(s) for the date. These exceptions link to exception lists that may be present in the definition of scheduled trips, allowing the scheduler to specify that specific trips or groups of trips be added to the daily service.

### ASN1:

```
SCHCalendarEntry ::= SEQUENCE {
    date                      CPT-Date,
    types                     SEQUENCE (SIZE(1..20)) OF SCH-DayType,
    names                     SEQUENCE (SIZE(1..20)) OF SCH-DayTypeDescription OPTIONAL,
    namesLangs                SEQUENCE (SIZE(1..20)) OF CPTAdditionalLanguageContents OPTIONAL,
    agency                    CPT-AgencyID OPTIONAL,
    exceptions               SEQUENCE (SIZE(1..24)) OF SCHCalendarException OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchCalendar](#)  
[SchCalendarFile](#)  
[SchPushCalendar](#)

## B.222 Data Frame SCHCalendarException {SCH 1045}

### Use:

This frame is used to specify that an exception to scheduled service is in effect for a calendar date.

### Remarks:

### ASN1:

```
SCHCalendarException ::= SEQUENCE {
    exceptionID          SCH-ExceptionID,
    exceptionName        SCH-ExceptionName OPTIONAL,
    exceptionNameLangs   CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[SCHCalendarEntry](#)

**No messages were identified that directly use this data frame**

## B.223 Data Frame SCHConsistChangeEvent {SCH 1053}

### Use:

This data frame describes a scheduled change, or the past occurrence of a change to the consist of a rail vehicle.

### Remarks:

The SCHActivationIden allows the consist change to be linked to an event in a pattern, pattern segment, or an individual trip.

### ASN1:

```
SCHConsistChangeEvent ::= SEQUENCE {
    actID                  SCHActivationIden OPTIONAL,
    trainID                CPTTrainIden OPTIONAL,
    metadata               CPTRowMetaData OPTIONAL,
    changeTypes            SCH-ConsistChangeType,
    addCarCount            CPT-GenericCounter,
    cutCarCount            CPT-GenericCounter,
    addCarIDs              CPTVehicleIden OPTIONAL,
    cutCarIDs              SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    consistBefore           SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    consistAfter            SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    location                LRMS.GeoLocation OPTIONAL,
```

```

schTime           SCH-Time OPTIONAL, -- -- for a scheduled change, the time it is
scheduled
time
was completed
timepoint
change
note
the change
}

```

[SCH-Time](#) OPTIONAL, -- -- for a scheduled change, the time it is  
[CPT-DateTime](#) OPTIONAL, -- -- for an actual, the time the change  
[SCHTimepointIden](#) OPTIONAL, -- -- timepoint associated with the  
[SCHNoteIden](#) OPTIONAL -- -- identifier for a note associated with

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[CcPTVPerformanceData](#)  
[CcPTVTrips](#)  
[SchBlockScheduleFile](#)  
[SchBlockScheduleList](#)  
[SchEventChangeFile](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushBlockSchedule](#)  
[SchPushPatterns](#)  
[SchPushRunSchedule](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleFile](#)  
[SchRunScheduleFile](#)  
[SchRunScheduleList](#)

## B.224 Data Frame SCHEvent {SCH 1051}

**Use:**

A message that activates an event at a specified time, location, or both.

**Remarks:**

Events may be associated with a pattern, a pattern segment or a trip. If an event is associated with a pattern segment, it is inherited by using patterns and trips. Events associated with a pattern are inherited by using trips. The proximity field, if present, indicates how near the location specified by point must be approached for the trigger to occur. The trip offset field, if present, indicates the distance between the start of a trip (or pattern) and the location of the event, measured along the expected trajectory of the PTV. The segmentOffset field, , if present, indicates the distance between the start of a pattern segment and the location of the event, measured along the expected trajectory of the PTV.

**ASN1:**

```

SCHEvent ::= SEQUENCE {
  eventID           SCHEventIden,
  activationIDs    SEQUENCE (SIZE(1..10)) OF SCHActivationIden,
  time-begin        SCH-Time OPTIONAL,
  point             LRMS.GeoLocation OPTIONAL,
  proximity         LRMS.Distance OPTIONAL,
  activation-types  SEQUENCE (SIZE(1..10)) OF SCH-ActivationType OPTIONAL,
}

```

```

fare-zone-id          FCFareZoneIden OPTIONAL,
radio-zone-id         CPT-RadioZoneID OPTIONAL,
tripOffset            LRMS.Distance OPTIONAL,
segmentOffset         LRMS.Distance OPTIONAL
}

```

**The following data frames directly use this data frame:**

[CCPTVTripData](#)  
[SCHEventChange](#)  
[SCHPatternInfo](#)  
[SCHPatternSegment](#)  
[SCHTripInfo](#)

**No messages were identified that directly use this data frame**

## B.225 Data Frame SCHEventChange {SCH-1055}

### Use:

This data frame conveys which previously provided SCHEvent frames need to be added, updated, or deleted and in which pattern(s), segment(s), or trips(s).

### Remarks:

When a pattern, segment, and/or trip identifier is present in this frame; it implies that event lists within the corresponding pattern, segment, or trip should be populated based on this frame. If the events listed in this frame are not found, they should be added to the Pattern File or Block Schedule File in the corresponding pattern, segment, and/or trip event list. Events can be specified on a high level for a pattern, on a lower level for segments, or specified on certain trips within a pattern. If the events are specified on the trip level they will be reflected in the SchBlockScheduleFile, SchBlockScheduleList, and/or SchPushBlockSchedule; otherwise the events will be found in the SchPatternFile, SchPatternList, and/or SchPushPattern.

### ASN1:

```

SCHEventChange ::= SEQUENCE {
  events           SCHEvent,
  patterns         SEQUENCE (SIZE(1..2000)) OF SCHPatternIden OPTIONAL,
  segments         SEQUENCE (SIZE(1..2000)) OF SCHPatternSegmentIden OPTIONAL,
  trips            SEQUENCE (SIZE(1..25000)) OF SCHTripIden OPTIONAL
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchEventChangeFile](#)

## B.226 Data Frame SCHEventIden {SCH 1054}

### Use:

Uniquely identify a schedule event whether in a single, or multi agency environment.

### Remarks:

All comparisons of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHEventIden ::= SEQUENCE {
    id                      SCH-EventID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[SCHEvent](#)

The following messages directly use this data frame:

[SchEventChangeFile](#)

## B.227 Data Frame SCHNoteIden {SCH 1029}

### Use:

Uniquely identify a schedule note whether in a single, or multi agency environment.

### Remarks:

All comparisons of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHNoteIden ::= SEQUENCE {
    id                      SCH-NoteID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   SCH-NoteDesignator OPTIONAL,
```

```
desigLangs          CPTAdditionalLanguageContents OPTIONAL,  
agdesig           CPT-AgencyDesignator OPTIONAL,  
agdesigLangs      CPTAdditionalLanguageContents OPTIONAL,  
pointLatitude     LRMS.Latitude OPTIONAL,  
pointLongitude    LRMS.Longitude OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[CPTStoppoint](#)  
[PITimetableTimepoint](#)  
[SCHBlockScheduleEntry](#)  
[SCHConsistChangeEvent](#)  
[SCHNoteInfo](#)  
[SCHOperatorAssignment](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHPatternInfo](#)  
[SCHPatternSegment](#)  
[SCHRanScheduleEntry](#)  
[SCHTimeTableTrip](#)  
[SCHTimeTableTripTP](#)  
[SCHTimepointInfo](#)  
[SCHTransferInfo](#)  
[SCHTripInfo](#)  
[SCHVehicleAssignment](#)

**The following messages directly use this data frame:**

[SchPushRouteSchedule](#)

## B.228 Data Frame SCHNoteInfo {SCH 1005}

**Use:**

Provide a text note associated with scheduling information.

**Remarks:**

Provides the text associated with a note. Notes are included in various scheduling messages as links to the associated text. The public field indicates whether the note may be published to the public (e.g. with a timetable).

**ASN1:**

```
SCHNoteInfo ::= SEQUENCE {  
    note           SCHNoteIden,  
    metadata       CPTRowMetaData OPTIONAL,  
    public         CPT-Boolean,  
    note-text     SCH-NoteMsg,  
    note-textLangs CPTAdditionalLanguageContents OPTIONAL,  
    pointLatitude  LRMS.Latitude OPTIONAL,  
    pointLongitude LRMS.Longitude OPTIONAL,  
    ...  -- # LOCAL_CONTENT  
}
```

**The following data frames directly use this data frame:**

[CCPTVTripData](#)  
[PIRouteInfo](#)  
[SCHPTVRouteScheduleEntry](#)

**The following messages directly use this data frame:**

[CptStoppointsFile](#)  
[PiPushTextTimetable](#)  
[PiTextTimetable](#)  
[SchBlockScheduleFile](#)  
[SchBlockScheduleList](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushBlockSchedule](#)  
[SchPushPatterns](#)  
[SchPushRouteSchedule](#)  
[SchPushRunSchedule](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleFile](#)  
[SchRunScheduleFile](#)  
[SchRunScheduleList](#)  
[SchTimepointList](#)  
[SchTimepointsFile](#)

## B.229 Data Frame SCHOperatorAssignment {SCH 1007}

### Use:

Group together the information required to describe an operator's work assignment, or a work assignment for which an operator has not yet been identified.

### Remarks:

The fields :beginTime, endTime, beginLocation, endLocation, agency, operator-base, and vehicle-base are optional and available to meet individual agencies' needs. The assignment is scheduled to be executed on any day matching any of the listed day types in the day-types field.

Additional information about the trips referenced in the trips field can be obtained using the Publish Route Schedule, Publish Block Schedule, Publish Run Schedule, and/or Publish Trip Detail dialogs.

The begin-timepoint field is used if an operator is assigned to take over (relieve another operator) in the middle of a trip at a designated timepoint. Similarly end-timepoint is used only if the operator assignment ends in the middle of a trip at the designated timepoint.

The other-employees field specifies other transit employees that are scheduled to accompany the operator on the PTV. This may include conductors fare verifiers or other agency-defined jobs.

### ASN1:

```
SCHOperatorAssignment ::= SEQUENCE {
    run                  SCHRUnIden,
    metadata             CPTRowMetaData OPTIONAL,
    operator              CPTOperatorIden OPTIONAL,
    base                 CPTOperatorBaseIden OPTIONAL,
    other-employees      SEQUENCE (SIZE(1..10)) OF CPTEmployeeIden OPTIONAL,
    vehicle               CPTVehicleIden OPTIONAL,
```

```

beginTime           CPT-Time OPTIONAL,
endTime             CPT-Time OPTIONAL,
beginLocation      LRMS.GeoLocation OPTIONAL,
endLocation        LRMS.GeoLocation OPTIONAL,
vehicle-base       CPTTransitFacilityIden OPTIONAL,
operator-base      CPTOperatorBaseIden OPTIONAL,
trips               SEQUENCE (SIZE(1..100)) OF SCHTripIden,
begin-timepoint    SCHTimepointIden OPTIONAL,
end-timepoint      SCHTimepointIden OPTIONAL,
run-type            SCH-RunType,
day-types           SEQUENCE (SIZE(1..20)) OF SCH-DayType,
note                SCHNoteIden OPTIONAL,
associated-blocks SEQUENCE (SIZE(1..10)) OF SCHBlockIden OPTIONAL,
expected-pays      SEQUENCE (SIZE(1..20)) OF SCHOperatorPay OPTIONAL,
mode                CPT-Mode OPTIONAL,
... -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchOperatorAssignmentFile](#)  
[SchOperatorAssignmentList](#)  
[SchPushOperatorAssignments](#)

## B.230 Data Frame SCHOperatorPay {SCH 1035}

**Use:**

Capture the scheduled or actual number of hours of pay of a specified pay type within an operator assignment or roster.

**Remarks:**

Although pay is calculated in hours, different agencies allow for different granularity of fractions of hours. The time field is expressed in seconds, allowing agencies to adopt any granularity down to that level.

**ASN1:**

```

SCHOperatorPay ::= SEQUENCE {
  type          SCH-PayType,
  time          CPT-Duration,
  amount        FC-MonetaryInstrValue OPTIONAL
}

```

**The following data frames directly use this data frame:**

[SCHOperatorAssignment](#)  
[SCHRosterDayEntry](#)

**No messages were identified that directly use this data frame**

## B.231 Data Frame SCHPTVRouteScheduleEntry {SCH 1019}

### Use:

Convey schedule information for a specified route to a PTV as part of its data load.

### Remarks:

Agencies may elect to load all routes to a vehicle, only routes the vehicle is expected to service or only routes serviced by the vehicle's garage. Similarly agencies may elect to include all schedule trips for a route, or only trips to which the PTV has been assigned.

The route-designator, and route-id-short fields provide additional information which may be useful for some agencies but are not required to achieve the schedule unload. The defaultAPattern and defaultBPattern fields define the movement patterns normally associated with this route. Optional fields direction-A, and direction-B allow the directions described in the paragraph to be named with standard names (e.g. N, NW, S, SE, Counterclockwise). Some agencies vary the patterns on a route from trip to trip or by time of day. Trips which execute a pattern other than the default pattern (for the A or B direction), should include a trip pattern in the SCHTripInfo data frame defining the trip.

The route-notes field provides references to text notes that are relevant to this route as a whole. The notes field conveys the text of notes that may be referred to by the route-notes field, or by note references in the trips defined by a SCHTripInfo frame conveyed by this frame.

The SCHTripIden shall be unique for each trip in an agency's schedule, thus the same SCH-TripID, CPT-AgencyID combination shall not appear more than once within a schedule for an agency.

### ASN1:

```
SCHPTVRouteScheduleEntry ::= SEQUENCE {
    route                  SCHRouteIden,
    metadata               CPTRowMetaData OPTIONAL,
    version                SCH-TimetableVersionID OPTIONAL,
    route-ID-short         CC-RouteIDShort OPTIONAL,
    route-notes            SEQUENCE (SIZE(1..100)) OF SCHNoteIden OPTIONAL,
    direction-A            SCH-RouteDirectionName OPTIONAL,
    direction-ALangs       CPTAdditionalLanguageContents OPTIONAL,
    direction-B            SCH-RouteDirectionName OPTIONAL,
    direction-BLangs       CPTAdditionalLanguageContents OPTIONAL,
    defaultAPattern        SCHPatternIden OPTIONAL,
    defaultBPattern        SCHPatternIden OPTIONAL,
    scheduledATrips        SEQUENCE (SIZE(1..10000)) OF SCHTripInfo OPTIONAL,
    scheduledBTrips        SEQUENCE (SIZE(1..10000)) OF SCHTripInfo OPTIONAL,
    notes                  SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    deletedATrips          SEQUENCE (SIZE(1..10000)) OF SCHTripIden OPTIONAL,
    deletedBTrips          SEQUENCE (SIZE(1..10000)) OF SCHTripIden OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchRouteScheduleFile](#)

## B.232 Data Frame SCHPatternIden {SCH 1028}

### Use:

Uniquely identify a pattern whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHPatternIden ::= SEQUENCE {
    id                      SCH-PatternID,
    ag                      CPT-AgencyID OPTIONAL,
    desig                   SCH-PatternDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    name                    SCH-PatternName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCDestinationSignRule](#)  
[CCPTVTripData](#)  
[CCPollResponseContents](#)  
[CCRoutewelcomeAnnouncement](#)  
[PiPatternServiceEntry](#)  
[PIStopPatternRouteEntry](#)  
[SCHEventChange](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHPatternInfo](#)  
[SCHRunningTimeEntry](#)  
[SCHTripInfo](#)  
[SCHValidationError](#)

The following messages directly use this data frame:

[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[PiPatternService](#)  
[PiPatternServiceSub](#)  
[SchActualRunningTimes](#)  
[SchActualRunningTimesSub](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushPatterns](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)  
[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## B.233 Data Frame SCHPatternInfo {SCH 1047}

### Use:

Provide a structure to define a pattern of stop and time points. Patterns may be combined to form routes. Pattern definitions may (based on agency policy) include timepoints only and no stoppoints.

### Remarks:

The pattern notes field provides an optional capability to provide a reference to a text notes about the pattern.

The triggers field provides an optional capability to identify events to be triggered during the execution of the pattern.

The mode field provides an optional capability to specify a mode for the pattern. For example a street with bus and light rail service might have two similar patterns with different stoppoints and modes.

The segmentOffsets field, if present, must contain the exact same number of entries as the segments field, and each entry indicates the offset distance from the start of the pattern to the start of the corresponding segment entry. Normally the first offset will be zero, and the subsequent values will be equal to the cumulative lengths of the preceding segments. Offset values are measured along the expected trajectory of the PTV along the route. The events field allows events to be associated with the pattern.

### ASN1:

```
SCHPatternInfo ::= SEQUENCE {
    pattern                  SCHPatternIden,
    metadata                 CPTRowMeta OPTIONAL,
    pattern-notes            SEQUENCE (SIZE(1..100)) OF SCHNoteIden OPTIONAL,
    triggers                 SEQUENCE (SIZE(1..200)) OF SCHActivationIden OPTIONAL,
    segments                 SEQUENCE (SIZE(1..100)) OF SCHPatternSegmentIden,
    segmentOffsets           SEQUENCE (SIZE(1..100)) OF LRMS.Distance OPTIONAL,
    events                   SEQUENCE (SIZE(1..200)) OF SCHEvent OPTIONAL,
    eventOffsets             SEQUENCE (SIZE(1..200)) OF LRMS.Distance OPTIONAL,
    route                    SCHRouteIden OPTIONAL,
    routeDirection           SCH-RouteDirectoryName OPTIONAL,
    routeDirectionLangs      CPTAdditionalLanguageContents OPTIONAL,
    destination              CPT-Footnote OPTIONAL,
    destinationLangs         CPTAdditionalLanguageContents OPTIONAL,
    modes                    SEQUENCE (SIZE(1..5)) OF CPT-Mode OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchCommandScheduleChange](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushPatterns](#)

## B.234 Data Frame SCHPatternSegment {SCH 1018}

### Use:

Provide a structure to define a list of time and stop points. Pattern segments can be combined to form patterns. Pattern segments may contain timepoints only and not specify stoppoints based on agency policy.

### Remarks:

The timestamppoints field conveys the time-ordered list of timepoints (and optionally stoppoints) occurring within the pattern segment. Schedule times (in SchTripInfo) are associated with timepoints, but not stoppoints in the list. A required wait (dwell) at a stoppoint can be defined in the timeStoppoints by including a timepoint twice along with a nearby stoppoint between the two timepoint instances. Note that the stoppoint may be associated with the timepoint and vice versa. The times assigned to the two timepoint instances are used to reflect scheduled arrival and departure times at the bracketed stoppoint. A stoppoint may be linked to a timepoint, and a timepoint may be linked to a series of stoppoints (see CPTStoppoint and SCHTimepointInfo). The trace-points field provides a directed sequence of geographical points that can be used to map the shape of the route segment. The trace-links field allows the segment to be characterized as a directed sequence of links and nodes.

### ASN1:

```
SCHPatternSegment ::= SEQUENCE {
    segment                  SCHPatternSegmentIden,
    metadata                 CPTRowMeta OPTIONAL,
    segment-notes            SEQUENCE (SIZE(1..20)) OF SCHNoteIden OPTIONAL,
    timeStoppoints           SEQUENCE (SIZE(1..3000)) OF SCHTimeStoppoint,
    trace-points             SEQUENCE (SIZE(1..3000)) OF LRMS.GeoLocation OPTIONAL,
    tracepointOffsets        SEQUENCE (SIZE(1..3000)) OF LRMS.Distance OPTIONAL,
    trace-links              SEQUENCE (SIZE(1..3000)) OF SPLink OPTIONAL,
    tracelinkOffsets         SEQUENCE (SIZE(1..1000)) OF LRMS.Distance OPTIONAL,
    drive-directions         SEQUENCE (SIZE(1..100)) OF ATIS.ManeuverInstruction OPTIONAL,
    events                   SEQUENCE (SIZE(1..200)) OF SCHEvent OPTIONAL,
    eventOffsets             SEQUENCE (SIZE(1..200)) OF LRMS.Distance OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchCommandScheduleChange](#)  
[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushPatterns](#)

## B.235 Data Frame SCHPatternSegmentIden {SCH 1027}

### Use:

Uniquely identify a pattern segment whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHPatternSegmentIden ::= SEQUENCE {
    id                      SCH-PatternSegmentID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    SCH-PatternName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                  CPT-GenericDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCPollResponseContents](#)  
[OBStoppointRecord](#)  
[SCHEventChange](#)  
[SCHPatternInfo](#)  
[SCHPatternSegment](#)  
[SCHRunningTimeEntry](#)  
[SCHValidationErrorResponse](#)  
[SPSegmentGeolocation](#)

The following messages directly use this data frame:

[SchPatternFile](#)  
[SchPatternList](#)  
[SchPushPatterns](#)  
[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## B.236 Data Frame SCHPullInOutInfo {SCH 1014}

### Use:

Provide information describing a pull in or pull out.

### Remarks:

The pull-in field indicates whether the block instance represents a pull in or pull out. If true the information describes a pull-in, if false the information describes a pull out.

The garage field identifies the garage where the pull in or pull out occurs.

The vehicle field identifies the vehicle to pull in or out.

The operator-ID field or the operator-des field identifies the operator involved in the pull in or pull out. At least one of these fields must be present. Both may optionally be present.

The date and time fields indicate when the pull in or pull out is scheduled to occur.

The trip field provides an optional capability to associate the pull in or pull out with a trip. For a pull out, the trip represents the first assigned trip after the pull out. For a pull in, the trip represents the last trip assigned prior to the scheduled pull in.

### ASN1:

```
SCHPullInOutInfo ::= SEQUENCE {
    pull-in                  CPT-Boolean,
    garage                   CPTTransitFacilityIden,
    vehicle                  CPTVehicleIden OPTIONAL,
    operator                 CPTOperatorIden OPTIONAL,
    date                     CPT-Date,
    time                     CPT-DateTime,
    note                     CPT-Footnote OPTIONAL,
    noteLangs                CPTAdditionalLanguageContents OPTIONAL,
    trip                     SCHTripIden OPTIONAL,
    run                      SCHRUnIden OPTIONAL,
    block                    SCHBlockIden OPTIONAL,
    parking-location          CPTParkingSpace OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchPullInList](#)  
[SchPullOutList](#)

## B.237 Data Frame SCHRoster {SCH 1052}

### Use:

Daily operator assignments grouped into weekly assignment packages.

### Remarks:

### ASN1:

```
SCHRoster ::= SEQUENCE {
    metadata                  CPTRowMetaData OPTIONAL,
    identifier                SCHRosterIden,
    dayEntrys                 SEQUENCE (SIZE(1..7)) OF SCHRosterDayEntry OPTIONAL,
    operator                   CPToperatorIden OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchPushRoster](#)  
[SchRosterList](#)

## B.238 Data Frame SCHRosterDayEntry {SCH 1046}

### Use:

Defines the work for a day in the week for a specified roster.

### Remarks:

### ASN1:

```
SCHRosterDayEntry ::= SEQUENCE {
    run                      SCHRunIden OPTIONAL,
    identifier                SCHRosterIden OPTIONAL,
    day                      CPT-DayofWeek,
    expected-pays             SEQUENCE (SIZE(1..25)) OF SCHoperatorPay OPTIONAL,
    extraBoard                CPT-Boolean,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[SCHRoster](#)

**No messages were identified that directly use this data frame**

## B.239 Data Frame SCHRosterIden {SCH 1057}

### Use:

Uniquely identify a schedule roster whether in a single, or multi agency environment.

### Remarks:

### ASN1:

```
SCHRosterIden ::= SEQUENCE {
    id                      SCH-RosterID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   SCH-RosterDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[SCHRoster](#)  
[SCHRosterDayEntry](#)

No messages were identified that directly use this data frame

## B.240 Data Frame SCHRouteIden {SCH 1031}

### Use:

Uniquely identify a scheduled route whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHRouteIden ::= SEQUENCE {
    id                      SCH-RouteID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    SCH-RouteName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   SCH-RouteDesignator OPTIONAL,
```

```
desigLangs          CPTAdditionalLanguageContents OPTIONAL,  
agdesig           CPT-AgencyDesignator OPTIONAL,  
agdesigLangs      CPTAdditionalLanguageContents OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[CCConnProtLogEntry](#)  
[CCDestinationSignMessage](#)  
[CCDetourRecord](#)  
[CCLogOnOperator](#)  
[CCPTVLocation](#)  
[CCPollResponseContents](#)  
[CCWheelchairLogEntry](#)  
[CPTFileApplicability](#)  
[CPTStoppoint](#)  
[FCAccreditedTransferRecord](#)  
[FCFareDefinitionRecord](#)  
[FCPassengerCountRecord](#)  
[OBStoppointRecord](#)  
[PIAccessibility](#)  
[PIAnnouncement](#)  
[PICustSubscription](#)  
[PINearestStop](#)  
[PINearestStopRequest](#)  
[PIPTVDelayed](#)  
[PIRecurringTripSegment](#)  
[PIRouteInfo](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIService](#)  
[PIServiceBulletin](#)  
[PIServiceDelayed](#)  
[PIServiceStatusRequest](#)  
[PIStopPatternRouteEntry](#)  
[PIXMLTimetable](#)  
[SCHAffectedStop](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHPatternInfo](#)  
[SCHRouteVersion](#)  
[SCHServiceAtStop](#)  
[SCHTripDetailInfo](#)  
[SCHTripInfo](#)  
[SCHValidationReport](#)  
[TSPStatus](#)

**The following messages directly use this data frame:**

[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[CcConnProtAck](#)  
[CcConnProtAppr](#)  
[CcConnProtDeny](#)  
[CcConnProtReq](#)  
[CcConnProtWait](#)  
[CcFleetMechanicalData](#)  
[CcFleetMechanicalDataSub](#)  
[CcFleetPassengerData](#)  
[CcFleetPassengerDataSub](#)  
[CcLocationReport](#)

[CcPTVTrips](#)  
[CcTravelerRequestLog](#)  
[CcTravelerRequestLogSub](#)  
[CcWheelchairAck](#)  
[CcWheelchairAppr](#)  
[CcWheelchairDeny](#)  
[CcWheelchairPickup](#)  
[CcWheelchairReq](#)  
[CptShelterList](#)  
[CptShelterListSub](#)  
[CptStoppointList](#)  
[CptStoppointListSub](#)  
[CptTransferClusterList](#)  
[CptTransferClusterListSub](#)  
[FcPassengerData](#)  
[FcPassengerDataSub](#)  
[ImIncidentHistory](#)  
[ImIncidentHistorySub](#)  
[ImIncidentList](#)  
[ImIncidentListSub](#)  
[PiAccessibilityList](#)  
[PiAccessibilityListSub](#)  
[PiAgencyFiles](#)  
[PiAgencyFilesSub](#)  
[PiAmenitiesList](#)  
[PiAmenitiesListSub](#)  
[PiAnnouncementsList](#)  
[PiAnnouncementsListSub](#)  
[PiGTFSData](#)  
[PiGTFSDataSub](#)  
[PiMailingList](#)  
[PiMailingListSub](#)  
[PiPushTextTimetable](#)  
[PiRouteList](#)  
[PiRouteListSub](#)  
[PiServiceBulletinsList](#)  
[PiServiceBulletinsListSub](#)  
[PiTextTimetable](#)  
[PiTextTimetableSub](#)  
[SchActualRunningTimes](#)  
[SchActualRunningTimesSub](#)  
[SchMasterScheduleVersion](#)  
[SchMasterScheduleVersionSub](#)  
[SchOperatorAssignmentList](#)  
[SchOperatorAssignmentListSub](#)  
[SchPullInList](#)  
[SchPullInListSub](#)  
[SchPullOutList](#)  
[SchPullOutListSub](#)  
[SchPushMasterScheduleVersion](#)  
[SchPushRouteSchedule](#)  
[SchRosterList](#)  
[SchRosterListSub](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleFile](#)  
[SchRouteScheduleSub](#)  
[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)  
[SchVehicleAssignmentList](#)  
[SchVehicleAssignmentListSub](#)

## B.241 Data Frame SCHRouteVersion {SCH 1000}

### Use:

Identify the correct version of timetable information for a specified route, and date interval. This information allows business systems to query for and obtain the correct schedule information for use at any point in time.

### Remarks:

Route Schedule defines trips, which reference patterns, which reference timepoints and possibly stoppoints. This frame provides effective datetimes for the route schedule , and the corresponding timepoints, pattern and stops (artifacts). Optionally is also provides version identifiers, expiration datetimes, and last update datetimes for each artifact. Eff fields indicate effective datetime - exp fields indicate expiration datetime - version fields provide a version ID number - update fields indicate last update date time.

### ASN1:

```
SCHRouteVersion ::= SEQUENCE {
    route                  SCHRouteIden,
    metadata               CPTRowMetaData OPTIONAL,
    route-sched-eff       CPT-Datetime,
    route-sched-exp       CPT-Datetime OPTIONAL,
    route-sched-version   SCH-TimetableVersionID OPTIONAL,
    route-sched-update    CPT-Datetime,
    timepoint-eff          CPT-Datetime OPTIONAL,
    timepoint-exp          CPT-Datetime OPTIONAL,
    timepoint-version      SCH-TimetableVersionID OPTIONAL,
    timepoint-update        CPT-Datetime OPTIONAL,
    pattern-eff            CPT-Datetime OPTIONAL,
    pattern-exp            CPT-Datetime OPTIONAL,
    pattern-version         SCH-TimetableVersionID OPTIONAL,
    pattern-update          CPT-Datetime OPTIONAL,
    stoppoint-eff           CPT-Datetime OPTIONAL,
    stoppoint-exp           CPT-Datetime OPTIONAL,
    stoppoint-version        SCH-TimetableVersionID OPTIONAL,
    stoppoint-update         CPT-Datetime OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchPushMasterScheduleVersion](#)  
[SchReportValidationErrors](#)  
[SchReportValidationErrorsAck](#)

## B.242 Data Frame SCHRunIden {SCH 1033}

### Use:

Uniquely identify a scheduled run (operator assignment) whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHRunIden ::= SEQUENCE {
    id                      SCH-RunID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   SCH-RunDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCLogOnOperator](#)  
[CCOperatorAssignmentChange](#)  
[CCPTVLocation](#)  
[CCRouteDeviationRecord](#)  
[CCSignOnOff](#)  
[CCTimepointHistory](#)  
[IMPTVehicleInvolved](#)  
[PIFoundItem](#)  
[PILostItem](#)  
[SCHOperatorAssignment](#)  
[SCHPullInOutInfo](#)  
[SCHRosterDayEntry](#)  
[SCHRunScheduleEntry](#)  
[SCHTripInfo](#)  
[SCHValidationErrors](#)  
[TSPStatus](#)

The following messages directly use this data frame:

[CcLocationReport](#)  
[CcOperatorSignOff](#)  
[SchPushRunSchedule](#)  
[SchRunScheduleFile](#)  
[SchRunScheduleList](#)  
[SchRunScheduleListSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## B.243 Data Frame SCHRunScheduleEntry {SCH 1036}

### Use:

Convey a set of scheduled trips for an operator assignment (run).

### Remarks:

The day-types field indicates the day-types on which the operator assignment is scheduled to be executed. The begin-timepoint field, if present, indicates that the run begins at the specified timepoint in the first trip. The end-timepoint field, if present, indicates that the run ends at the specified timepoint in the last trip. Note that many agencies do not allow reliefs to occur (runs to begin/end) mid-trip. Trips are listed in the trip-details field in the order they are scheduled to be executed.

### ASN1:

```
SCHRunScheduleEntry ::= SEQUENCE {
    run                  SCHRUnIden,
    metadata             CPTRowMetadata,
    beginTime            CPT-Time OPTIONAL,
    endTime               CPT-Time OPTIONAL,
    schBeginTime         SCH-Time OPTIONAL,
    schEndTime            SCH-Time OPTIONAL,
    beginLocation        LRMS.GeoLocation,
    endLocation           LRMS.GeoLocation,
    day-types             SEQUENCE (SIZE(1..20)) OF SCH-DayType,
    trip-details          SEQUENCE (SIZE(1..100)) OF SCHTripInfo,
    begin-timepoint       SCHtimepointIden OPTIONAL,
    end-timepoint         SCHtimepointIden OPTIONAL,
    run-notes              SEQUENCE (SIZE(1..100)) OF SCHNoteIden OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchPushRunSchedule](#)  
[SchRunScheduleFile](#)  
[SchRunScheduleList](#)

## B.244 Data Frame SCHRunningTimeEntry {SCH 1020}

### Use:

Define the scheduled or expected running time for a specified part of a route. The part may be specified as a pattern, pattern segment, or pair of time/stoppoints.

### Remarks:

The service-types, earliest-time, latest-time, and conditions and weather fields (if present) specify constraints that must be met for the running time to be valid. The running time is specified for an interval specified by stoppoint A to stoppoint B, or timepointA to timepointB or for a pattern, or pattern segment.

### ASN1:

```
SCHRunningTimeEntry ::= SEQUENCE {
    period-name                      SCH-RunningTimePeriodName OPTIONAL,
    period-nameLangs                  CPTAdditionalLanguageContents OPTIONAL,
    service-types                     SEQUENCE (SIZE(1..10)) OF SCH-ServiceType OPTIONAL,
    earliest-time                     SCH-Time OPTIONAL,
    latest-time                       SCH-Time OPTIONAL,
    day-types                          SEQUENCE (SIZE(1..10)) OF SCH-DayType OPTIONAL,
    stoppointA                         CPTStoppointIden OPTIONAL,
    stoppointB                         CPTStoppointIden OPTIONAL,
    timepointA                         SCHTimepointIden OPTIONAL,
    timepointB                         SCHTimepointIden OPTIONAL,
    pattern                            SCHPatternIden OPTIONAL,
    pattern-segment                   SCHPatternSegmentIden OPTIONAL,
    running-time                      CPT-Duration,
    waiting-times                     SEQUENCE (SIZE(1..20)) OF SCHWaitingTime OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[SCHActualRunningTimeData](#)

**The following messages directly use this data frame:**

[SchPushRunningTimes](#)  
[SchRunningTimeList](#)

**B.245 Data Frame SCHServiceAtStop {SCH 1008}****Use:**

Describes the scheduled service provided at a stop. A series of these used in a message can be used to describe all of the service available at a stop point for a specified period.

**Remarks:**

Route and route-direction fields describe the route and direction that the vehicle is scheduled to be on when it makes the stop.

The route-version field defines the version of the timetable for the service at the stop during the specified period.

The stop-id and optionally the stop-name field describe the stoppoint.

The trip-id identifies the trip that serves the stop.

The time field may be a calculated, derived offset from a scheduled timepoint to identify when a trip will serve a stoppoint. Route, route direction and optionally route name describe the route and direction of the scheduled service that is provided at the stop.

**ASN1:**

```
SCHServiceAtStop ::= SEQUENCE {
    route                  SCHRouteIden,
    route-direction        SCH-RouteDirectionName,
    route-directionLangs   CPTAdditionalLanguageContents OPTIONAL,
    route-version          SCH-TimetableVersionID OPTIONAL,
    effective              CPT-DateTime,
    stoppoint               CPTStoppointIden,
    trip                   SCHTripIden,
    time                   SCH-Time,
    date                   CPT-Date OPTIONAL,
    associated-timepoint    SCHTimepointIden OPTIONAL,
    day-types              SEQUENCE (SIZE(1..20)) OF SCH-DayType OPTIONAL
}
```

**The following data frames directly use this data frame:**

[SCHTransferInfo](#)

**The following messages directly use this data frame:**

[SchStopServiceList](#)

## B.246 Data Frame SCHStoppointPair {SCH 1021}

### Use:

Identify a pair of stoppoints for the purpose of specifying scheduled or estimated running time between them.

### Remarks:

### ASN1:

```
SCHStoppointPair ::= SEQUENCE {
    stoppointA          CPTStoppointIden,
    stoppointB          CPTStoppointIden
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)

## B.247 Data Frame SCHTimeStoppoint {SCH 1002}

### Use:

Provide a structure to define a sequence of stop points and time points. The structure must allow interweaving of stop points and time points.

### Remarks:

Each instance of this structure must include either a timepoint-id or a stoppoint, but not both. Agencies may elect to include ONLY timepoints in their pattern definitions. The offset field, if present, indicates the distance from the start of the pattern segment to the location of the identified timepoint or stoppoint, measured along the expected trajectory of the PTV.

Affected gatebay field is intended for use with a service bulletin.

The scheduled GateBay field indicates the gate, bay, or track number where the vehicle is expected to be available for boarding or debarking.

### ASN1:

```
SCHTimeStoppoint ::= SEQUENCE {
    timepoint-id        SCHTimepointIden OPTIONAL,
    stoppoint           CPTStoppointIden OPTIONAL,
    offset              LRMS.Distance OPTIONAL,
    affected_gate-bays SEQUENCE (SIZE(1..50)) OF CPT-GenericCounter OPTIONAL,
    scheduled_gate-bay  CPT-GenericCounter OPTIONAL
```

}

**The following data frames directly use this data frame:**

[CCDetourRecord](#)  
[PIServiceBulletin](#)  
[PIServiceDelayed](#)  
[PIStopPatternPointEntry](#)  
[PIStopPatternRouteEntry](#)  
[SCHPatternSegment](#)

**The following messages directly use this data frame:**

[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## B.248 Data Frame SCHTimeTableEntry {SCH 1016}

**Use:**

Provide a timepoint name and a series of scheduled vehicle stop times at the timepoint, for a specified direction of travel.

**Remarks:**

Direction of travel is specified externally in the PiXMLTimetable data frame.

**ASN1:**

```
SCHTimeTableEntry ::= SEQUENCE {
    timepointID          SCHTimepointIden,
    timepointName         SCH-TimepointName,
    timepointNameLangs   CPTAdditionalLanguageContents OPTIONAL,
    times                SEQUENCE (SIZE(1..1000)) OF SCH-Time
}
```

**No data frames were identified that directly use this data frame**

**No messages were identified that directly use this data frame**

## B.249 Data Frame SCHTimeTableTrip {SCH 1023}

### Use:

Provide a limited trip definition for use in a timetable.

### Remarks:

### ASN1:

```
SCHTimeTableTrip ::= SEQUENCE {
    trip                  SCHTripIden,
    trip-note             SCHNoteIden OPTIONAL,
    mode                 CPT-Mode OPTIONAL,
    amenities            SEQUENCE (SIZE(1..32)) OF ATIS.AmenitiesList OPTIONAL,
    trip-timepoints      SEQUENCE (SIZE(1..100)) OF SCHTimeTableTripTP
}
```

The following data frames directly use this data frame:

[PIXMLTimetable](#)

No messages were identified that directly use this data frame

## B.250 Data Frame SCHTimeTableTripTP {SCH 1024}

### Use:

Define a visit to a timepoint within a trip in a timetable.

### Remarks:

### ASN1:

```
SCHTimeTableTripTP ::= SEQUENCE {
    timepoint-iden        SCHTimepointIden,
    trip-timepoint-time   SCH-Time,
    note                 SCHNoteIden OPTIONAL
}
```

The following data frames directly use this data frame:

[SCHTimeTableTrip](#)

No messages were identified that directly use this data frame

## B.251 Data Frame SCHTimepointIden {SCH 1032}

### Use:

Uniquely identify a schedule timepoint whether in a single, or multi agency environment.

### Remarks:

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

### ASN1:

```
SCHTimepointIden ::= SEQUENCE {
    id                  SCH-TimepointID,
    ag                  CPT-AgencyID OPTIONAL,
    name                SCH-TimepointName OPTIONAL,
    nameLangs           CPTAdditionalLanguageContents OPTIONAL,
    desig               SCH-TimepointDesignator OPTIONAL,
    desigLangs          CPTAdditionalLanguageContents OPTIONAL,
    agdesig             CPT-AgencyDesignator OPTIONAL,
    agdesigLangs        CPTAdditionalLanguageContents OPTIONAL
}
```

The following data frames directly use this data frame:

[CCDestinationSignRule](#)  
[CCDetourRecord](#)  
[CCHistoricalAdherenceRecord](#)  
[CCPTVLocation](#)  
[CCPollResponseContents](#)  
[CCTimepointHistory](#)  
[CPTStopPoint](#)  
[PITimetableTimepoint](#)  
[SCHBlockScheduleEntry](#)  
[SCHConsistChangeEvent](#)  
[SCHOperatorAssignment](#)  
[SCHRanScheduleEntry](#)  
[SCHRunningTimeEntry](#)  
[SCHServiceAtStop](#)  
[SCHTimeStopPoint](#)  
[SCHTimeTableEntry](#)  
[SCHTimeTableTripTP](#)  
[SCHTimepointInfo](#)  
[SCHTimepointInterval](#)  
[SCHValidationReport](#)  
[SCHVehicleAssignment](#)  
[SPTimepointGeoLoc](#)

The following messages directly use this data frame:

[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[CcLocationReport](#)  
[CcPTVAdherence](#)  
[ObLocation](#)  
[SchActualRunningTimes](#)

[SchActualRunningTimesSub](#)  
[SchPushTimepoints](#)  
[SchTimepointList](#)  
[SchTimepointsFile](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)

## B.252 Data Frame SCHTimepointInfo {SCH 1048}

### Use:

Provide a structure to convey information about a timepoint.

### Remarks:

The timepoint-designator, timepoint-name-short, and timepoint-name provide optional fields to include alternative identifiers for the timepoint. The timepoint-id must be present whether or not a timepoint-designator, timepoint-name-short, or timepoint-name is present.

The timepoint-notes field provides an optional capability to provide a reference to a text note about the timepoint.

### ASN1:

```
SCHTimepointInfo ::= SEQUENCE {
    timepoint          SCHTimepointIden,
    metadata           CPTRowMetaData OPTIONAL,
    timepoint-location LRMS.GeoLocation,
    timepoint-notes   SEQUENCE (SIZE(1..500)) OF SCHNoteIden OPTIONAL,
    associated-stops  SEQUENCE (SIZE(1..20)) OF CPTStoppointIden OPTIONAL,
    mode               CPT-Mode OPTIONAL,
    pointlatitude     LRMS.Latitude OPTIONAL,
    pointlongitude    LRMS.Longitude OPTIONAL,
    ...   -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchCommandScheduleChange](#)  
[SchPushTimepoints](#)  
[SchTimepointList](#)  
[SchTimepointsFile](#)

## B.253 Data Frame SCHTimepointInterval {SCH 1050}

### Use:

A one-way path of travel between two consecutive time points on a block.

### Remarks:

Compliant implementations must be able to receive any field that is present, however, recommend the following when using ATIS.Route as the location field in this TCIP data frame

- i. omit head, startTime, endTime, other events, and estimatedCost fields
- ii. set itinerary = false
- iii. origen & destination fields: use only the geoLocationField inside the PointLocation
- iv. maps and tripTotalDistance may be used if useful for the particular project.
- v. within the subroutes field, recommend using only the origen, destination & segments fields
- vi. within the subroutes.origen & subroutes.destination fields recommend using only the geoLocationField inside the PointLocation
- vii. within the subroutes.segments field recommend using only the endpoint and midpoint.shapePoint fields. For endpoint use only the geoLocationField inside the PointLocation

### ASN1:

```
SCHTimepointInterval ::= SEQUENCE {
    tpi-id                  SCH-TimepointIntervalID OPTIONAL,
    tpi-designator           SCH-TimepointIntervalDes OPTIONAL,
    tpi-designatorLangs      CPTAdditionalLanguageContents OPTIONAL,
    startPointID             SCHTimepointIden, -- terminus of interval
    endPointID               SCHTimepointIden, -- terminus of interval
    location                 ATIS.Route OPTIONAL,
    mode                     CPT-Mode OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SchRunningTimeList](#)  
[SchRunningTimeListSub](#)

## B.254 Data Frame SCHTimetableVersion {SCH 1040}

### Use:

Define a timetable version identifier consistent with the usage in legacy projects.

### Remarks:

This frame is maintained in TCIP to support legacy applications. The structure is not consistent with naming, identification, and other conventions used in TCIP 2.6 and later TCIP versions. This structure is not recommended for use in developing new systems.

### ASN1:

```
SCHTimetableVersion ::= SEQUENCE {
    timetable-version-id      SCH-TimetableVersionID,
    timetable-version-name    SCH-TimetableVersionName,
    activation-date           CPT-Date OPTIONAL,
    deactivation-date         CPT-Date OPTIONAL,
    agency-id                 CPT-AgencyID OPTIONAL
}
```

No data frames were identified that directly use this data frame

No messages were identified that directly use this data frame

## B.255 Data Frame SCHTransferInfo {SCH 1011}

### Use:

Describe a case where service is scheduled to facilitate a transfer from one transit service (route) to another. This structure defines not only the pair of stoppoints where the transfer occurs, but a specific instance of service scheduled to allow the transfer.

### Remarks:

The drop-off field describes the scheduled vehicle stop where the passenger would alight for the transfer, and the pick-up field describes the scheduled vehicle stop where the passenger would board the vehicle to leave the transfer.

Note that the structure allows the drop off and pick up to occur at different stoppoints. This is necessary to allow for transfers between routes at intersecting streets. Local agency policy determines whether two stoppoints are sufficiently close to be considered a valid transfer. The minimum-wait field is used to support connection protection. The isProtected field indicates that the departing PTV should be held according to local policies if the arriving PTV is late.

### ASN1:

```
SCHTransferInfo ::= SEQUENCE {
    transferID                SCH-TransferID,
    metadata                  CPTRowMetaData OPTIONAL,
```

```

drop-off           SCHServiceAtStop,
pick-up           SCHServiceAtStop,
transfer-notes    SEQUENCE (SIZE(1..100)) OF SCHNoteIden OPTIONAL,
expected-wait     CPT-Duration OPTIONAL,
minimum-wait      CPT-Duration OPTIONAL,
isProtected       CPT-Boolean,
clusterID         CPTTransferClusterIden OPTIONAL,
activation-date   CPT-Date OPTIONAL,
deactivation-time CPT-Time OPTIONAL,
...   -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)  
[SchRouteScheduleFile](#)

## B.256 Data Frame SCHTripDetailInfo {SCH 1010}

**Use:**

Provide detailed information about a scheduled trip. This data frame includes the SCH-TripInfo data frame, and adds the route, vehicle, and operator identification.

**Remarks:**

Either the operator-id or the operator-des field is required to identify the operator. Both may optionally be included. The operator's name may optionally be included as well. The other-employees field optionally lists other employees (besides the operator) that are assigned to accompany the trip on the PTV.

**ASN1:**

```

SCHTripDetailInfo ::= SEQUENCE {
  route           SCHRouteIden,
  route-direction-name SCH-RouteDirectionName OPTIONAL,
  route-direction-nameLangs CPTAdditionalLanguageContents OPTIONAL,
  route-version    SCH-TimetableVersionID OPTIONAL,
  effective       CPT-DateTime,
  tripInfo        SCHTripInfo,
  operator         CPTOperatorIden OPTIONAL,
  other-employees  SEQUENCE (SIZE(1..10)) OF CPTEmployeeIden OPTIONAL,
  vehicle          CPTVehicleIden OPTIONAL,
  activation-date  CPT-Date OPTIONAL,
  deactivation-date CPT-Date OPTIONAL,
  relief-operator   CPTOperatorIden OPTIONAL,
  relief-vehicle    CPTVehicleIden OPTIONAL,
...   -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchTripDetailList](#)

## B.257 Data Frame SCHTripIden {SCH 1030}

**Use:**

Uniquely identify a scheduled trip whether in a single, or multi agency environment.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
SCHTripIden ::= SEQUENCE {
    id                      SCH-TripID,
    ag                      CPT-AgencyID OPTIONAL,
    name                    CPT-GenericName OPTIONAL,
    nameLangs               CPTAdditionalLanguageContents OPTIONAL,
    desig                   SCH-TripDesignator OPTIONAL,
    desigLangs              CPTAdditionalLanguageContents OPTIONAL,
    agdesig                CPT-AgencyDesignator OPTIONAL,
    agdesigLangs           CPTAdditionalLanguageContents OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CCDestinationSignRule](#)  
[CCHistoricalAdherenceRecord](#)  
[CCOperatorAssignmentChange](#)  
[CCPTVLocation](#)  
[CCPTVTripData](#)  
[CCPullInReport](#)  
[CCPullOutReport](#)  
[CCTimepointHistory](#)  
[CCTripCancellationRecord](#)  
[CCVehicleAssignmentChange](#)  
[FCPassengerCountRecord](#)  
[OBStoppointRecord](#)  
[PIGateBayAssignment](#)  
[PIPTVDelayed](#)  
[PISchedAdherenceCountdown](#)  
[PISchedAdherenceOffSched](#)  
[PISchedAdherenceRange](#)  
[PIScheduleRouteEntry](#)  
[SCHActualRunTime](#)  
[SCHAffectedStop](#)  
[SCHEventChange](#)  
[SCHOperatorAssignment](#)  
[SCHPTVRouteScheduleEntry](#)

[SCHPullInOutInfo](#)  
[SCHServiceAtStop](#)  
[SCHTimeTableTrip](#)  
[SCHTripInfo](#)  
[SCHValidationErrorResponse](#)  
[SCHVehicleAssignment](#)  
[TSPScheduleEntry](#)  
[TSPStatus](#)

**The following messages directly use this data frame:**

[CcAdherencePerformance](#)  
[CcAdherencePerformanceSub](#)  
[CcLocationReport](#)  
[ObLocation](#)  
[PiGTFSData](#)  
[PiGTFSDataSub](#)  
[PiServiceBulletinsList](#)  
[PiServiceBulletinsListSub](#)  
[SchActualRunningTimes](#)  
[SchActualRunningTimesSub](#)  
[SchCommandScheduleChange](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)  
[SchTripDetailList](#)  
[SchTripDetailListSub](#)  
[SpRouteGeoTrace](#)  
[SpRouteGeoTraceSub](#)

## B.258 Data Frame SCHTripInfo {SCH 1001}

### Use:

This data frame describes a trip to be completed.

### Remarks:

The day-types field indicates that this trip is scheduled to be executed on any day which has a listed type that matches any of the listed types in this frame. The pattern field should be present for any SCHTripInfo frame conveyed with a route schedule that does not run the default sequence of patterns for the route and direction intended for the trip, or for any SCHTripInfo frame conveyed in a run schedule or a block schedule.

The events field allows the server to include required event information in the trip info. Note that events are also defined within pattern segments, so any even defined in the pattern segment need not be redefined in trips following that pattern segment. The optional timetable-version field within SCHEvent data frame shall not be used inside of the SCHTripInfo data frame.

When used in a route schedule, the route and direction fields are not required, however these fields shall be included when the data frame is used in a block schedule, run schedule, or trip detail message.

The notes field provides a mechanism to refer to text notes that are relevant to a particular trip. The text notes referred to by this field are conveyed in the parent message containing the SCHTripInfo data frame(s).

The start of trip time and the end of trip time are indicated by the first and last entries in the trip-timepoint-times. If the agency defines timepoints at the begin and end locations there shall be exactly the same number of entries in trip-timepoint-times as there are timepoints in the pattern, otherwise there are two more entries in trip-timepoint-times than there are timepoints in the pattern. A trip is scheduled to run on a specific calendar date if a) Its service type matches one of the service types listed for the date, and it has no exceptions listed in its noRunExceptions that match any exceptions active for that calendar date, OR b) it has an entry in its runExceptions list that matches an exception that is active for that calendar date. The affStops field may be used to specify the stops visited by the trips and the scheduled departure time from each of those stops.

Consist changes for a train can be made that are unique to the trip can be specified by including the trigger (SCHActivationIden) for the change in an event specified in the events field. The train identifier for a trip may be specified using the trainID field.

### ASN1:

```
SCHTripInfo ::= SEQUENCE {
    trip                                SCHTripIden,
    metadata                             CPTRowMetaData OPTIONAL,
    route                                SCHRoutIden,
    direction                            SCH-RouteDirectionName OPTIONAL,
    directionLangs                      CPTAdditionalLanguageContents OPTIONAL,
    service-type                         SCH-ServiceType,
    day-types                            SEQUENCE (SIZE(1..20)) OF SCH-DayType,
    pattern                               SCHPatternIden OPTIONAL,
    run                                    SCHRUnIden OPTIONAL,
    block                                  SCHBlockIden OPTIONAL,
    trip-type                            SCH-TripType,
    trip-type-name                      SCH-TripTypeDescription OPTIONAL,
    trip-type-nameLangs                 CPTAdditionalLanguageContents OPTIONAL,
    trip-timepoint-times                SEQUENCE (SIZE(1..500)) OF SCH-Time,
    trip-stoppoint-times                SEQUENCE (SIZE(1..1000)) OF SCH-Time OPTIONAL,
    events                                SCHEvent OPTIONAL,
    notes                                 SCHNoteIden OPTIONAL,
    op-time-type                         SCH-OperatingTimeType OPTIONAL,
    runExceptions                        SEQUENCE (SIZE(1..24)) OF SCH-ExceptionID OPTIONAL,
    noRunExceptions                      SEQUENCE (SIZE(1..24)) OF SCH-ExceptionID OPTIONAL,
    affStops                             SEQUENCE (SIZE(1..5000)) OF SCHAffectedStop OPTIONAL,
    trainID                              CPTTrainIden OPTIONAL
}
```

**The following data frames directly use this data frame:**

[SCHBlockScheduleEntry](#)  
[SCHPTVRouteScheduleEntry](#)  
[SCHRUnScheduleEntry](#)  
[SCHTripDetailInfo](#)

**The following messages directly use this data frame:**

[SchCommandScheduleChange](#)  
[SchPushRouteSchedule](#)  
[SchRouteSchedule](#)

## B.259 Data Frame SCHUnassignedOperator {SCH 1013}

### Use:

Group together the information required to describe an unassigned operator.

### Remarks:

If the operator is assigned for a portion of the day, then begin-time is used to specify the beginning of the unassigned period, and end-time is used to specify the end of the unassigned period. If begin-time is not present, the operator is unassigned at the beginning of the day, if the end time is not present the operator is unassigned through the end of the day. If both fields are absent, the operator is unassigned for the entire day.

The agency and operator-base fields are optional and available for use if needed by an individual agency.

### ASN1:

```
SCHUnassignedOperator ::= SEQUENCE {
    operator                  CPTOperatorIden OPTIONAL,
    unassigned-date           CPT-Date,
    begin-time                CPT-Time OPTIONAL,
    end-time                  CPT-DateTime OPTIONAL,
    agency                    CPT-AgencyID OPTIONAL,
    operator-base              CPTOperatorBaseIden OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchUnassignedOperatorList](#)

**B.260 Data Frame SCHUnassignedVehicle {SCH 1012}****Use:**

Group together the information required to describe an unassigned vehicle.

**Remarks:**

If the vehicle is assigned for a portion of the day, then begin-time is used to specify the beginning of the unassigned period, and end-time is used to specify the end of the unassigned period. If begin-time is not present, the vehicle is unassigned at the beginning of the day, if the end time is not present the vehicle is unassigned through the end of the day. If both fields are absent, the vehicle is unassigned for the entire day.

The agency and vehicle-base fields are optional and available for use if needed by an individual agency.

**ASN1:**

```
SCHUnassignedVehicle ::= SEQUENCE {
    vehicle                  CPTVehicleIden,
    unassigned-date          CPT-Date,
    begin-time               CPT-Time OPTIONAL,
    end-time                 CPT-DateTime OPTIONAL,
    vehicle-base             CPTTransitFacilityIden OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchUnassignedVehicleList](#)

**B.261 Data Frame SCHValidationError {SCH 1017}****Use:**

Provide information about a schedule validation failure. If a schedule validation uncovers multiple errors, a separate instance of this frame is required for each error.

**Remarks:**

The 'affected' fields are not intended to list all indirectly impacted artifacts, but to identify the artifacts most closely associated with the generated error to facilitate troubleshooting.

**ASN1:**

```
SCHValidationError ::= SEQUENCE {
    error-type              SCH-ValidationErrorResponseType,
    affected-patterns       SEQUENCE (SIZE(1..50)) OF SCHPatternIden OPTIONAL,
    affected-segments        SEQUENCE (SIZE(1..50)) OF SCHPatternSegmentIden OPTIONAL,
    affected-trips           SEQUENCE (SIZE(1..50)) OF SCHTripIden OPTIONAL,
    affected-runs            SEQUENCE (SIZE(1..50)) OF SCHRanIden OPTIONAL,
    affected-blocks          SEQUENCE (SIZE(1..50)) OF SCHBlockIden OPTIONAL,
```

```

affected-routes      SEQUENCE (SIZE(1..50)) OF SCHRouteIden OPTIONAL,
affected-directions  SEQUENCE (SIZE(1..50)) OF SCH-RouteDirectionName OPTIONAL,
affected-directionsLangs SEQUENCE (SIZE(1..50)) OF CPTAdditionalLanguageContents OPTIONAL,
affected-stoppoints  SEQUENCE (SIZE(1..50)) OF CPTStoppointIden OPTIONAL,
affected-timepoints  SEQUENCE (SIZE(1..50)) OF SCHTimepointIden OPTIONAL,
affected-transfers   SEQUENCE (SIZE(1..50)) OF SCH-TransferID OPTIONAL,
explanation          CPT-Footnote OPTIONAL,
explanationLangs    CPTAdditionalLanguageContents OPTIONAL,
...  -- # LOCAL_CONTENT
}

```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchReportValidationErrors](#)

## B.262 Data Frame SCHVehicleAssignment {SCH 1006}

**Use:**

Group together the information required to describe a vehicle's work assignment. This can describe a vehicle assignment that may or may not have been bound to a specific vehicle ID.

**Remarks:**

The fields :pulloutTime, pullInTime, pulloutLocation, pullInLocation, agency, and vehicle-base are optional and available to meet individual agencies' needs. The assignment is executed on any day matching any of the listed day types in the day-types field.

Additional information about the trips referenced in the trips field can be obtained using the Publish Route Schedule, Publish Block Schedule, Publish Run Schedule, and/or Publish Trip Detail dialogs. The begin-timepoint field is used to a vehicle is assigned to begin a trip in the middle at the designated timepoint. Similarly end-timepoint is used only if the vehicle assignment ends in the middle of a trip at the designated timepoint.

**ASN1:**

```

SCHVehicleAssignment ::= SEQUENCE {
  block                  SCHBlockIden,
  metadata               CPTRowMetaData OPTIONAL,
  vehicle                CPTVehicleIden OPTIONAL,
  operator               CPTOperatorIden OPTIONAL,
  pullOutTime            SCH-Time OPTIONAL,
  pullInTime              SCH-Time OPTIONAL,
  pulloutLocation         LRMS.GeoLocation OPTIONAL,
  pullInLocation          LRMS.GeoLocation OPTIONAL,
  vehicle-base            CPTTransitFacilityIden OPTIONAL,
  trips                  SEQUENCE (SIZE(1..100)) OF SCHTripIden OPTIONAL,
  begin-timepoint         SCHTimepointIden OPTIONAL,
  end-timepoint           SCHTimepointIden OPTIONAL,
  day-types               SEQUENCE (SIZE(1..20)) OF SCH-DayType OPTIONAL,
  ptv-type                CPT-PTVehicleType OPTIONAL,
  organization            CPTOrganizationalUnitIden OPTIONAL,
}

```

```
note          SCHNoteIden OPTIONAL,  
trainID       CPTTrainIden OPTIONAL,  
consistCars   SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,  
...  -- # LOCAL_CONTENT  
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SchPushVehicleAssignments](#)  
[SchVehicleAssignmentFile](#)  
[SchVehicleAssignmentList](#)

## B.263 Data Frame SCHWaitingTime {SCH 1022}

**Use:**

Define a waiting period for a PTV at a stoppoint, or other designated location.

**Remarks:**

**ASN1:**

```
SCHWaitingTime ::= SEQUENCE {  
    stoppoint      CPTStoppointIden,  
    other-location  LRMS.GeoLocation,  
    wait-time       CPT-Duration  
}
```

**The following data frames directly use this data frame:**

[SCHRunningTimeEntry](#)

**No messages were identified that directly use this data frame**

## B.264 Data Frame SPBoundaryBox {SP 1009}

### Use:

Defines the limits of a rectangular area (e.g. of a map) by specifying the Northeast and Southwest corners of the rectangle.

### Remarks:

If the location of the southwest field is north or east of the northeast field, the frame is invalid.

### ASN1:

```
SPBoundaryBox ::= SEQUENCE {
    northeast          SPPoint,
    southwest          SPPoint
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SpMapImage](#)  
[SpMapImageSub](#)

## B.265 Data Frame SPBoundaryContent {SP 1026}

### Use:

Define the limits of a geographical area using a list of locations and/or feature identifiers that the boundary must include.

### Remarks:

### ASN1:

```
SPBoundaryContent ::= SEQUENCE {
    locations           SEQUENCE (SIZE(1..100)) OF SPPoint OPTIONAL,
    features            SEQUENCE (SIZE(1..100)) OF CPTGenericIden OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SpMapImage](#)  
[SpMapImageSub](#)

## B.266 Data Frame SPBoundaryRange {SP 1010}

### Use:

Define the limits of a geographical area using a circle defined by a point and a radial distance. If used to specify a map's boundaries the map shall fully contain the circle described by this frame.

### Remarks:

### ASN1:

```
SPBoundaryRange ::= SEQUENCE {
    center          SPPoint,
    radius          LRMS.Distance
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SpMapImage](#)  
[SpMapImageSub](#)

## B.267 Data Frame SPDataQuality {SP 1008}

### Use:

Provide an indication of the quality of location data.

### Remarks:

The cep fields define a circular error probable distance that the location is within. For example cep\_90\_percent indicates that the location is accurate within the specified distance with a confidence of 90%.

### ASN1:

```
SPDataQuality ::= SEQUENCE {
    qualitative-indicator   SP-QualityLevel OPTIONAL,
    cep-90-percent          LRMS.Distance OPTIONAL,
    cep-95-percent          LRMS.Distance OPTIONAL,
    cep-99-percent          LRMS.Distance OPTIONAL,
    cep-99pt9percent        LRMS.Distance OPTIONAL
}
```

The following data frames directly use this data frame:

[CCPTVLocation](#)  
[SPFacilityGeoLoc](#)  
[SPIncidentLocation](#)  
[SPSegmentGeolocation](#)

[SPStopGeoLoc](#)  
[SPTimepointGeoLoc](#)  
[TSPStatus](#)

**The following messages directly use this data frame:**

[CcLocationReport](#)  
[CcManualAlarm](#)  
[CcPassengerAlarm](#)  
[ObLocation](#)

## B.268 Data Frame SPFacilityGeoLoc {SP 1005}

**Use:**

Provide field-collected geolocation information for a transit facility.

**Remarks:**

**ASN1:**

```
SPFacilityGeoLoc ::= SEQUENCE {
    facility                  CPTTransitFacilityIden,
    pointLocation              LRMS.GeoLocation OPTIONAL,
    polygonLocation             SPPolygon OPTIONAL,
    frontageBegin               LRMS.GeoLocation OPTIONAL,
    frontageEnd                 LRMS.GeoLocation OPTIONAL,
    data-quality                SPDataQuality
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SpGeolocationData](#)

## B.269 Data Frame SPFeature {SP 1031}

### Use:

Define an instance of a feature for use in a GIS layer.

### Remarks:

The feature-id field is a unique number within the GIS (all layers). The feature type field identifies the layer to which the feature belongs. The landmark-type field if present identifies a sublayer within the landmark layer to which the feature belongs. The feature name field provides a label to identify the feature on a map. The association field allows the feature to be associated with any TCIP object type that has an associated Iden-type identifier. The default color and highlight color field provide information on the colors to be used to represent the feature. The label field, if present provides a text label to accompany the feature when displayed on a map. Agency policy determines whether the label or name field is used on a map, or if the label (when present) overrides the name on a map, or if the label or name is selected based on the map type being rendered.

### ASN1:

```
SPFeature ::= SEQUENCE {
    featureID           SPFeatureIden,
    feature-type         CPT-FeatureType,
    landmark-type        PI-LandmarkType OPTIONAL,
    metadata             CPTRowMetaDataTable,
    association          CPTGenericIden OPTIONAL,
    default-color        CPT-Color,
    highlight-color       CPT-Color OPTIONAL,
    geometry              SPFeatureGeometry,
    label                 SP-FeatureLabel OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcGISFile](#)  
[SpGIS](#)  
[SpGISPush](#)

**B.270 Data Frame SPFeatureGeometry {SP 1013}****Use:**

Defines the geometry to be used in drawing a feature on the map.

**Remarks:**

This data frame provides the information necessary to draw the feature on a map. The feature may be represented as a point, as a line (which may contain many shape points to approximately denote a curve), or as a polygon. A polygon shall be drawn filled in if the fill field is present and is set to true. The fill field shall not be used with the point or line types. The thickness field may be used to indicate a preference for the thickness of the line to be used to represent the feature in pixels. The line thickness may be overwritten by local configuration settings, or varied based on the scale at which the feature is represented based on local configuration settings.

**ASN1:**

```
SPFeatureGeometry ::= SEQUENCE {
    point                  SPPoint OPTIONAL,
    linePoints             SEQUENCE (SIZE(1..10000)) OF SPPoint,
    polygon                SPPolygon,
    fill                   CPT-Boolean OPTIONAL,
    thickness              CPT-GenericCounter OPTIONAL
}
```

**The following data frames directly use this data frame:**

[SPFeature](#)

**No messages were identified that directly use this data frame**

**B.271 Data Frame SPFeatureIden {SP 1032}****Use:**

Uniquely identify a geographical feature within an agency or a group of agencies.

**Remarks:**

All comparisions of id fields within TCIP Iden frames shall be case-insensitive, and shall ignore leading and trailing white space.

**ASN1:**

```
SPFeatureIden ::= SEQUENCE {
    id                    SP-FeatureID,
    ag                   CPT-AgencyID OPTIONAL,
    name                 SP-FeatureName OPTIONAL,
```

```
nameLangs           CPTAdditionalLanguageContents OPTIONAL,  
desig              SP-FeatureDesignator OPTIONAL,  
desigLangs         CPTAdditionalLanguageContents OPTIONAL,  
agdesig            CPT-AgencyDesignator OPTIONAL,  
agdesigLangs       CPTAdditionalLanguageContents OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[SPFeature](#)  
[SPInteriorFeature](#)  
[SPStreetSeg](#)

**No messages were identified that directly use this data frame**

## B.272 Data Frame SPFeatureSymbol {SP 1022}

**Use:**

Defines a symbol to be used for a feature type when represented on a map within a specified scale range.

**Remarks:**

If the scale range field is absent, the representation is valid at all scales, otherwise the symbol is used to represent the feature only on maps rendered in the indicated scale range. The frame allows a symbol to be used to denote the feature type. The symbol may be defined as a series of overlaid dimensionless geometrical constructs (lines, polygons, arcs, and circles), or as a graphical image file (e.g. GIF). The symbol may include a label. The frame provides for local extensions to allow symbol-def to be expanded to include locally defined symbol types. The default color and highlight color fields (if present) indicate the default color to be used to represent the symbol, and an alternate color to be used to highlight specific instances of the feature type.

**ASN1:**

```
SPFeatureSymbol ::= SEQUENCE {  
    scale-range          SPScaleRange OPTIONAL,  
    geometric            SPGeometricSymbol OPTIONAL,  
    default-image        PI-BinaryImageData OPTIONAL,  
    highlight-image      PI-BinaryImageData OPTIONAL,  
    format               PI-GraphicFormat OPTIONAL,  
    label                SP-SymbolLabel OPTIONAL  
}
```

**The following data frames directly use this data frame:**

[SPGISLayer](#)

**No messages were identified that directly use this data frame**

## B.273 Data Frame SPGISLayer {SP 1011}

### Use:

Provide the information defining the content of a minimal GIS layer.

### Remarks:

The layer must have exactly one feature type, & the layer's name is inherited from the feature type field. The scale range field, if present, defines the range of map scales on which this feature type may be rendered by default. The symbols field (if present) defines the symbols to be used at various scales to represent features of the type contained in this layer. The features field contains the instances of the feature contained within the layer. The landmark type field shall only be used when the feature type is landmark. The use of this field effectively creates a sub layer for each landmark type within feature type landmark.

### ASN1:

```
SPGISLayer ::= SEQUENCE {
    feature-type           CPT-FeatureType,
    landmark-type          PI-LandmarkType OPTIONAL,
    metadata                CPTRowMeta OPTIONAL,
    scale-range             SPScaleRange OPTIONAL,
    symbols                 SEQUENCE (SIZE(1..10)) OF SPFeatureSymbol OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcGISFile](#)  
[SpGIS](#)  
[SpGISPush](#)

## B.274 Data Frame SPGeometricSymbol {SP 1019}

### Use:

Define a symbol as an overlaid series of dimensionless (scalable) geometric constructs.

### Remarks:

### ASN1:

```
SPGeometricSymbol ::= SEQUENCE {
    parts                  SEQUENCE (SIZE(1..20)) OF SPSymbolPart,
    default-color          CPT-Color OPTIONAL,
    highlight-color        CPT-Color OPTIONAL
}
```

The following data frames directly use this data frame:

[SPFeatureSymbol](#)

No messages were identified that directly use this data frame

## B.275 Data Frame SPIncidentLocation {SP 1004}

### Use:

Provide field-collected geolocation information for an incident.

### Remarks:

### ASN1:

```
SPIncidentLocation ::= SEQUENCE {
    incident              IMIncidentIden,
    pointLocation         LRMS.GeoLocation OPTIONAL,
    polygonLocation       SPPolygon OPTIONAL,
    lineLocationBegin    LRMS.GeoLocation OPTIONAL,
    lineLocationEnd      LRMS.GeoLocation OPTIONAL,
    data-quality          SPDataQuality OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SpGeolocationData](#)

## B.276 Data Frame SPIntDirection {SP 1025}

### Use:

Provide one step in a set of indoor directions. References to LRMS allow directions to include portions that are outdoors as well.

### Remarks:

The images and videos fields may optionally be used to convey pictures of locations along the route, or video of the path along the route.

### ASN1:

```
SPIntDirection ::= SEQUENCE {
    from                  SPIInteriorLocation OPTIONAL,
    to                    SPIInteriorLocation OPTIONAL,
    instruction          ATIS.ManeuverInstruction OPTIONAL,
    text                 CPT-Footnote OPTIONAL,
    textLangs            CPTAdditionalLanguageContents OPTIONAL,
    images               SEQUENCE (SIZE(1..10)) OF PI-BinaryImageData OPTIONAL,
    image-format         PI-GraphicFormat OPTIONAL,
    video-format         PI-GraphicFormat OPTIONAL,
    frames              SEQUENCE (SIZE(1..5)) OF PI-BinaryVideoData
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[PiDirections](#)

## B.277 Data Frame SPIInteriorFeature {SP 1033}

### Use:

Specify an indoor feature.

### Remarks:

### ASN1:

```
SPIInteriorFeature ::= SEQUENCE {
    featureID           SPFeatureIden,
    feature-type        SP-InteriorFeatureType,
    feature-location    SPIInteriorLocation,
    ... -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

**No messages were identified that directly use this data frame**

## B.278 Data Frame SPIInteriorLocation {SP 1024}

### Use:

Specify an indoor location.

### Remarks:

The location can be specified by any combination of information provided by this frame. For example a building number and room number, or a geolocation for a corner of the building and east/north offsets from that corner, or an address, or grid location etc.

### ASN1:

```
SPIInteriorLocation ::= SEQUENCE {
    name                      SP-FeatureName OPTIONAL,
    nameLangs                 CPTAdditionalLanguageContents OPTIONAL,
    building                  SP-BuildingIdentifier OPTIONAL,
    room                      SP-RoomIdentifier OPTIONAL,
    facility                  CPTTransitFacilityIden OPTIONAL,
    point-geolocation         LRMS.GeoLocation OPTIONAL,
    polygon-location          SPPolygon OPTIONAL,
    buildingcornerlocation    LRMS.GeoLocation OPTIONAL,
    offsetEast                LRMS.Distance OPTIONAL,
    offsetNorth               LRMS.Distance OPTIONAL,
    grid-reference             SP-IndoorGridIdentifier OPTIONAL,
    address                   LRMS.AddressPoint OPTIONAL,
    static-sign-text           PI-StaticSignMessage OPTIONAL,
    static-sign-textLangs     CPTAdditionalLanguageContents OPTIONAL,
    level                     LRMS.VerticalLevel OPTIONAL,
    location-images           SEQUENCE (SIZE(1..10)) OF PI-BinaryImageData OPTIONAL,
    image-format              PI-GraphicsFormat OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**The following data frames directly use this data frame:**

[IMIncident](#)  
[PIAmenity](#)  
[SPIntDirection](#)  
[SPIInteriorFeature](#)

**The following messages directly use this data frame:**

[PiDirections](#)  
[PiDirectionsSub](#)

## B.279 Data Frame SPLink {SP 1028}

### Use:

A definition of a link between 2 geographical points .Defines a link location. without using the recursive LRMS LinkLocation data frame.

### Remarks:

The location can be the entire link or a location along the link. the name & info fields can be used to provide descriptive information about the link. If the link is not a straight line shape points may be used to denote intermediate points in an ordered list between begin and end.

### ASN1:

```
SPLink ::= SEQUENCE {
    name                               LRMS.Text-name255 OPTIONAL,
    nameLangs                          CPTAdditionalLanguageContents OPTIONAL,
    info                                LRMS.StreetInfo OPTIONAL,
    begin-lat                           LRMS.Latitude,
    begin-lon                           LRMS.Longitude,
    end-lat                            LRMS.Latitude,
    end-lon                            LRMS.Longitude,
    dist-along                         LRMS.NormalizedDistance OPTIONAL, -- only to specify a point
    along
        side                             LRMS.Side, -- only to specify which side of the link an item is
    located.
        points                          SEQUENCE (SIZE(1..50)) OF ATIS.ShapePoint OPTIONAL
}
```

The following data frames directly use this data frame:

[IMIncident](#)  
[SCHPatternSegment](#)  
[SPPoint](#)

No messages were identified that directly use this data frame

## B.280 Data Frame SPLocationConversionEntry {SP 1001}

### Use:

Provide a conversion of a geographical point to another type.

### Remarks:

### ASN1:

```
SPLocationConversionEntry ::= SEQUENCE {
    point                  SPPoint, -- provided value
    requested-type          SP-LocationConversionType,
    converted-point         SPPoint OPTIONAL,
    error-message           CPT-Footnote OPTIONAL,
    error-messageLangs      CPTAdditionalLanguageContents OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SpLocationConversion](#)

## B.281 Data Frame SPLocationConversionRequest {SP 1002}

### Use:

Request a conversion of a geographical point from one type to another.

### Remarks:

### ASN1:

```
SPLocationConversionRequest ::= SEQUENCE {
    point                  SPPoint,
    requested-type          SP-LocationConversionType
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SpLocationConversionSub](#)

## B.282 Data Frame SPNoDimArc {SP 1017}

### Use:

Provide a dimensionless arc to be used in creating a symbol.

### Remarks:

This data frame defines a dimensionless arc to be used in creating a scalable symbol. The arc is a portion of a scalable circle between the angles specified by the from and to fields.

### ASN1:

```
SPNoDimArc ::= SEQUENCE {
    center          SPNoDimPoint,
    radius          SP-NoDimDist,
    from            LRMS.Angle,
    to              LRMS.Angle
}
```

The following data frames directly use this data frame:

[SPSymbolPart](#)

No messages were identified that directly use this data frame

## B.283 Data Frame SPNoDimCircle {SP 1018}

### Use:

A dimensionless circle for use on a map.

### Remarks:

If the fill field is true, then the circle shall be filled in, otherwise the circle is drawn as a line defining the outline of the circle with no fill.

### ASN1:

```
SPNoDimCircle ::= SEQUENCE {
    center          SPNoDimPoint,
    radius          SP-NoDimDist,
    fill            CPT-Boolean
}
```

The following data frames directly use this data frame:

[SPSymbolPart](#)

No messages were identified that directly use this data frame

## B.284 Data Frame SPNoDimLine {SP 1021}

### Use:

Define a dimensionless line for use in a symbol.

### Remarks:

The line can be a series of line connected straight line segments.

### ASN1:

```
SPNoDimLine ::= SEQUENCE {
    points           SEQUENCE (SIZE(1..20)) OF SPNoDimPoint
}
```

**The following data frames directly use this data frame:**

[SPSymbolPart](#)

**No messages were identified that directly use this data frame**

## B.285 Data Frame SPNoDimPoint {SP 1015}

### Use:

Provide a dimensionless X,Y coordinate to be used in specifying scalable constructs.

### Remarks:

This data frame is used to specify vecots in a dimensionless space. This allows symbols to be defined which can be scaled to various sizes so as to remain visible when zoomed out, but scaled down to a reasonable size when zoomed in.

### ASN1:

```
SPNoDimPoint ::= SEQUENCE {
    x           SP-NoDimCoord,
    y           SP-NoDimCoord
}
```

**The following data frames directly use this data frame:**

[SPNoDimArc](#)  
[SPNoDimCircle](#)  
[SPNoDimLine](#)  
[SPNoDimPolygon](#)

**No messages were identified that directly use this data frame**

## B.286 Data Frame SPNoDimPolygon {SP 1016}

### Use:

A dimensionless polygon for use on a map.

### Remarks:

The points shall be in order going around the polygon. A straight line segment between the last specified point and the first specified point shall be drawn to close the polygon. If the fill field is true, then the polygon shall be filled in, otherwise the polygon is drawn as a line defining the outline of the polygon with no fill.

### ASN1:

```
SPNoDimPolygon ::= SEQUENCE {
    points           SEQUENCE (SIZE(1..20)) OF SPNoDimPoint,
    fill             CPT-Boolean
}
```

**The following data frames directly use this data frame:**

[SPSymbolPart](#)

**No messages were identified that directly use this data frame**

## B.287 Data Frame SPPoint {SP 1030}

### Use:

Define a point location without using the recursive LRMS PointLocation data frame.

### Remarks:

Note that references to this frame may be converted to LRMS references in future TCIP releases if the recursion in LRMS is resolved. This frame is modeled on the LRMS.PointLocation data frame, less the recursive elements. If the frame SPLink is used, it should be used with a specified dist-along so that it resolves to a point rather than a line.

### ASN1:

```
SPPoint ::= SEQUENCE {
    pointName          LRMS.Text-name255 OPTIONAL,
    pointNameLangs     CPTAdditionalLanguageContents OPTIONAL,
    pointNodeId        LRMS.IdType OPTIONAL,
    pointType          LRMS.PointType OPTIONAL,
    linearReference    SPLink OPTIONAL, -- in lieu of recursive LRMS.Linear Reference
    addressPoint       LRMS.AddressPoint OPTIONAL,
    geoLocationPoint   LRMS.GeoLocation OPTIONAL,
    adminArea          LRMS.AdminAreaGroup OPTIONAL
}
```

**The following data frames directly use this data frame:**

[IMIncident](#)  
[PILandmark](#)  
[PINearestStopRequest](#)  
[SPBoundaryBox](#)  
[SPBoundaryContent](#)  
[SPBoundaryRange](#)  
[SPFeatureGeometry](#)  
[SPLocationConversionEntry](#)  
[SPLocationConversionRequest](#)

**The following messages directly use this data frame:**

[ImIncidentList](#)  
[ImIncidentListSub](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiGeoZoneList](#)  
[PiGeoZoneListSub](#)  
[PiLandmarksList](#)  
[PiLandmarksListSub](#)  
[PiLocationMap](#)  
[PiLocationMapSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)

## B.288 Data Frame SPPolygon {SP 1029}

**Use:**

Define a polygon as a series of geographical points without using the recursive LRMS Polygon data frame.

**Remarks:**

Note that references to this frame may be converted to LRMS references in future TCIP releases if the recursion in LRMS is resolved. This frame is modeled on the LRMS.Polygon data frame.

**ASN1:**

```
SPPolygon ::= SEQUENCE {
    polygonName           LRMS.Text-name255 OPTIONAL,
    polygonNameLangs      CPTAdditionalLanguageContents OPTIONAL,
    vertices               SEQUENCE (SIZE(1..255)) OF ATIS.ShapePoint,
    polygonId              LRMS.String-index64 OPTIONAL
}
```

**The following data frames directly use this data frame:**

[CPTRadioZone](#)  
[FCFFareZoneDefinition](#)  
[IMIncident](#)  
[PIAgencyProfile](#)  
[PiGeoZone](#)  
[SPFacilityGeoLoc](#)  
[SPFeatureGeometry](#)  
[SPIncidentLocation](#)

[SPInteriorLocation](#)  
[SPStopGeoLoc](#)  
[TSPBoundaryEntry](#)

**The following messages directly use this data frame:**

[CcGISFile](#)  
[PiAgencyList](#)  
[PiAgencyListSub](#)  
[PiGeoZoneList](#)  
[PiGeoZoneListSub](#)  
[PiServiceList](#)  
[PiServiceListSub](#)  
[SpGIS](#)  
[SpGISPush](#)  
[SpGISSub](#)

## B.289 Data Frame SPScaleRange {SP 1027}

**Use:**

Define an applicable range of scales for a feature or a feature representation.

**Remarks:**

The zoom-in and zoom-out fields are scale factors. For example a value of 500,000 refers to a map scale of 1:500000. The zoom-in field indicates the most detailed scale included in the range. The zoom-out field indicates the least detailed scale included in the range. If the zoom-in value is absent, then the range has no zoom-in limit. Similarly, if the zoom-out field is absent, there is no zoom-out limit on the range.

**ASN1:**

```
SPScaleRange ::= SEQUENCE {
    zoom-in                  CPT-GenericCounter OPTIONAL,
    zoom-out                  CPT-GenericCounter OPTIONAL
}
```

**The following data frames directly use this data frame:**

[SPFeatureSymbol](#)  
[SPGISLayer](#)

**No messages were identified that directly use this data frame**

## B.290 Data Frame SPSegmentGeolocation {SP 1003}

### Use:

Provide field-collected geolocation information for a pattern segment.

### Remarks:

Waypoints is an ordered list.

### ASN1:

```
SPSegmentGeolocation ::= SEQUENCE {
    segment          SCHPatternSegmentIden,
    waypoints        SEQUENCE (SIZE(1..1000)) OF LRMS.GeoLocation,
    data-quality     SPDataQuality OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SpGeolocationData](#)

## B.291 Data Frame SPStopGeoLoc {SP 1007}

### Use:

Provide field-collected geolocation information for a stoppoint.

### Remarks:

### ASN1:

```
SPStopGeoLoc ::= SEQUENCE {
    stoppoint        CPTStoppointIden,
    pointLocation   LRMS.GeoLocation OPTIONAL,
    polygonLocation SPPolygon OPTIONAL,
    startLocation   LRMS.GeoLocation OPTIONAL,
    endLocation     LRMS.GeoLocation OPTIONAL,
    signLocation    LRMS.GeoLocation OPTIONAL,
    shelterLocation LRMS.GeoLocation OPTIONAL,
    data-quality     SPDataQuality OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[SpGeolocationData](#)

## B.292 Data Frame SPStreetSeg {SP 1014}

### Use:

Defines a street segment between 2 nodes as part of a street.

### Remarks:

The feature fields allows the segment to be associated with a street feature in the GIS. The node1, node2 fields specify the connectivity of the segment. The street field allows the segment to be associated with its parent street. The addr1 and addr2 fields, if present, specify the address number range along the street segment from node 1 to node 2 respectively.

### ASN1:

```
SPStreetSeg ::= SEQUENCE {
    segID                  LRMS.IdType,
    node1                  LRMS.IdType,
    node2                  LRMS.IdType,
    direction              SP-OneWay OPTIONAL, -- if absent 2-way
    feature                SPFeatureIden OPTIONAL,
    street                 LRMS.IdType,
    addr1                  CPT-GenericCounter OPTIONAL,
    addr2                  CPT-GenericCounter OPTIONAL,
    metadata               CPTRowMetaDataTable OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[CcGISFile](#)  
[SpGIS](#)  
[SpGISPush](#)

## B.293 Data Frame SPSymbolPart {SP 1020}

### Use:

Defines a geometric item used in drawing a symbol for a feature type for use in rendering a map.

### Remarks:

### ASN1:

```
SPSymbolPart ::= SEQUENCE {
    line                      SPNoDimLine OPTIONAL,
    polygon                   SPNoDimPolygon OPTIONAL,
    arc                       SPNoDimArc OPTIONAL,
    circle                     SPNoDimCircle OPTIONAL
}
```

The following data frames directly use this data frame:

[SPGeometricSymbol](#)

No messages were identified that directly use this data frame

## B.294 Data Frame SPTimepointGeoLoc {SP 1006}

### Use:

Provide field-collected geolocation information for a timepoint.

### Remarks:

### ASN1:

```
SPTimepointGeoLoc ::= SEQUENCE {
    timepoint                SCHTimepointIden,
    pointLocation             LRMS.GeoLocation OPTIONAL,
    data-quality               SPDataQuality OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[SpGeolocationData](#)

## B.295 Data Frame TSPAllowedIntersection {TSP 1010}

### Use:

Define an allowed intersection, approach, boundary combination for a specified TSP strategy.

### Remarks:

If the "allowed-approaches" field is missing then all approaches are allowed.

### ASN1:

```
TSPAllowedIntersection ::= SEQUENCE {
    intersection          CPTIntersectionIden,
    allowed-approaches    SEQUENCE (SIZE(1..10)) OF TSP-ApproachID OPTIONAL,
    boundaries            SEQUENCE (SIZE(1..10)) OF TSP-BoundaryID OPTIONAL
}
```

**The following data frames directly use this data frame:**

[TSPStrategyEntry](#)

**No messages were identified that directly use this data frame**

## B.296 Data Frame TSPBoundaryEntry {TSP 1012}

### Use:

Provide a boundary definition. The boundary is used to specify limits within which signal priority is allowed for an intersection or group of intersections.

### Remarks:

### ASN1:

```
TSPBoundaryEntry ::= SEQUENCE {
    boundaryID           TSP-BoundaryID,
    metadata              CPTRowMetaDataTable OPTIONAL,
    boundaryPolygon       SPPolygon
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[TspBusinessRules](#)

## B.297 Data Frame TSPEventLogEntry {TSP 1005}

### Use:

Convey information about a signal priority logged event.

### Remarks:

This data frame is used for both PRS and PRG transfers of signal priority event history to the transit control center, or data repository. Optional fields are included if applicable to the event type specified in the frame. Normally the PRS will use the strategy employed field and not the actual-wait-time field, and vice versa for the PRG.

### ASN1:

```
TSPEventLogEntry ::= SEQUENCE {
    event-type          SCP-LoggedEventType,
    event-time          CPT-DateTime,
    intersection        CPTIntersectionIden,
    requestID           SCP-PriorityRequestID OPTIONAL,
    request-time        CPT-DateTime OPTIONAL,
    disposition         SCP-StatusCodeForPRG OPTIONAL,
    disposition-time   CPT-DateTime OPTIONAL,
    granted              CPT-Boolean OPTIONAL,
    grant-duration      SCP-TimeInterval OPTIONAL,
    grant-records        SEQUENCE (SIZE(1..10)) OF TSPGrantRecord OPTIONAL,
    vin                  CPT-VIN OPTIONAL,
    vehicleClassType    SCP-VehicleClassType OPTIONAL,
    serviceStrategyNumber SCP-PriorityStrategyNumber OPTIONAL,
    timeOfServiceDesired SCP-TimeInterval OPTIONAL,
    timeOfEstimatedDeparture SCP-TimeInterval OPTIONAL,
    preemption-vehicle CPT-VIN OPTIONAL,
    actual-wait-time    SCP-TimeInterval OPTIONAL,
    strategyEmployed    SCP-PriorityStrategyNumber OPTIONAL
}
```

No data frames were identified that directly use this data frame

The following messages directly use this data frame:

[ScpEventLog](#)  
[TspEventLogUnload](#)

## B.298 Data Frame TSPGrantRecord {TSP 1018}

### Use:

Define a grant type and duration in the context of a priority request.

### Remarks:

### ASN1:

```
TSPGrantRecord ::= SEQUENCE {
    grant-type          TSP-GrantType,
    grant-time          SCP-TimeInterval
}
```

The following data frames directly use this data frame:

[TSPEventLogEntry](#)

No messages were identified that directly use this data frame

## B.299 Data Frame TSPIntersectionEntry {TSP 1008}

### Use:

Provide intersection information in the data load for a PRG.

### Remarks:

If the intersection scenario field is present, it specifies the NTCIP scenario number that applies to the intersection, or '5' indicating a TCIP-defined scenario.

### ASN1:

```
TSPIntersectionEntry ::= SEQUENCE {
    intersection          CPTIntersectionIden,
    metadata              CPTRowMetaData OPTIONAL,
    boundaryID           TSP-BoundaryID,
    intersectionIP        CPT-IPAddress OPTIONAL,
    intersectionPort      CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionModem     TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr   TSP-DropAddr OPTIONAL,
    intersectionScenario   CPT-GenericCounter OPTIONAL,
    emitter                CPT-Boolean,
    intersection-approaches SEQUENCE (SIZE(1..10)) OF TSPtmsIntersectionApproach
}
```

No data frames were identified that directly use this data frame

**The following messages directly use this data frame:**

[TspBusinessRules](#)

## B.300 Data Frame TSPPRGInputsCCEntry {TSP 1014}

**Use:**

Provides a single PRGInputs set for a fixed PRG.

**Remarks:**

**ASN1:**

```
TSPPRGInputsCCEntry ::= SEQUENCE {
    status          TSPStatus,
    vin             CPT-VIN,
    block           SCHBlockIden,
    intersectionParam TSPTmsIntersectionParam,
    ...  -- # LOCAL_CONTENT
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[TspPRGInputsCC](#)

## B.301 Data Frame TSPScenario5Intersection {TSP 1017}

**Use:**

Provide information about a scenario 5 equipped intersection to the VLU.

**Remarks:**

**ASN1:**

```
TSPScenario5Intersection ::= SEQUENCE {
    intersection      CPTIntersectionIden,
    metadata          CPTRowMetaData OPTIONAL,
    intersection-location LRMS.GeoLocation,
    stop-bar-locations SEQUENCE \(SIZE\(1..8\)\) OF LRMS.GeoLocation,
    prg-address       CPT-IPAddress OPTIONAL,
    prg-port          CPT-UDP-TCP-PortNumber OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[TspBusinessRules](#)

## B.302 Data Frame TSPScheduleEntry {TSP 1011}

**Use:**

Provide information about a PTV's schedule approach to an intersection.

**Remarks:**

Each trip corresponds to the time occupying the same position in the other list. Thus the PTV performing the third id in the trips field is due to arrive at the intersection at the time specified by the third entry in the times field.

**ASN1:**

```
TSPScheduleEntry ::= SEQUENCE {
    intersection          CPTIntersectionIden,
    trips                 SEQUENCE (SIZE(1..5000)) OF SCHTripIden,
    times                SEQUENCE (SIZE(1..5000)) OF SCH-Time
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[TspBusinessRules](#)

## B.303 Data Frame TSPStatus {TSP 1013}

### Use:

Near-real-time operating status of a PTV input to a PRG.

### Remarks:

Negative adherence offset signifies early. The doorStatusOpen field signifies at least one door is open if true. The requestCancel field signifies that any previous request should be cancelled if true. The override field, if present & true, indicates that the PTV should not be granted priority, even if it is eligible for priority under the current PRG policies/business rules. The alert field, if present & true, indicates that a security alert has been triggered for this PTV. The loc-xxx fields signify the current location of the vehicle.

### ASN1:

```

TSPStatus ::= SEQUENCE {
    scheduleDeviation          OB-ScheduleAdherenceOffset,
    loc-lat                     LRMS.Latitude,
    loc-lon                     LRMS.Longitude,
    loc-dir                     LRMS.Angle,
    loc-spd                     OB-J1587-VelocityVectorSpeed,
    loc-quality                 SPDataQuality OPTIONAL,
    currentTime                 CPT-DateTime,
    doorStatusOpen              CPT-Boolean,
    requestCancel               CPT-Boolean,
    currentRoute                SCHRouteIden OPTIONAL,
    currentRun                  SCHRUnIden OPTIONAL,
    currentTrip                 SCHTripIden OPTIONAL,
    currentOperator              CPTOperatorIden OPTIONAL,
    passengersOnboard           OB-J1587-PassengerCounterPatronCount OPTIONAL,
    express                      CPT-Boolean OPTIONAL,
    scheduleId                  SCH-TimetableVersionID OPTIONAL,
    override                     CPT-Boolean OPTIONAL,
    alert                        CPT-Boolean OPTIONAL,
    stopRequested                CPT-Boolean OPTIONAL,
    ...  -- # LOCAL_CONTENT
}

```

**The following data frames directly use this data frame:**

[TSPPRGInputsCCEntry](#)

**The following messages directly use this data frame:**

[TspPRGInputsPTV](#)

## B.304 Data Frame TSPStrategyEntry {TSP 1009}

### Use:

Define the constraints that must be met to use a specific TSP strategy for an intersection or group of intersections.

### Remarks:

Absent fields do not constrain the use of the strategy. For example if the "strategyTimeBegin" field absent then there is no earliest time to implement the strategy. If there are no "allowed-intersections" then all intersection are allowed. The strategyTimeBegin and end fields indicate times of day when the strategy entry is allowed to be used. Thus an entry can specify a begin time after the morning rush hour and an end time before the evening rush hour if it is intended to be used only between the two rush intervals.

### ASN1:

```
TSPStrategyEntry ::= SEQUENCE {
    resultantStrategyID          SCP-PriorityStrategyNumber,
    resultantClassType           SCP-VehicleClassType,
    resultantClassLevel          SCP-VehicleClassLevel,
    strategyTimeBegin            SCH-Time OPTIONAL,
    strategyTimeEnd              SCH-Time OPTIONAL,
    schLateMinimum               OB-ScheduleAdherenceOffset OPTIONAL,
    schLateMaximum               OB-ScheduleAdherenceOffset OPTIONAL,
    schRecoveryMinimum           OB-ScheduleAdherenceOffset OPTIONAL,
    prgLoadMinimum               OB-J1587-PassengerCounterPatronCount OPTIONAL,
    travelPath                   TSP-IntersectionPath OPTIONAL,
    allowed-boundaries           SEQUENCE (SIZE(1..10000)) OF TSP-BoundaryID,
    allowed-intersections         SEQUENCE (SIZE(1..10000)) OF TSPAllowedIntersection OPTIONAL
}
```

**No data frames were identified that directly use this data frame**

**The following messages directly use this data frame:**

[TspBusinessRules](#)

### B.305 Data Frame TSPTmsIntersectionApproach {TSP 1016}

#### Use:

Define parameters related to an approach to an intersection by a PTV.

#### Remarks:

#### ASN1:

```
TSPTmsIntersectionApproach ::= SEQUENCE {
    approachID          TSP-ApproachID,
    approachAngle       LRMS.Angle,
    departAngle         LRMS.Angle,
    travelPath          TSP-IntersectionPath,
    stopBarLocation     LRMS.GeoLocation OPTIONAL,
    requestBeginLocation LRMS.GeoLocation OPTIONAL,
    requestEndLocation  LRMS.GeoLocation OPTIONAL,
    requestCancelLocation LRMS.GeoLocation OPTIONAL,
    allowedStrategies   SEQUENCE (SIZE(1..10)) OF SCP-PriorityStrategyNumber
}
```

The following data frames directly use this data frame:

[TSPIntersectionEntry](#)  
[TSPTmsIntersectionParam](#)

No messages were identified that directly use this data frame

### B.306 Data Frame TSPTmsIntersectionParam {TSP 1015}

#### Use:

Convey information about an intersection for use by PRG.

#### Remarks:

#### ASN1:

```
TSPTmsIntersectionParam ::= SEQUENCE {
    intersection          CPTIntersectionIden,
    boundary              TSP-BoundaryID OPTIONAL,
    intersectionIP        CPT-IPAddress OPTIONAL,
    intersectionPort      CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionModem    TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    approaches            SEQUENCE (SIZE(1..25)) OF TSPTmsIntersectionApproach OPTIONAL
}
```

The following data frames directly use this data frame:

[TSPPRGInputsCCEntry](#)

**No messages were identified that directly use this data frame**

## Annex C - TCIP Messages

### C.1 Message CcAcceptCallRequest {Cc 2036}

#### Use:

Notify the VLU/MDT that an operator requested voice call is in effect.

#### Remarks:

#### ASN1:

```
CcAcceptCallRequest ::= SEQUENCE {
    call-type-requested      CC-ResponseRequestType,
    call-type-actual          CC-RadioVoiceControl,
    channel                  CPT-ChannelID OPTIONAL
}
```

#### The following dialogs use this message:

[Operator Initiated Voice Call](#)

### C.2 Message CcAckManualAlarm {Cc 2043}

#### Use:

Acknowledge a manually initiated alarm.

#### Remarks:

1. The alarm-id field identifies the type of the original alarm and the time field identifies the time of the original alarm to ensure that if multiple alarms are simultaneously active the correct alarm gets acknowledged.

#### ASN1:

```
CcAckManualAlarm ::= SEQUENCE {
    alarm-id                CC-ManualAlarmID,
    alarm-time               CPT-DateTime
}
```

#### The following dialogs use this message:

[Report Operator Alarm](#)

### C.3 Message CcAdherencePerformance {Cc 2091}

#### Use:

Provide information on historical schedule adherence from one business system to another.

#### Remarks:

The earliest, latest, routes, patterns, trips, and timepoints fields are used to specify the filters used to determine what records to return. The records field should only be absent if no records matched the filter criteria.

#### ASN1:

```
CcAdherencePerformance ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    earliest              CPT-DateTime OPTIONAL,
    latest                CPT-DateTime OPTIONAL,
    routes                SEQUENCE (SIZE(1..1000)) OF SCHRouteIden OPTIONAL,
    patterns              SEQUENCE (SIZE(1..1000)) OF SCHPatternIden OPTIONAL,
    timepoints            SEQUENCE (SIZE(1..1000)) OF SCHTimepointIden OPTIONAL,
    trips                 SEQUENCE (SIZE(1..1000)) OF SCHTripIden OPTIONAL,
    records               SEQUENCE (SIZE(1..100000)) OF CCHistoricalAdherenceRecord
OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Publish Adherence Performance](#)

### C.4 Message CcAdherencePerformanceSub {Cc 2092}

#### Use:

Request information on historical schedule adherence from a business system.

#### Remarks:

The earliest, latest, routes, patterns, trips, and timepoints fields are used to specify the filters used to determine what records to return. This message is used to elicit the CcAdherencePerformance message.

#### ASN1:

```
CcAdherencePerformanceSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    earliest              CPT-DateTime OPTIONAL,
    latest                CPT-DateTime OPTIONAL,
    routes                SEQUENCE (SIZE(1..1000)) OF SCHRouteIden OPTIONAL,
    patterns              SEQUENCE (SIZE(1..1000)) OF SCHPatternIden OPTIONAL,
    timepoints            SEQUENCE (SIZE(1..1000)) OF SCHTimepointIden OPTIONAL,
    trips                 SEQUENCE (SIZE(1..1000)) OF SCHTripIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Adherence Performance](#)

## C.5 Message CcAnnouncementInfo {Cc 2023}

**Use:**

Provide information to the onboard annunciation system to allow the destination sign to be updated, and for audio and visual stop announcements to be made automatically.

**Remarks:**

1. The destination field specifies destination messages that can later be displayed on the destination sign(s). These records are overwritten if another record with the same destinationID is received. Otherwise they remain stored in the annunciation system. Consequently this field is not required when there are no destination messages to add or alter.
2. The destinationSignPlan field defines what destination sign content will be displayed during what portions of what trip(s). This structure is intended to allow up to 10 destination sign messages to be scrolled/alternated during a trip segment.
3. The audioFormat field identifies the format to be used in audio files conveyed with this message. If audio is not supported by the onboard equipment, this field is omitted.
4. The defaults field governs the trigger for an automated announcement for any stop. If distance-before is present, it specifies the distance in advance of the stop at which the stop announcement is triggered. If the time-before field is present, it indicates that the announcement should be triggered at a time that will allow the announcement to play and END at the specified time in advance of the stop. For example if the announcement (including before and after audio) takes 7 seconds to play and the time-before is 5 seconds, then the announcement should be started  $7+5=12$  seconds before the PTV is projected to arrive at the stop. Note that this implies that the VLU calculates both the length of the announcement and the estimated arrival time of the PTV at the stoppoint.
5. The beforeStopAudio and beforeStopText fields provide announcement content to precede the name of the announced stop (e.g. "The next stop is..."). If the stop names are to be announced without preamble, this field is omitted.
6. The afterStopAudio and afterStopText fields provide announcement text to follow the stop name similar to beforeStopAudio and beforeStopText.
7. The stopNames field provides the audio and/or text names of the bus stops for use in announcing the stops.
8. The event-announcements field provides announcements (usually not associated with time or stoppoints) that are made enroute.
9. The canned announcements can be triggered remotely by the dispatcher, or triggered by an event.
10. The atStopBeforeNameAudio, atStopAfterNameAudio, atStopBeforeNameText, atStopAfterNameText, atStopBeforeNameTextAddLangs, atStopAfterNameTextAddLangs, atStopBeforeNameAudioFileName, and atStopAfterNameAudioFileName, are used to construct audio and/or text announcements at the stop in a similar fashion to the manner in which the beforeStopAudio, afterStopAudio, beforeStopText, afterStopText, beforeStopAddLangs, afterStopAddLangs, beforeStopFileName, and afterStopFileName are used to create next stop announcements in advance of a stop.

**ASN1:**

```
CcAnnouncementInfo ::= SEQUENCE {
    fileHeader           CPTLoadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    destinations          SEQUENCE (SIZE(1..500)) OF CDDestinationSignMessage OPTIONAL,
    destinationSignPlanRules SEQUENCE (SIZE(1..10000)) OF CCDestinationSignRule OPTIONAL,
    audioFormat           PI-AudioFormat OPTIONAL,
    distance-before       LRMS.Distance,
    time-before            CPT-Duration OPTIONAL,
    beforeStopAudio        PI-BinaryAudioData OPTIONAL,
    beforeStopText          PI-DMSMessage OPTIONAL,
    beforeStopTextLangs     CPTAdditionalLanguageContents OPTIONAL,
```

```
beforeStopFilename      CPT-Footnote OPTIONAL,
afterStopAudio          PI-BinaryAudioData OPTIONAL,
afterStopText           PI-DMSMessage OPTIONAL,
afterStopTextLangs      CPTAdditionalLanguageContents OPTIONAL,
afterStopFilename       CPT-Footnote OPTIONAL,
stopDataSets            SEQUENCE (SIZE(1..25000)) OF CCStopAnnunciationRecord OPTIONAL,
event-announcements    SEQUENCE (SIZE(1..10000)) OF PIEventAnnouncement OPTIONAL,
cannedAnnouncements     SEQUENCE (SIZE(1..500)) OF CCCannedAnnouncementRecord OPTIONAL,
routeWelcomeAnns        SEQUENCE (SIZE(1..2000)) OF CCRouteWelcomeAnnouncement OPTIONAL,
atStopBeforeNameAudio   PI-BinaryAudioData OPTIONAL,
atStopAfterNameAudio    PI-BinaryAudioData OPTIONAL,
atStopBeforeNameText    PI-DMSMessage OPTIONAL,
atStopBeforeNameTextLangs CPTAdditionalLanguageContents OPTIONAL,
atStopAfterNameText     PI-DMSMessage OPTIONAL,
atStopAfterNameTextLangs CPTAdditionalLanguageContents OPTIONAL,
atStopBeforeNameFileName CPT-Footnote OPTIONAL,
atStopAfterNameFileName CPT-Footnote OPTIONAL
}
```

The following dialogs use this message:

[Load Annunciation Information](#)

## C.6 Message CcAnnunciatorCallSetup {Cc 2039}

Use:

Notify the annunciator to connect to a voice radio call.

Remarks:

ASN1:

```
CcAnnunciatorCallSetup ::= SEQUENCE {
  call-type          CC-RadioVoiceControl
}
```

The following dialogs use this message:

[Dispatcher Initiated Voice Radio Call](#)

## C.7 Message CcCallTermination {Cc 2040}

### Use:

Notify the annunciator to disconnect from a voice radio call.

### Remarks:

#### ASN1:

```
CcCallTermination ::= SEQUENCE {
    call-type             CC-RadioVoiceControl
}
```

The following dialogs use this message:

[Dispatcher Initiated Voice Radio Call](#)  
[Operator Initiated Voice Call](#)

## C.8 Message CcCancelDetour {Cc 2027}

### Use:

Notify the onboard equipment (Vehicle Logic Unit or Mobile Data Terminal) of a detour cancellation.

### Remarks:

1. The end-time field is used to notify the equipment of an end time in advance of the event's occurrence. Lack of an end-time field implies the cancellation is immediate.
2. The detour-name must match the detour-name in the CcNotifyDetour message exactly.

#### ASN1:

```
CcCancelDetour ::= SEQUENCE {
    end-time               CPT-DateTime OPTIONAL,
    detourID              CC-DetourID
}
```

The following dialogs use this message:

[Report Cancel Detour](#)

## C.9 Message CcCancelDetourAck {Cc 2028}

### Use:

Acknowledge that a PTV has received a detour cancellation.

### Remarks:

#### ASN1:

```
CcCancelDetourAck ::= SEQUENCE {
    detourID             CC-DetourID
}
```

The following dialogs use this message:

[Report\\_Cancel\\_Detour](#)

## C.10 Message CcCancelTrips {Cc 2076}

### Use:

Specify scheduled trips to be cancelled.

### Remarks:

#### ASN1:

```
CcCancelTrips ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    time-cancelled     CPT-DateTime,
    cancel-records      SEQUENCE (SIZE(1..100)) OF CCTripCancellationRecord,
    ...    -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Notify\\_Trip\\_Cancellations](#)

## C.11 Message CcCannedMessageText {Cc 2019}

### Use:

Provide an load of canned message content definitions for use in sending canned messages between the VehicleLogicUnit or MobileDataTerminal (VLU/MDT) and the Computer Aided Dispatch (CAD) system.

### Remarks:

In an initial load, the canned-messages field and the take-lists field provide complete lists of messages and takes. In row updates, those fields convey additions or replacements. The delete-fields are used only in row updates.

### ASN1:

```
CcCannedMessageText ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    canned-messages     SEQUENCE (SIZE(1..100)) OF CCCannedMsgDefinition OPTIONAL,
    take-lists          SEQUENCE (SIZE(1..100)) OF CCTakeListItemDefinition OPTIONAL,
    delete-take-lists   SEQUENCE (SIZE(1..100)) OF CCCannedMsgTakeListIden OPTIONAL,
    delete-msgs         SEQUENCE (SIZE(1..100)) OF CCCannedMsgIden OPTIONAL
}
```

**The following dialogs use this message:**

[Load Canned Message Text](#)

## C.12 Message CcChangeAssignments {Cc 2030}

### Use:

Change previously delivered assignment(s) of operators or vehicles to work.

### Remarks:

### ASN1:

```
CcChangeAssignments ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    commandID          CPT-CommandID,
    time                CPT-DateTime, -- time the change is sent
    operator-changes    SEQUENCE (SIZE(1..1000)) OF CCOperatorAssignmentChange OPTIONAL,
    vehicle-changes     SEQUENCE (SIZE(1..1000)) OF CCVehicleAssignmentChange OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Command Change Assignments](#)

### C.13 Message CcChangeAssignmentsAck {Cc 2031}

**Use:**

Acknowledge receipt of operator or vehicle assignment changes.

**Remarks:**

The bad-changes field indicates that some commanded changes were invalid (e.g. specified a nonexistent trip, block or run). If bad-changes is set to true, than invalid operator or vehicle changes are included in either or both of the following two fields. If bad-changes is false, the following two fields must be absent.

**ASN1:**

```
CcChangeAssignmentsAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    commandID          CPT-CommandID,
    bad-changes         CPT-Boolean,
    bad-operator-changes SEQUENCE (SIZE(1..1000)) OF CCOperatorAssignmentChange OPTIONAL,
    bad-vehicle-changes SEQUENCE (SIZE(1..1000)) OF CCVehicleAssignmentChange OPTIONAL
}
```

**The following dialogs use this message:**

[Command Change Assignments](#)

### C.14 Message CcConnProtAck {Cc 2074}

**Use:**

Acknowledge an instruction to wait at a stoppoint until a specified time to protect a transfer connection.

**Remarks:**

**ASN1:**

```
CcConnProtAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    requester-id        CC-TravelerRequestID, -- assigned by requester entity
    requester-time       CPT-DateTime, -- time requested
    requester-vehicle     CPTVehicleIden OPTIONAL,
    requester-route       SCHRouteIden,
    requester-route-direction LRMS.Direction OPTIONAL,
    to-route-direction    LRMS.Direction OPTIONAL,
    to-route              SCHRouteIden,
    to-stoppoint          CPTStoppointIden,
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,
    requester-wheelchair   CPT-Boolean,
    central-id            CC-TravelerRequestID,
    wait-until            CPT-DateTime,
    waiter-PTV             CPTVehicleIden
}
```

**The following dialogs use this message:**

[Request Transfer Connection Protection](#)

## C.15 Message CcConnProtAppr {Cc 2075}

**Use:**

Notify a requester that a transfer connection protection request was approved.

**Remarks:**

The wait-until time may be earlier in this message than in the CcConnProtWait message to avoid customer complaints due to small time discrepancies.

**ASN1:**

```
CcConnProtAppr ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    requester-id       CC-TravelerRequestID, -- assigned by requester entity
    requester-time     CPT-DateTime, -- time requested
    requester-vehicle  CPTVehicleIden OPTIONAL,
    requester-route    SCHRouteIden,
    requester-route-direction LRMS.Direction OPTIONAL,
    to-route-direction LRMS.Direction OPTIONAL,
    to-route           SCHRouteIden,
    to-stoppoint       CPTStoppointIden,
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,
    requester-wheelchair CPT-Boolean,
    central-id         CC-TravelerRequestID,
    wait-until         CPT-DateTime,
    waiter-PTV         CPTVehicleIden
}
```

**The following dialogs use this message:**

[Request Transfer Connection Protection](#)

**C.16 Message CcConnProtDeny {Cc 2072}****Use:**

Deny a requested transfer protection request.

**Remarks:****ASN1:**

```
CcConnProtDeny ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    requester-id        CC-TravelerRequestID, -- assigned by requester entity
    requester-time       CPT-DateTime, -- time requested
    requester-vehicle    CPTVehicleIden OPTIONAL,
    requester-route      SCHRouteIden,
    requester-route-direction LRMS.Direction OPTIONAL,
    to-route-direction   LRMS.Direction OPTIONAL,
    to-route             SCHRouteIden,
    to-stoppoint         CPTStoppointIden,
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,
    requester-wheelchair  CPT-Boolean,
    reason               CC-TravelerDenyReason OPTIONAL
}
```

**The following dialogs use this message:**

[Request Transfer Connection Protection](#)

**C.17 Message CcConnProtReq {Cc 2071}****Use:**

Request to have a transfer connection protected, by having the destination PTV to wait.

**Remarks:****ASN1:**

```
CcConnProtReq ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    requester-id        CC-TravelerRequestID, -- assigned by requester entity
    requester-time       CPT-DateTime, -- time requested
    requester-vehicle    CPTVehicleIden OPTIONAL,
    requester-route      SCHRouteIden,
    requester-route-direction LRMS.Direction OPTIONAL,
    to-route-direction   LRMS.Direction OPTIONAL,
    to-route             SCHRouteIden,
    to-stoppoint         CPTStoppointIden,
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,
    requester-wheelchair  CPT-Boolean
}
```

**The following dialogs use this message:**

[Request Transfer Connection Protection](#)

## C.18 Message CcConnProtWait {Cc 2073}

**Use:**

Instruct a PTV to wait for a passenger attempting to make a connection.

**Remarks:**

**ASN1:**

```
CcConnProtWait ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    requester-id               CC-TravelerRequestID, -- assigned by requester entity
    requester-time              CPT-Datetime, -- time requested
    requester-vehicle            CPTVehicleIden OPTIONAL,
    requester-route              SCHRouteIden,
    requester-route-direction    LRMS.Direction OPTIONAL,
    to-route-direction           LRMS.Direction OPTIONAL,
    to-route                     SCHRouteIden,
    to-stoppoint                CPTStoppointIden,
    requester-eta-at-stoppoint   CPT-Datetime OPTIONAL,
    requester-wheelchair          CPT-Boolean,
    central-id                   CC-TravelerRequestID,
    wait-until                  CPT-Datetime,
    waiter-PTV                   CPTVehicleIden
}
```

**The following dialogs use this message:**

[Request Transfer Connection Protection](#)

## C.19 Message CcDGPS {Cc 2104}

### Use:

Convey differential GPS data from a transit business system to subscribing components or other business systems that require the correction data.

### Remarks:

### ASN1:

```
CcDGPS ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    corrections               SEQUENCE (SIZE(1..32)) OF OBBusDGPSDifferentialCorrection
}
```

The following dialogs use this message:

[Publish Differential GPS Data](#)

## C.20 Message CcDGPSPush {Cc 2103}

### Use:

Convey differential GPS data from a transit business system to components or other business systems that require the correction data.

### Remarks:

### ASN1:

```
CcDGPSPush ::= SEQUENCE {
    header                  CPTPushHeader,
    corrections              SEQUENCE (SIZE(1..32)) OF OBBusDGPSDifferentialCorrection
}
```

The following dialogs use this message:

[Push Differential GPS Data](#)

## C.21 Message CcDGPSSub {Cc 2105}

### Use:

Allows a subscriber to request differential GPS data from a transit business system.

### Remarks:

### ASN1:

```
CcDGPSSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader
}
```

The following dialogs use this message:

[Publish Differential GPS Data](#)

## C.22 Message CcDenyCallRequest {Cc 2035}

### Use:

Notify the VLU/MDT that an operator-requested voice call has been denied by the dispatcher.

### Remarks:

Some agencies do not want their dispatchers to have call denial capabilities, and may instruct their developers to disable this capability.

### ASN1:

```
CcDenyCallRequest ::= SEQUENCE {
    call-type           CC-ResponseRequestType
}
```

The following dialogs use this message:

[Operator Initiated Voice Call](#)

### C.23 Message CcDetourAck {Cc 2025}

**Use:**

Acknowledge the receipt of a detour by a PTV.

**Remarks:**

**ASN1:**

```
CcDetourAck ::= SEQUENCE {
    detourID          CC-DetourID
}
```

**The following dialogs use this message:**

[Report\\_Detour](#)

### C.24 Message CcDispatchCallEnd {Cc 2041}

**Use:**

Notify a separate MDT that a dispatcher-initiated voice call is being disconnected.

**Remarks:**

**ASN1:**

```
CcDispatchCallEnd ::= SEQUENCE {
    call-type        CC-RadioVoiceControl
}
```

**The following dialogs use this message:**

[Dispatcher Initiated Voice Radio Call](#)

## C.25 Message CcDispatchCallSetup {Cc 2037}

### Use:

Notify the VLU/MDT that a dispatcher-initiated voice call is being established.

### Remarks:

### ASN1:

```
CcDispatchCallSetup ::= SEQUENCE {
    call-type          CC-RadioVoiceControl,
    channel           CPT-ChannelID OPTIONAL
}
```

The following dialogs use this message:

[Dispatcher Initiated Voice Radio Call](#)

## C.26 Message CcDispatchMessage {Cc 2016}

### Use:

Provide a canned or text message from the dispatch center to the vehicle.

### Remarks:

Either a text message or a canned message can be included. If a canned message is used takes can be used to fill in the blanks to create parameterized displays. The "Load Canned Message Text" and "Load Canned Message Takes" dialogs are used to store the canned messages and take lists into the VLU/MDT.

### ASN1:

```
CcDispatchMessage ::= SEQUENCE {
    commandID        CPT-CommandID,
    languages         CPTLanguageList OPTIONAL,
    time             CPT-DateTime,
    text-msg          CPT-Footnote OPTIONAL,
    text-msgLangs     CPTAdditionalLanguageContents OPTIONAL,
    cannedMsg        CCCanMsgIden OPTIONAL,
    takes            SEQUENCE (SIZE(1..100)) OF CCTakeIden OPTIONAL
}
```

The following dialogs use this message:

[Report Dispatch Message](#)

## C.27 Message CcDispatchMessageAck {Cc 2021}

### Use:

Provide an acknowledgement to the CAD system that an operator saw a canned or text message from the dispatcher.

### Remarks:

1. The positive-ack field is used to indicate that the operator generated a positive response. Not all implementations support a negative response capability.
2. The error field is only included if an error precluded delivery or the message. For example, an invalid canned message or take specification. The error field is always TRUE if present.

### ASN1:

```
CcDispatchMessageAck ::= SEQUENCE {
    commandID          CPT-CommandID,
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    time                CPT-DateTime,
    positive-Ack        CPT-Boolean,
    error               CPT-Boolean OPTIONAL
}
```

### The following dialogs use this message:

[Report Dispatch Message](#)

## C.28 Message CcFleetHealthAlarm {Cc 2066}

### Use:

Provide fleet health alarm information.

### Remarks:

The vehicles field should only be included if it was present in the subscription request.

### ASN1:

```
CcFleetHealthAlarm ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    alarms                 SEQUENCE (SIZE(1..25000)) OF CCPTVAalarm OPTIONAL,
    status-reports         SEQUENCE (SIZE(1..25000)) OF OBHealthStatusRecord OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

### The following dialogs use this message:

[Publish Fleet Health Alarms](#)

## C.29 Message CcFleetHealthAlarmSub {Cc 2065}

### Use:

Request PTV fleet health information.

### Remarks:

If the vehicles field is absent, all vehicles are requested. This message is used to elicit the CcFleetHealthAlarm message.

### ASN1:

```
CcFleetHealthAlarmSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    vehicles              SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Fleet Health Alarms](#)

## C.30 Message CcFleetLocation {Cc 2064}

### Use:

Provide PTV fleet location information.

### Remarks:

### ASN1:

```
CcFleetLocation ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    Publicvehicles        CPTVehicleIden,
    locations              SEQUENCE (SIZE(1..25000)) OF CCPTVLocation,
    ...  -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Publish Fleet Locations](#)

### C.31 Message CcFleetLocationSub {Cc 2063}

#### Use:

Request PTV fleet location information.

#### Remarks:

If the vehicles field is absent, all vehicles are requested. This message is used to elicit the CcFleetLocation message.

#### ASN1:

```
CcFleetLocationSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    vehicles              SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Fleet Locations](#)

### C.32 Message CcFleetMechanicalData {Cc 2079}

#### Use:

Convey fleet mechanical historical data to a business system.

#### Remarks:

#### ASN1:

```
CcFleetMechanicalData ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    groups                SEQUENCE (SIZE(1..100)) OF CPT-FleetSubset OPTIONAL,
    selected-vehicles     SEQUENCE (SIZE(1..30000)) OF CPTVehicleIden OPTIONAL,
    selected-routes       SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    vehicle-mech-records  SEQUENCE (SIZE(1..30000)) OF CCVehicleMechRecord OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Publish Fleet Mechanical Data](#)

### C.33 Message CcFleetMechanicalDataSub {Cc 2080}

#### Use:

Request mechanical historical data from the fleet or part of the fleet.

#### Remarks:

This message is used to elicit the CcFleetMechanicalData message. This message is used to elicit the CcFleetMechanicalData message.

#### ASN1:

```
CcFleetMechanicalDataSub ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    groups                 SEQUENCE (SIZE(1..100)) OF CPT-FleetSubset OPTIONAL,
    selected-vehicles      SEQUENCE (SIZE(1..30000)) OF CPTVehicleIden OPTIONAL,
    selected-routes        SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Fleet Mechanical Data](#)

### C.34 Message CcFleetPassengerData {Cc 2077}

#### Use:

Convey passenger count historical data to a business system.

#### Remarks:

#### ASN1:

```
CcFleetPassengerData ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    groups                 SEQUENCE (SIZE(1..100)) OF CPT-FleetSubset OPTIONAL,
    selected-vehicles      SEQUENCE (SIZE(1..30000)) OF CPTVehicleIden OPTIONAL,
    selected-routes        SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    vehicle-pass-records   SEQUENCE (SIZE(1..30000)) OF CCVehiclePassRecord OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Publish Fleet Passenger Data](#)

### C.35 Message CcFleetPassengerDataSub {Cc 2078}

**Use:**

Request historical passenger count data for the fleet or part of the fleet.

**Remarks:**

This message is used to elicit the CcFleetPassengerData message.

**ASN1:**

```
CcFleetPassengerDataSub ::= SEQUENCE {
    subscription-info      CPTSSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    groups                  SEQUENCE (SIZE(1..100)) OF CPT-FleetSubset OPTIONAL,
    selected-vehicles       SEQUENCE (SIZE(1..30000)) OF CPTVehicleIden OPTIONAL,
    selected-routes         SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Fleet Passenger Data](#)

### C.36 Message CcGISFile {Cc 2102}

**Use:**

Provide a specified version of GIS information for load to a vehicle.

**Remarks:**

The boundary box field must be a rectangle defining the geographical extent of the map information. Features shall only be included if all or part of the feature falls into the boundary box. A legend is not provided by this structure. An implementation may create a legend that reflects the line sizes, symbology etc. used in a rendered map, based on local requirements. The deleted--s fields indicate items that were deleted from the GIS since the specified time of a previous load. The absence of the layers and/or features fields indicates that the message is a row update, and that no layers or features changed (other than deletions) during the specified period. The highlights field, if present, indicates that the specified features should be highlighted when displayed on a map.

**ASN1:**

```
CcGISFile ::= SEQUENCE {
    fileHeader            CPTLoadFileHeader,
    languages              CPTLanguageList OPTIONAL,
    boundary-box          SPPolygon,
    layers                 SEQUENCE (SIZE(1..200)) OF SPGISLayer OPTIONAL,
    features               SEQUENCE (SIZE(1..20000)) OF SPFeature OPTIONAL, -- data to
                           convey an optional associated street network agencies may elect to omit some or all streets or
                           street segments from the map
    streets                SEQUENCE (SIZE(1..10000)) OF LRMS.StreetInfo OPTIONAL,
    nodes                  SEQUENCE (SIZE(1..10000)) OF LRMS.NodeAttribute OPTIONAL,
    segments               SEQUENCE (SIZE(1..10000)) OF SPStreetSeg OPTIONAL,
    deleted-layers         SEQUENCE (SIZE(1..200)) OF CPT-FeatureType OPTIONAL,
```

```

deleted-features      SEQUENCE (SIZE(1..20000)) OF SPFeature OPTIONAL,
deleted-streets       SEQUENCE (SIZE(1..10000)) OF LRMS.StreetInfo OPTIONAL,
deleted-nodes         SEQUENCE (SIZE(1..10000)) OF LRMS.NodeAttribute OPTIONAL,
deleted-segments     SEQUENCE (SIZE(1..10000)) OF SPStreetSeg OPTIONAL,
highlights           SEQUENCE (SIZE(1..10000)) OF CPTGenericIden OPTIONAL,
... -- # LOCAL_CONTENT
}

```

**The following dialogs use this message:**

[Load GIS File](#)

### C.37 Message CcJ1939FaultCodeList {Cc 2109}

**Use:**

Convey fault code information from a vehicle. The vehicle reports the fault codes periodically.

**Remarks:**

In addition to the fault code information a Diagnostic Trouble Code includes information on Lamp Status Parameters. The first is the Protect Lamp Status which indicates a problem with a vehicle system that is most likely not electronic subsystem related. (e.g., Coolant Temperature has exceeded its defined range.) The second is the Amber Warning Lamp Status which indicates a problem with the vehicle system but the vehicle does not need to be stopped immediately. The Red Stop Lamp Status indicates a severe problem that warrants stopping the vehicle. The Malfunction Indicator Lamp status indicates that there is an emissions related trouble code active. Each of the lamp statuses above has a corresponding "Flash Lamp Indicator" field that states whether the lamp indicator is flashing or not.

**ASN1:**

```

CcJ1939FaultCodeList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    vehicle               CPTVehicleIden,
    faults                SEQUENCE (SIZE(1..200)) OF CCJ1939FaultCode,
    protectLamp          CC-J1939LampStatus OPTIONAL,
    redLamp               CC-J1939LampStatus OPTIONAL,
    amberLamp             CC-J1939LampStatus OPTIONAL,
    malLamp               CC-J1939LampStatus OPTIONAL,
    flashProtectLamp     CC-J1939FlashLampStatus OPTIONAL,
    flashRedLamp          CC-J1939FlashLampStatus OPTIONAL,
    flashAmberLamp        CC-J1939FlashLampStatus OPTIONAL,
    flashMalLamp          CC-J1939FlashLampStatus OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Cc J-1939 Fault Codes](#)

### C.38 Message CcJ1939FaultCodeListSub {Cc 2110}

#### Use:

Request that a vehicle send fault code information.

#### Remarks:

In addition to the fault code information a Diagnostic Trouble Code includes information on Lamp Status Parameters. The first is the Protect Lamp Status which indicates a problem with a vehicle system that is most likely not electronic subsystem related. (e.g., Coolant Temperature has exceeded its defined range.) The second is the Amber Warning Lamp Status which indicates a problem with the vehicle system but the vehicle does not need to be stopped immediately. The Red Stop Lamp Status indicates a severe problem that warrants stopping the vehicle. The Malfunction Indicator Lamp status indicates that there is an emissions related trouble code active. Each of the lamp statuses above has a corresponding "Flash Lamp Indicator" field that states whether the lamp indicator is flashing or not.

#### ASN1:

```
CcJ1939FaultCodeListSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader
}
```

#### The following dialogs use this message:

[Publish Cc J-1939 Fault Codes](#)

### C.39 Message CcLR {Cc 2108}

#### Use:

This message is intended to allow agencies to craft their own short location reports using standard building blocks. Since only the rid field is required, location reports sent using this message may or may not be usable by applications across different applications.

#### Remarks:

In order to make the resulting XML message very short, the field names and the message name have been shortened substantially compared to the descriptive names used in other parts of the standard.

#### ASN1:

```
CcLR ::= SEQUENCE {
    rid           CPT-RequestIdentifier, -- only non optional field
    vid           CPT-VehicleID OPTIONAL,
    vag           CPT-AgencyID OPTIONAL, -- vehicle agency id
    vin           CPT-VIN OPTIONAL,
    vnm           CPT-VehicleName OPTIONAL,
    vds           CPT-VehicleDesignator OPTIONAL,
    vad           CPT-AgencyDesignator OPTIONAL, -- vehicle agency designator
    tid           CPT-TrainID OPTIONAL, -- train identifier
    tag           CPT-AgencyID OPTIONAL, -- train agency ID
    sin           CC-RouteAdherenceState OPTIONAL, -- status-info
    tri           SCH-TripID OPTIONAL, -- trip id
    tra           CPT-AgencyID OPTIONAL, -- trip agency id
```

```

trd           SCH-TripDesignator OPTIONAL, -- trip designator
trg           CPT-AgencyDesignator OPTIONAL, -- trip agency designator
tpi           SCH-TimepointID OPTIONAL, -- last timepoint id
tpa           CPT-AgencyID OPTIONAL, -- last timepoint agency id
tpn           SCH-TimepointName OPTIONAL, -- last timepoint name
tpd           SCH-TimepointDesignator OPTIONAL, -- last timepoint designator
tpg           CPT-AgencyDesignator OPTIONAL, -- last timepoint agency

designator
  dtr           CPT-DateTime OPTIONAL, -- date time reported
  lat           LRMS.Latitude OPTIONAL, -- latitude of vehicle when report was
generated
  lon           LRMS.Longitude OPTIONAL, -- longitude of vehicle when report was
generated
  dir           CPT-GenericCounter OPTIONAL, -- heading of vehicle when report
was generated in integer degrees
  spd           OB-J1587-VelocityVectorSpeed OPTIONAL, -- speed of vehicle when
report was generated
  qli           SP-QualityLevel OPTIONAL, -- qualitative indicator of data
  quality
    q90          LRMS.Distance OPTIONAL, -- circular error probable 90% distance
    q95          LRMS.Distance OPTIONAL, -- circular error probable 95% distance
    q99          LRMS.Distance OPTIONAL, -- circular error probable 99% distance
    q999         LRMS.Distance OPTIONAL, -- circular error probable 99.9%
  distance
    onb          passengers onboard
    odo          CPT-GenericCounter OPTIONAL, -- odometer count
    mfr          CC-ManufacturerData OPTIONAL,
    tds          LRMS.Distance OPTIONAL, -- distance since the beginning of the
trip
    rti          SCH-RouteID OPTIONAL, -- current route id
    rta          CPT-AgencyID OPTIONAL, -- current route agency
    rtd          SCH-RouteDesignator OPTIONAL, -- current route designator
    rtn          SCH-RouteName OPTIONAL, -- current route name
    rtg          CPT-AgencyDesignator OPTIONAL, -- current route agency

designator
  bli           SCH-BlockID OPTIONAL, -- current block id
  bla           CPT-AgencyID OPTIONAL, -- current block agency
  bld           SCH-BlockDesignator OPTIONAL, -- current block designator
  bln           SCH-BlockName OPTIONAL, -- current block name
  blg           CPT-AgencyDesignator OPTIONAL, -- current block agency

designator
  opi           CPT-OperatorID OPTIONAL, -- current operator id
  opa           CPT-AgencyID OPTIONAL, -- current operator agency
  opd           CPT-OperatorDesignator OPTIONAL, -- current operator designator
  ope           CPT-EmployeeID OPTIONAL, -- current operator employee id
  opg           CPT-AgencyDesignator OPTIONAL, -- current operator agency

designator
  rui           SCH-RunID OPTIONAL, -- current run id
  rua           CPT-AgencyID OPTIONAL, -- current run agency
  rud           SCH-RunDesignator OPTIONAL, -- current run designator
  rug           CPT-AgencyDesignator OPTIONAL, -- current run agency designator
  dsc           CC-DestinationMessageID OPTIONAL, -- numeric identifier for the
currently displayed dest sign message
  ec1           CC-EmergencyCode OPTIONAL, -- first currently active emergency
code
  ec2           CC-EmergencyCode OPTIONAL, -- second currently active emergency
code
  ec3           CC-EmergencyCode OPTIONAL, -- third currently active emergency
code
  tpt           CPT-DateTime OPTIONAL, -- last timepoint time
  npi           SCH-TimepointID OPTIONAL, -- next timepoint id
  npa           CPT-AgencyID OPTIONAL, -- next timepoint agency id
  npn           SCH-TimepointName OPTIONAL, -- next timepoint name

```

```
    npd          SCH-TimepointDesignator OPTIONAL, -- -- next timepoint
designator
    npg          CPT-AgencyDesignator OPTIONAL, -- -- next timepoint agency
designator
    npt          CPT-DateTime OPTIONAL, -- -- next timepoint time
    sch          PI-OffSchedule OPTIONAL, -- --seconds off schedule, pos = late
    rtz          SCH-RouteDirectoryName OPTIONAL, -- -- route direction name
...
... -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Publish Short Location](#)

## C.40 Message CcLRSub {Cc 2107}

**Use:**

This message is used to elicit a stream of CcLR messages

**Remarks:**

**ASN1:**

```
CcLRSub ::= SEQUENCE {
    header          CPTSubscriptionHeader
}
```

**The following dialogs use this message:**

[Publish Short Location](#)

## C.41 Message CcLocationReport {Cc 2000}

**Use:**

Provide vehicle location and other information from the vehicle to the control center.

**Remarks:**

1. Note that this message does not replicate the subscription header data frame from the CcLocationReportSub message. This is because the CcLocationReport is expected to be transmitted across narrow band links very frequently, and the message size needs to be kept to a minimum.
2. Inclusion or exclusion of the current trip identifier, and the last timepoint number is a local agency decision.
3. Manufacturer data is for vendor or agency-specific uses.
4. PTVehicleID is intended for use with networks that do not provide an identifier for the source vehicle to the control center with the delivered message, when used with networks that provide message source identification this field can be omitted.
5. Odometer-reading if present is in tenths of miles.
6. The tripDistance field, if present, indicates the distance the PTV has traveled since the beginning of the current trip.

**ASN1:**

```

CcLocationReport ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    request-id         CPT-RequestIdentifier, -- from subscription request
    vehicle             CPTVehicleIden OPTIONAL,
    trainID            CPTTrainIden OPTIONAL,
    status-info         CC-RouteAdherenceState OPTIONAL,
    trip                SCHTripIden OPTIONAL,
    last-timepoint      SCHTimepointIden OPTIONAL,
    time-reported       CPT-DateTime,
    latitude            LRMS.Latitude,
    longitude           LRMS.Longitude,
    direction           LRMS.Angle, -- direction of travel [deg]
    speed               OB-J1587-VelocityVectorSpeed,
    data-quality        SPDataQuality OPTIONAL,
    onboard              OB-J1587-PassengerCounterPatronCount OPTIONAL,
    odometer-reading     CPT-GenericCounter OPTIONAL,
    manufacturer-data   CC-ManufacturerData OPTIONAL,
    tripDistance        LRMS.Distance OPTIONAL,
    routeID             SCHRouteIden OPTIONAL,
    blockID              SCHBlockIden OPTIONAL,
    operatorID          CPTOperatorIden OPTIONAL,
    runID                SCHRUnIden OPTIONAL,
    destSignCode        CC-DestinationMessageID OPTIONAL,
    emergencyCodes      SEQUENCE (SIZE(1..3)) OF CC-EmergencyCode OPTIONAL,
    ...
    -- # LOCAL_CONTENT
}

```

**The following dialogs use this message:**

[Publish PTV-AVL](#)

## C.42 Message CcLocationReportSub {Cc 2001}

**Use:**

Request a vehicle to begin location reporting to the control center.

**Remarks:**

This message is used to elicit the CcLocationReport message.

**ASN1:**

```

CcLocationReportSub ::= SEQUENCE {
    subscriptionHeader   CPTSubscriptionHeader
}

```

**The following dialogs use this message:**

[Publish PTV-AVL](#)

### C.43 Message CcManualAlarm {Cc 2042}

**Use:**

Notify the CAD/AVL system of a manually initiated alarm.

**Remarks:**

**ASN1:**

```
CcManualAlarm ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle            CPTVehicleIden,
    alarm-id          CC-ManualAlarmID,
    latitude           LRMS.Latitude,
    longitude          LRMS.Longitude,
    direction          LRMS.Angle, -- direction of travel [deg]
    speed              OB-J1587-VelocityVectorSpeed,
    data-quality       SPDataQuality OPTIONAL,
    alarm-time         CPT-DateTime
}
```

**The following dialogs use this message:**

[Report Operator Alarm](#)

### C.44 Message CcNotifyDetour {Cc 2026}

**Use:**

Notify the onboard equipment (VLU/MDT) of a detour.

**Remarks:**

**ASN1:**

```
CcNotifyDetour ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    start-time         CPT-DateTime,
    end-time           CPT-DateTime OPTIONAL,
    detourID          CC-DetourID,
    detour-name        CPT-Footnote,
    detour-nameLangs   CPTAdditionalLanguageContents OPTIONAL,
    impacts             SEQUENCE (SIZE(1..100)) OF CCDetourRecord,
    detourType         IM-DetourType OPTIONAL,
    ...    -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Report Detour](#)

## C.45 Message CcNotifyIncomingCall {Cc 2038}

### Use:

Notify a separate MDT that a dispatcher initiated voice call is being set up.

### Remarks:

### ASN1:

```
CcNotifyIncomingCall ::= SEQUENCE {
    call-type          CC-RadioVoiceControl
}
```

The following dialogs use this message:

[Dispatcher Initiated Voice Radio Call](#)

## C.46 Message CcOnboardConfigurationData {Cc 2022}

### Use:

Provide manufacturer-defined configuration data for an onboard computer.

### Remarks:

The software-description field identifies the software component for which configuration information is being provided. If there are 2,000,000 octets or less of configuration information, there will be only one instance of CC-ConfigurationData. If there are more than 2,000,000 octets to convey, additional data elements are included and concatenated to create the configuration data file. This message is NOT intended as an alternative to the use of other TCIP-defined messages. The purpose of this message is to allow a manufacturer to convey configuration information, which is not otherwise defined by the standard in a standardized 'envelope'. For example, a manufacturer may have timer values, queue lengths, table sizes etc that need to be configured, and that would be an appropriate use of this message. Using this message to convey destination sign values, announcements, stoppoint and timepoint data etc. would be inappropriate as TCIP standard messages exist for those purposes.

### ASN1:

```
CcOnboardConfigurationData ::= SEQUENCE {
    file-header          CPTLoadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    software-description OBSWComponent,
    configurationDataSets SEQUENCE (SIZE(1..10)) OF CC-ConfigurationData,
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Load Component Configuration Data](#)

## C.47 Message CcOnboardSoftware {Cc 2020}

### Use:

Convey the executable software for an onboard device.

### Remarks:

If there are 2,000,000 octets or less there will be only one instance of CC-ExecutableSoftware, If there are more than 2,000,000 octets to be conveyed, additional data elements in the sequence are concatenated as required to achieve the necessary executable software file size.

### ASN1:

```
CcOnboardSoftware ::= SEQUENCE {
    file-header          CPTLoadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    software-description OBSWComponent,
    executables         SEQUENCE (SIZE(1..10)) OF CC-ExecutableSoftware
}
```

The following dialogs use this message:

[Load Component Software](#)

## C.48 Message CcOpenWorkOrderAck {Cc 2090}

### Use:

Acknowledge a command to open a workorder, and provide the workorder number.

### Remarks:

### ASN1:

```
CcOpenWorkOrderAck ::= SEQUENCE {
    languages            CPTLanguageList OPTIONAL,
    commandID           CPT-CommandID,
    work-order          CCWorkOrder
}
```

The following dialogs use this message:

[Command Open Workorder](#)

## C.49 Message CcOpenWorkorder {Cc 2089}

### Use:

Command a work order to be created for a repair or maintenance action.

### Remarks:

Work order number should be blank filled.

### ASN1:

```
CcOpenWorkorder ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    commandID         CPT-CommandID,
    work-order        CCWorkOrder,
    ...   -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Command\\_Open\\_Workorder](#)

## C.50 Message CcOperatingData {Cc 2055}

### Use:

Provide PTV operating data from a data store to an authorized subscriber.

### Remarks:

### ASN1:

```
CcOperatingData ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden,
    begin-date             CPT-DateTime,
    end-date               CPT-DateTime,
    operating-datasets    SEQUENCE (SIZE(1..50000)) OF CCOperatingRecord,
    ...   -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Publish\\_Daily\\_Operating\\_Data](#)

## C.51 Message CcOperatingDataSub {Cc 2056}

### Use:

Query a data store for operating data previously unloaded from PTV(s).

### Remarks:

This message is used to elicit the CcOperatingData message.

### ASN1:

```
CcOperatingDataSub ::= SEQUENCE {
    subscription-info      CPTSSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden,
    begin-date             CPT-DateTime,
    end-date               CPT-DateTime
}
```

### The following dialogs use this message:

[Publish Daily Operating Data](#)

## C.52 Message CcOperatorCallRequest {Cc 2034}

### Use:

Notify the CAD/AVL system that a vehicle operator has requested a voice call.

### Remarks:

### ASN1:

```
CcOperatorCallRequest ::= SEQUENCE {
    languages              CPTLanguageList OPTIONAL,
    vehicle                CPTVehicleIden,
    call-type               CC-ResponseRequestType
}
```

### The following dialogs use this message:

[Operator Initiated Voice Call](#)

## C.53 Message CcOperatorMessage {Cc 2014}

### Use:

Provide a canned or text message from the vehicle operator to the dispatch center.

### Remarks:

Either a text message or a canned message can be included. If a canned message is used, takes can be used to fill in the blanks to create parameterized messages. The "LoadCannedMessagesText" and "LoadCannedMessageTakes" dialogs are used to store the canned messages and takelists into the VLU/MDT.

### ASN1:

```
CcOperatorMessage ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    time                CPT-DateTime,
    text-msg            CPT-Footnote OPTIONAL,
    text-msgLangs       CPTAdditionalLanguageContents OPTIONAL,
    cannedMsg          CCCannedMsgIden OPTIONAL,
    takes               SEQUENCE (SIZE(1..6)) OF CC-CannedMsgTakeID OPTIONAL
}
```

The following dialogs use this message:

[Report Operator Message](#)

## C.54 Message CcOperatorMessageAck {Cc 2015}

### Use:

Provide an acknowledgement to a vehicle operator initiated canned or text message.

### Remarks:

The error field indicates that the message could not be delivered due to an error (e.g. unknown canned msg). The error field is always TRUE if present.

### ASN1:

```
CcOperatorMessageAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    time                CPT-DateTime,
    error               CPT-Boolean OPTIONAL
}
```

The following dialogs use this message:

[Report Operator Message](#)

## C.55 Message CcOperatorSignOff {Cc 2007}

### Use:

Notify the control center that an operator signed off from a vehicle.

### Remarks:

### ASN1:

```
CcOperatorSignOff ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    logoff-Info         CCLogOffOperator,
    block               SCHBlockIden OPTIONAL, -- current or most recent block
    run                 SCHRRunIden OPTIONAL, -- current or most recent run
    ...
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Operator Sign-Off](#)

## C.56 Message CcOperatorSignOffAck {Cc 2006}

### Use:

Acknowledge receipt of an operator sign off message from a vehicle.

### Remarks:

The contact-dispatch field is provided to support an option to trigger a contact dispatch response accompanying the acknowledgement. Agencies may elect whether to use this feature.

### ASN1:

```
CcOperatorSignOffAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    operator            CPTOperatorIden,
    contact-dispatch   CPT-Boolean OPTIONAL
}
```

The following dialogs use this message:

[Report Operator Sign-Off](#)

## C.57 Message CcOperatorSignOn {Cc 2004}

### Use:

Notify the control center that an operator has signed onto a vehicle.

### Remarks:

#### ASN1:

```
CcOperatorSignOn ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    logon-info          CCLogOnOperator,
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Operator Sign-On](#)

## C.58 Message CcOperatorSignOnAck {Cc 2005}

### Use:

Acknowledge receipt of an operator sign on message from a vehicle.

### Remarks:

If the login-error field is present and True it is intended to trigger vendor/locally defined recovery procedures from an invalid login.

#### ASN1:

```
CcOperatorSignOnAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    operator            CPTOperatorIden,
    logon-error         CPT-Boolean OPTIONAL
}
```

The following dialogs use this message:

[Report Operator Sign-On](#)

## C.59 Message CcPTVAdherence {Cc 2033}

### Use:

Provide route/schedule adherence status information

### Remarks:

1. The reason field provides the reason the message was generated. In the case of an initial report, when the vehicle has not yet started its run, the reason should be initialNoException.
2. If the vehicle is on a run and not on time as of the last timepoint or is recovering to on time status, the timepoint and actualTime fields are included to specify the vehicle's time at the most recently passed timepoint.
3. If the vehicle is off route, the lastOnRoute field is included to specify the location where the vehicle left its route.

### ASN1:

```
CcPTVAdherence ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPLanguageList OPTIONAL,
    reason                     CC-AdherenceMsgType,
    timepoint                  SCHTimepointIden OPTIONAL,
    actualTime                 SCH-Time OPTIONAL,
    lastOnRoute                LRMS.GeoLocation OPTIONAL,
    currentLocation             LRMS.GeoLocation,
    currentTime                CPT-DateTime,
    scheduleDeviation          CPT-Duration
}
```

The following dialogs use this message:

[Publish PTV Adherence](#)

## C.60 Message CcPTVAdherenceSub {Cc 2032}

### Use:

Request a subscription to vehicle route/schedule adherence monitoring.

### Remarks:

1. The custom-route-params field is present only if the subscriber wants to override the route adherence parameters previously provided in the "Load PTV Alarm Limits" dialog.
2. The custom-sched-params field is present only if the subscriber wants to override the schedule adherence parameters previously provided in the "Load PTV Alarm Limits" dialog. This message is used to elicit the CcPTVAdherence message.

### ASN1:

```
CcPTVAdherenceSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPLanguageList OPTIONAL,
    custom-route-params        CCActivateRouteAdherence OPTIONAL,
    custom-sched-params        CCActivateScheduleAdherence OPTIONAL
}
```

The following dialogs use this message:

[Publish PTV Adherence](#)**C.61 Message CcPTVAlarmLimits {Cc 2024}****Use:**

Provide alarm thresholds and related configuration information from the fixed component (data repository, CAD/AVL system, or laptop computer), to the onboard component (Vehicle Logic Unit or Mobile Data Terminal).

**Remarks:**

1. This message establishes default alarm thresholds for onboard parameters, however an individual alarm subscriber can customize these thresholds using the CcPTVehicleAlarmSub message.
2. Parameters which are not included in the thresholds field, maintain their existing threshold values. Thus the fixed end has the option to leave the parameter thresholds unchanged by omitting this field.
3. Parameter values are logged for later unloading, via the "Unload PTVPerformance Data" dialog, at rates specified in the parameterLogRates field. Parameters not listed in this field are not logged onboard for later unloads.
4. The offRouteLogRates field governs the off route determination, and off route tracking data collection rates for logging purposes. Logged data is provided to the fixed component via the "Unload PTVPerformanceData" dialog.
5. The offRouteReportRates field governs route adherence determination and reporting for real-time use in reporting to the dispatcher via the "Publish PTV-AVL" dialog.
6. The offScheduleReportRates field governs schedule adherence and reporting for real time use in reporting to the dispatcher via the "Publish PTV-AVL" dialog.

**ASN1:**

```
CcPTVAlarmLimits ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    thresholds          SEQUENCE (SIZE(1..100)) OF CCParameterThreshold OPTIONAL,
    parameterLogRates   CCParameterRateConfiguration OPTIONAL,
    offRouteLogRates    CCActivateRouteAdherence OPTIONAL,
    offRouteReportRates CCActivateRouteAdherence OPTIONAL,
    offScheduleReportRates CCActivateScheduleAdherence OPTIONAL,
    manualAlarms        SEQUENCE (SIZE(1..100)) OF CCManualAlarmDefinition OPTIONAL,
    enableCode          CPT-GenericCounter OPTIONAL,
    disableCode         CPT-GenericCounter OPTIONAL
}
```

**The following dialogs use this message:**[Load PTV Alarm Limits](#)

## C.62 Message CcPTVInspection {Cc 2067}

### Use:

Report that a PTV assigned for service has been inspected along with the results. May be used at the beginning or end of a run.

### Remarks:

The ready field indicates whether PTV is service ready.

### ASN1:

```
CcPTVInspection ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    vehicle            CPTVehicleIden,
    employee           CPTEmployeeIden, -- who performed PTV inspection
    time               CPT-DateTime, -- when employee reported inspection
    ready              CPT-Boolean,
    issues             SEQUENCE (SIZE(1..20)) OF CC-PTVInspectionFault OPTIONAL,
    ...   -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Report Vehicle Inspection](#)

## C.63 Message CcPTVInspectionAck {Cc 2068}

### Use:

Acknowledge a CcPTVInspection message.

### Remarks:

### ASN1:

```
CcPTVInspectionAck ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    vehicle            CPTVehicleIden,
    employee           CPTEmployeeIden, -- who inspected the PTV
    time               CPT-DateTime, -- when employee reported inspection
    ready              CPT-Boolean,
    issues             SEQUENCE (SIZE(1..20)) OF CC-PTVInspectionFault OPTIONAL,
    time-acknowledged CPT-DateTime,
    ack-employeeID     CPT-EmployeeID
}
```

**The following dialogs use this message:**

[Report Vehicle Inspection](#)

## C.64 Message CcPTVPerformanceData {Cc 2029}

### Use:

Provide vehicle performance information from an onboard component (usually the Vehicle Logic Unit or Mobile Data Terminal) to a fixed component which may be the CAD/AVL system, or a data repository.

### Remarks:

1. The fileHeader field defines the applicable interval for which data is provided.
2. The operators field records any operator sign on or sign off events occurring during the interval, and is omitted if no such events occurred.
3. The engine-cycles field records any engine stop or start events occurring during the interval, and is omitted if no such events occurred.
4. The vehicle-parameters field records any parameters specified for batch reporting in the LoadPTVAlarmLimits dialog. The field is omitted if there are no parameters to report.
5. The work-history field describes the work done by the vehicle. If the vehicle did no work the field is omitted. This field has an entry for each block of work performed.
6. The conn-prot-reqs, and wheelchair reqs fields contain logs of connection protection and wheelchair request events.

### ASN1:

```
CcPTVPerformanceData ::= SEQUENCE {
    fileHeader           CPTUnloadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    begin-odometer       CPT-GenericCounter OPTIONAL,
    end-odometer         CPT-GenericCounter OPTIONAL,
    operators             SEQUENCE (SIZE(1..100)) OF CCSignOnOff OPTIONAL,
    engine-cycles        SEQUENCE (SIZE(1..100)) OF CCEngineStartStop OPTIONAL,
    vehicle-parameters   SEQUENCE (SIZE(1..10000)) OF OBParameterDumpEntry OPTIONAL,
    work-records          SEQUENCE (SIZE(1..10000)) OF CCBLOCKWorkRecord OPTIONAL,
    conn-prot-reqs        SEQUENCE (SIZE(1..1000)) OF CCConnProtLogEntry OPTIONAL,
    wheelchair-reqs      SEQUENCE (SIZE(1..1000)) OF CCWheelchairLogEntry OPTIONAL,
    service-events        SEQUENCE (SIZE(1..100)) OF CCEventRecord OPTIONAL,
    consistChanges        SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

### The following dialogs use this message:

[Unload\\_PTV\\_Performance\\_Data](#)

## C.65 Message CcPTVTripResponse {Cc 2003}

### Use:

Provide an acknowledgement from the PTV to the Control Center of a CcPTVTrips message. This message may indicate that the trips were or were not accepted successfully.

### Remarks:

1. Error code 058-message reference invalid should be used if the CcPTVTrips message refers to a pattern version or a timepoint version which is not on hand.

### ASN1:

```
CcPTVTripResponse ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    command-ID                CPT-CommandID, -- copy from CCPTVTrips message
    vehicle                   CPTVehicleIden,
    command-Accepted          CPT-Boolean, -- true if CCPTVTrips message was valid
    error-Code                CPT-ErrorCode OPTIONAL
}
```

**The following dialogs use this message:**

[Command Load PTV Trips](#)

## C.66 Message CcPTVTrips {Cc 2002}

### Use:

Provide trip information to a single PTV, usually over a narrowband link.

### Remarks:

1. This message is not intended to convey multiple days of assignment information, however it does support assignments that start before midnight or end after midnight. 2. If a PTV is to service multiple routes, multiple instances of this message are required.. For rail service, the consistChanges field provides a list of the consist changes for the reporting period.

### ASN1:

```
CcPTVTrips ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    command-ID                CPT-CommandID,
    vehicle                   CPTVehicleIden,
    pullout-Time              SCH-Time OPTIONAL,
    pullin-Time               SCH-Time OPTIONAL,
    route                     SCHRouteIden,
    route-Direction           SCH-RouteDirectoryName,
    route-DirectionLangs     CPTAdditionalLanguageContents OPTIONAL,
    date                      CPT-Date,
    trips                     SEQUENCE (SIZE(1..30)) OF CCPTVTripData,
    consistChanges             SEQUENCE (SIZE(1..30)) OF SCHConsistChangeEvent OPTIONAL
}
```

**The following dialogs use this message:**

[Command Load PTV Trips](#)

## C.67 Message CcPTVehicleAlarm {Cc 2018}

**Use:**

Notify a subscriber of any vehicle alarms in effect when an alarm subscription is initiated, and of any subsequent alarms or alarm recoveries.

**Remarks:**

The only case where this message would be sent with the alarms field absent, is in response to a CcPTVehicleAlarmSub message when no alarms are active.

**ASN1:**

```
CcPTVehicleAlarm ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    trainID              CPTTrainIden OPTIONAL,
    alarms                SEQUENCE (SIZE(1..20)) OF CCAlarm OPTIONAL,
    status-reports        SEQUENCE (SIZE(1..20)) OF OBHealthStatusRecord OPTIONAL
}
```

**The following dialogs use this message:**

[Publish PTV Health Alarms](#)

## C.68 Message CcPTVehicleAlarmSub {Cc 2017}

**Use:**

Request a subscription to vehicle health alarms.

**Remarks:**

The custom-limits field is only used if the subscriber wants to obtain alarms using thresholds other than the defaults specified using the dialog "Load PTV Alarm Limits". This message is used to elicit the CcPTVehicleAlarm message.

**ASN1:**

```
CcPTVehicleAlarmSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    custom-limits         SEQUENCE (SIZE(1..100)) OF CCParameterThreshold OPTIONAL
}
```

**The following dialogs use this message:**

[Publish PTV Health Alarms](#)

## C.69 Message CcPTVehicleParameter {Cc 2013}

### Use:

Provide vehicle parameter information to a subscriber.

### Remarks:

### ASN1:

```
CcPTVehicleParameter ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    rate                       CPT-Duration,
    time                       CPT-DateTime,
    parameters                 SEQUENCE (SIZE(1..100)) OF OBParameterDumpEntry
}
```

### The following dialogs use this message:

[Publish PTV Parameters](#)

## C.70 Message CcPTVehicleParameterSub {Cc 2012}

### Use:

Request a subscription to specified vehicle parameters.

### Remarks:

Recommend that reporting rates less than 60 seconds not be used. This message is used to elicit the CcPTVehicleParameter message.

### ASN1:

```
CcPTVehicleParameterSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    rate                      CPT-Duration,
    parameters                SEQUENCE (SIZE(1..100)) OF OBParameterID
}
```

### The following dialogs use this message:

[Publish PTV Parameters](#)

## C.71 Message CcPassengerAlarm {Cc 2044}

### Use:

Report to the CAD/AVL System that a passenger on a PTV activated an alarm.

### Remarks:

### ASN1:

```
CcPassengerAlarm ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden,
    latitude                   LRMS.Latitude,
    longitude                  LRMS.Longitude,
    direction                  LRMS.Angle, -- direction of travel [deg]
    speed                      OB-J1587-VelocityVectorSpeed,
    data-quality                SPDataQuality OPTIONAL,
    time                       CPT-DateTime,
    ...  -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Passenger Alarm](#)

## C.72 Message CcPassengerAlarmAck {Cc 2045}

### Use:

Acknowledge a passenger alarm.

### Remarks:

### ASN1:

```
CcPassengerAlarmAck ::= SEQUENCE {
    alarm-time                 CPT-DateTime
}
```

The following dialogs use this message:

[Report Passenger Alarm](#)

## C.73 Message CcPollParameters {Cc 2047}

### Use:

Provide polling parameters to the TCIP Polling Controller from the CAD/AVL System.

### Remarks:

Normally the global configuration information is sent initially when the subscription is established and not repeated.

### ASN1:

```

CcPollParameters ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader, -- global configuration info for
controller
    languages                 CPTLanguageList OPTIONAL,
    nAgencyDataMaxTries       CPT-GenericCounter OPTIONAL,
    nAllocRetry                CPT-GenericCounter OPTIONAL,
    nBitRate                  CPT-GenericCounter OPTIONAL,
    nBitSync                  CPT-GenericCounter OPTIONAL,
    nCtlPTVQ                  CPT-GenericCounter OPTIONAL,
    nMaxBadPoll                CPT-GenericCounter OPTIONAL,
    nMaxMsgLengthToPTV        CPT-GenericCounter OPTIONAL,
    nMaxMsgLengthFromPTV      CPT-GenericCounter OPTIONAL,
    nMsgMaxTries                CPT-GenericCounter OPTIONAL,
    tRadioTime                 CPT-MillisecondDuration OPTIONAL,
    tFastPollInterval          CPT-Duration OPTIONAL,
    tPriorityPoll              CPT-Duration OPTIONAL,
    tSessionOnly                CPT-Duration OPTIONAL,
    tSessionPollStart          CPT-Duration OPTIONAL,
    tStartup                   CPT-Duration OPTIONAL,
    tSessionPoll                CPT-Duration OPTIONAL,
    init-polling-groups        SEQUENCE (SIZE(1..255)) OF CCPollingGroupInit OPTIONAL,
    add-group-PTVs             SEQUENCE (SIZE(1..200)) OF CCPollingGroupUpdate OPTIONAL, -- PTV
    SPecific parameters
    ptv-poll-datasets          SEQUENCE (SIZE(1..3000)) OF CCPollControl OPTIONAL
}

```

### The following dialogs use this message:

[Publish PTV-Polled Parameters](#)

## C.74 Message CcPollParametersSub {Cc 2046}

### Use:

Subscribe to PTV Polling parameters from the CAD/AVL System.

### Remarks:

This message is used to elicit the CcPollParameters message.

### ASN1:

```
CcPollParametersSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader
}
```

### The following dialogs use this message:

[Publish PTV-Pollled Parameters](#)

## C.75 Message CcPollResults {Cc 2119}

### Use:

Convey the operational information obtained by polling a PTV to the CAD/AVL System from the TCIP Polling Controller.

### Remarks:

### ASN1:

```
CcPollResults ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle            CPTVehicleIden,
    date-time          CPT-DateTime,
    ptv-info           CCPollResponseContents
}
```

### The following dialogs use this message:

[Notify PTV Polling Result](#)

## C.76 Message CcRemotePTVDisable {Cc 2048}

### Use:

Command a PTV to be disabled as a result of a security event or other incident.

### Remarks:

### ASN1:

```
CcRemotePTVDisable ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    commandID          CPT-CommandID,
    vehicle             CPTVehicleIden,
    time                CPT-DateTime,
    disable-code        CPT-GenericCounter,
    verify-command      CPT-Boolean -- always true
}
```

The following dialogs use this message:

[Command Remote PTV Disable](#)

## C.77 Message CcRemotePTVDisableAck {Cc 2049}

### Use:

Notify the controller of the result of a PTV disable command.

### Remarks:

### ASN1:

```
CcRemotePTVDisableAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    commandID          CPT-CommandID,
    vehicle             CPTVehicleIden,
    time                CPT-DateTime,
    vehicleDisabled     CPT-Boolean
}
```

The following dialogs use this message:

[Command Remote PTV Disable](#)

## C.78 Message CcRemotePTVEnable {Cc 2050}

### Use:

Command PTV to be reenabled after a previous disable command.

### Remarks:

### ASN1:

```
CcRemotePTVEnable ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    commandID                 CPT-CommandID,
    vehicle                    CPTVehicleIden,
    time                      CPT-DateTime,
    enable-code                CPT-GenericCounter,
    verify-command             CPT-Boolean -- always true
}
```

The following dialogs use this message:

[Command Remote PTV Enable](#)

## C.79 Message CcRemotePTVEnableAck {Cc 2051}

### Use:

Notify the fixed controller and PTV-OPR of the result of a PTV enable command.

### Remarks:

### ASN1:

```
CcRemotePTVEnableAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    commandID                 CPT-CommandID,
    vehicle                    CPTVehicleIden,
    time                      CPT-DateTime,
    vehicleEnabled             CPT-Boolean
}
```

The following dialogs use this message:

[Command Remote PTV Enable](#)

## C.80 Message CcReportPullIns {Cc 2059}

### Use:

Notify a business system that one or more PTVs pulled in after service operations.

### Remarks:

### ASN1:

```
CcReportPullIns ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    report-employee    CPTEmployeeIden, -- who made the report
    report-time         CPT-DateTime, -- when the report was made
    pull-ins            SEQUENCE (SIZE(1..100)) OF CCPullInReport
}
```

The following dialogs use this message:

[Report Pull Ins](#)

## C.81 Message CcReportPullInsAck {Cc 2060}

### Use:

Acknowledge reported pull ins.

### Remarks:

### ASN1:

```
CcReportPullInsAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    report-employee    CPTEmployeeIden,
    report-time         CPT-DateTime,
    ack-employee        CPTEmployeeIden,
    ack-time            CPT-DateTime
}
```

The following dialogs use this message:

[Report Pull Ins](#)

## C.82 Message CcReportPullOuts {Cc 2061}

### Use:

Notify a business system that one or more PTVs pulled out for service operations.

### Remarks:

### ASN1:

```
CcReportPullOuts ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    report-employee            CPTEmployeeIden,
    report-time                CPT-DateTime,
    pull-outs                 SEQUENCE (SIZE(1..100)) OF CCPullOutReport
}
```

The following dialogs use this message:

[Report Pull Outs](#)

## C.83 Message CcReportPullOutsAck {Cc 2062}

### Use:

Acknowledge reported pull outs.

### Remarks:

### ASN1:

```
CcReportPullOutsAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    report-employee            CPTEmployeeIden,
    report-time                CPT-DateTime,
    ack-employee               CPTEmployeeIden,
    ack-time                   CPT-DateTime
}
```

The following dialogs use this message:

[Report Pull Outs](#)

## C.84 Message CcReportServiceEvent {Cc 2100}

### Use:

Report a service event

### Remarks:

### ASN1:

```
CcReportServiceEvent ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    event-record                CCEventRecord,
    ack-required                CPT-Boolean,
    ...  -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Service Event](#)

## C.85 Message CcReportServiceEventAck {Cc 2101}

### Use:

Acknowledge a service event.

### Remarks:

### ASN1:

```
CcReportServiceEventAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    acked-event                 CCEventRecord
}
```

The following dialogs use this message:

[Report Service Event](#)

## C.86 Message CcReportTrainInitialization {Cc 2114}

### Use:

Report that a train is initialized and ready to proceed from the train to a configured central location.

### Remarks:

The initialized train may be a deadhead, revenue train, or a work train.

### ASN1:

```
CcReportTrainInitialization ::= SEQUENCE {
    trainID          CPTTrainIden,
    time             CPT-DateTime,
    reportID         CPT-GenericCounter,   --- used to associate the ack with the
report
    operator          CPTOperatorIden OPTIONAL,
    crewMembers       SEQUENCE (SIZE(1..8)) OF CPTEmployeeIden OPTIONAL,
    consistCars       SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    location          LRMS.GeoLocation OPTIONAL
}
```

The following dialogs use this message:

[Report Train Initialization](#)

## C.87 Message CcReportTrainInitializationAck {Cc 2116}

### Use:

Acknowledge a report that a train is initialized and ready to proceed from the train to a configured central location.

### Remarks:

### ASN1:

```
CcReportTrainInitializationAck ::= SEQUENCE {
    trainID          CPTTrainIden
}
```

The following dialogs use this message:

[Report Train Initialization](#)

## C.88 Message CcReportTrainPassage {Cc 2112}

### Use:

This message is used by a fixed detector to report the passage of a train, and possibly its consist, and associated defects.

### Remarks:

### ASN1:

```
CcReportTrainPassage ::= SEQUENCE {
    timeBy                               CPT-DateTime, -- -- time the train's passage completed/time of
the report
    detectorID                            CCTrainDetectorIden,
    reportID                             CPT-GenericCounter, -- -- a number used to correlate the ack
with this report
    trainID                               CPTTrainIden OPTIONAL,
    consistCars                           SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    carCount                             CPT-GenericCounter OPTIONAL,
    axleCount                            CPT-GenericCounter OPTIONAL,
    defects                               SEQUENCE (SIZE(1..100)) OF CCTrainDefect OPTIONAL,
    timeAt                                CPT-DateTime OPTIONAL -- -- time the train arrived at the
detector
}
```

The following dialogs use this message:

[Report Train Passage](#)

## C.89 Message CcReportTrainPassageAck {Cc 2113}

### Use:

Acknowledge a report from a train detector.

### Remarks:

### ASN1:

```
CcReportTrainPassageAck ::= SEQUENCE {
    trainID                               CPTTrainIden,
    reportID                             CPT-GenericCounter -- -- used to associate the ack with the
report
}
```

The following dialogs use this message:

[Report Train Passage](#)

## C.90 Message CcReportTrainTermination {Cc 2115}

### Use:

Report that a train is terminated from the train to a configured central location.

### Remarks:

The terminated train may be a deadhead, revenue train, or a work train.

### ASN1:

```
CcReportTrainTermination ::= SEQUENCE {
    trainID          CPTTrainIden,
    time             CPT-DateTime,
    reportID         CPT-GenericCounter,   -- -- used to associate the ack with the
report
    operator          CPTOperatorIden OPTIONAL,
    crewMembers       SEQUENCE (SIZE(1..8)) OF CPTEmployeeIden OPTIONAL,
    consistcars      SEQUENCE (SIZE(1..40)) OF CPTVehicleIden OPTIONAL,
    location          LRMS.GeoLocation OPTIONAL
}
```

The following dialogs use this message:

[Report Train Termination](#)

## C.91 Message CcReportTrainTerminationAck {Cc 2117}

### Use:

Acknowledge a report that a train is terminated from the train to a configured central location.

### Remarks:

### ASN1:

```
CcReportTrainTerminationAck ::= SEQUENCE {
    trainID          CPTTrainIden,
    reportID         CPT-GenericCounter   -- -- used to associate the ack with the
report
}
```

The following dialogs use this message:

[Report Train Termination](#)

## C.92 Message CcTravelerAlarm {Cc 2053}

### Use:

Report that a traveler in a PTSF activated an alarm.

### Remarks:

#### ASN1:

```
CcTravelerAlarm ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    stoppoint          CPTStoppointIden,
    time               CPT-DateTime,
    ...   -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Traveler Alarm](#)

## C.93 Message CcTravelerAlarmAck {Cc 2052}

### Use:

Acknowledge a traveler alarm.

### Remarks:

#### ASN1:

```
CcTravelerAlarmAck ::= SEQUENCE {
    alarm-time        CPT-DateTime
}
```

The following dialogs use this message:

[Report Traveler Alarm](#)

## C.94 Message CcTravelerRequestLog {Cc 2087}

### Use:

Provide a log of traveler request events.

### Remarks:

### ASN1:

```
CcTravelerRequestLog ::= SEQUENCE {
    header                  CPTSsubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    begin-time              CPT-DatTime,
    end-time                CPT-DatTime,
    specific-routes         SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    specific-vehicles       SEQUENCE (SIZE(1..10000)) OF CPTVehicleIden OPTIONAL,
    specific-stops          SEQUENCE (SIZE(1..10000)) OF CPTStoppointIden OPTIONAL,
    conn-prot-entries       SEQUENCE (SIZE(1..30000)) OF CCConnProtLogEntry OPTIONAL,
    wheelchair-entries     SEQUENCE (SIZE(1..10000)) OF CCWheelchairLogEntry OPTIONAL
}
```

### The following dialogs use this message:

[Publish Traveler Request Log](#)

## C.95 Message CcTravelerRequestLogPush {Cc 2088}

### Use:

Provide a log of traveler request events from a source to a destination.

### Remarks:

### ASN1:

```
CcTravelerRequestLogPush ::= SEQUENCE {
    header                 CPTPushHeader,
    languages              CPTLanguageList OPTIONAL,
    conn-prot-entries      SEQUENCE (SIZE(1..30000)) OF CCConnProtLogEntry OPTIONAL,
    wheelchair-entries    SEQUENCE (SIZE(1..10000)) OF CCWheelchairLogEntry OPTIONAL
}
```

### The following dialogs use this message:

[Push Traveler Request Log](#)

## C.96 Message CcTravelerRequestLogSub {Cc 2086}

### Use:

Request a log of traveler request events.

### Remarks:

This message is used to elicit the CcTravelerRequestLog message.

### ASN1:

```
CcTravelerRequestLogSub ::= SEQUENCE {
    header                  CPTSSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    being-time              CPT-DateTime,
    end-time                CPT-DateTime,
    specific-routes         SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    specific-vehicles       SEQUENCE (SIZE(1..10000)) OF CPTVehicleIden OPTIONAL,
    specific-stops          SEQUENCE (SIZE(1..10000)) OF CPTStoppointIden OPTIONAL
}
```

### The following dialogs use this message:

[Publish Traveler Request Log](#)

## C.97 Message CcTriggerCannedAnnouncement {Cc 2093}

### Use:

Allows a dispatcher or driver to trigger an announcement on a PTV.

### Remarks:

### ASN1:

```
CcTriggerCannedAnnouncement ::= SEQUENCE {
    languages               CPTLanguageList OPTIONAL,
    commandID              CPT-CommandID,
    time                   CPT-DateTime,
    announcementID         CCAnnouncementIden,
    repeats                CPT-GenericCounter,
    repeat-interval        CPT-Duration OPTIONAL,
    ack-required           CPT-Boolean
}
```

### The following dialogs use this message:

[Command Make Canned Announcement](#)

## C.98 Message CcTriggerCannedAnnouncementAck {Cc 2094}

### Use:

Acknowledges a command to trigger a canned announcement. This message is only used if the CcTriggerCannedAnnouncement message had the ack-required field set to TRUE.

### Remarks:

The command accepted field should be true unless the annunciation equipment is unable to play the announcement (e.g. failure, or missing announcement definition).

### ASN1:

```
CcTriggerCannedAnnouncementAck ::= SEQUENCE {
    commandID          CPT-CommandID,
    time-received       CPT-DateTime,
    command-accepted   CPT-Boolean
}
```

The following dialogs use this message:

[Command Make Canned Announcement](#)

## C.99 Message CcUnloadImages {Cc 2054}

### Use:

Move video camera images from a PTV or PTSF to a data store.

### Remarks:

### ASN1:

```
CcUnloadImages ::= SEQUENCE {
    fileHeader          CPTUnloadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    video-datasets     SEQUENCE (SIZE(1..1000)) OF CCVideoRecord
}
```

The following dialogs use this message:

[Unload Video Images](#)

## C.100 Message CcVehicleShutdownAck {Cc 2009}

### Use:

Acknowledge the CcVehicleShutdownReport message.

### Remarks:

### ASN1:

```
CcVehicleShutdownAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    display-message     OB-TextMessage OPTIONAL,
    display-messageLangs CPTAdditionalLanguageContents OPTIONAL
}
```

The following dialogs use this message:

[Report Vehicle Shut Down](#)

## C.101 Message CcVehicleShutdownReport {Cc 2008}

### Use:

Provide a notification from the Vehicle Logic Unit or Mobile Data Terminal to the Computer Aided Dispatch system that the vehicle's engine has been shutdown.

### Remarks:

The open-alarms field is intended as an optional mechanism to provide the current values for vehicle parameters that remained outside of their allowed range when the vehicle was shut off.

### ASN1:

```
CcVehicleShutdownReport ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    date-time           CPT-DateTime,
    open-alarms         SEQUENCE (SIZE(1..100)) OF OBParameterDumpEntry OPTIONAL,
    ... -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Vehicle Shut Down](#)

## C.102 Message CcVehicleStartupAck {Cc 2010}

### Use:

Acknowledge the CcVehicleStartupReport message

### Remarks:

The display-message field optionally conveys a text message to be displayed on the operator's display.

### ASN1:

```
CcVehicleStartupAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    display-message     OB-TextMessage OPTIONAL,
    display-messageLangs CPTAdditionalLanguageContents OPTIONAL
}
```

### The following dialogs use this message:

[Report Vehicle Startup](#)

## C.103 Message CcVehicleStartupReport {Cc 2011}

### Use:

Provide a notification from the Vehicle Logic Unit or Mobile Data Terminal to the Computer Aided Dispatch system that the vehicle's engine or the computer(s) on the PTV have been started.

### Remarks:

If the computers are started, send the report, and subsequently the engine start is detected, a second report is generated.

### ASN1:

```
CcVehicleStartupReport ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    date-time           CPT-DateTime,
    open-alarms         SEQUENCE (SIZE(1..100)) OF OBParameterDumpEntry OPTIONAL,
    engine-running      CPT-Boolean,
    ... -- # LOCAL_CONTENT
}
```

### The following dialogs use this message:

[Report Vehicle Startup](#)

## C.104 Message CcVideoFeed {Cc 2111}

### Use:

Provide a frame of a video feed from one or more video cameras.

### Remarks:

### ASN1:

```
CcVideoFeed ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    cameras               SEQUENCE (SIZE(1..5)) OF CPT-GenericCounter OPTIONAL,
    begin                 CPT-DateTime OPTIONAL, -- default to immediate
    format                PI-GraphicFormat,
    images                SEQUENCE (SIZE(1..5)) OF PI-BinaryVideoData
}
```

The following dialogs use this message:

[Publish Video Feed](#)

## C.105 Message CcVideoFeedSub {Cc 2057}

### Use:

Request one or more video feeds from a security camera.

### Remarks:

The cameras field is optional if the publisher has a single camera. This message is used to elicit the CcVideoFeed message.

### ASN1:

```
CcVideoFeedSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    cameras               SEQUENCE (SIZE(1..5)) OF CPT-GenericCounter OPTIONAL,
    begin                 CPT-DateTime OPTIONAL -- default to immediate
}
```

The following dialogs use this message:

[Publish Video Feed](#)

## C.106 Message CcVideoImages {Cc 2118}

### Use:

Provide video images from a data store to an authorized subscriber.

### Remarks:

### ASN1:

```
CcVideoImages ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    stoppoints             SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    begin-datetime         CPT-DateTime,
    end-datetime          CPT-DateTime,
    video-datasets        SEQUENCE (SIZE(1..10000)) OF CCVideoRecord
}
```

### The following dialogs use this message:

[Publish Video Images](#)

## C.107 Message CcVideoImagesSub {Cc 2058}

### Use:

Query for video images from a PTV or PTSF previously unloaded to a data store.

### Remarks:

This message is used to elicit the CcVideoImages message.

### ASN1:

```
CcVideoImagesSub ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    stoppoints             SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    begin-datetime         CPT-DateTime,
    end-datetime          CPT-DateTime
}
```

### The following dialogs use this message:

[Publish Video Images](#)

## C.108 Message CcWheelchairAck {Cc 2084}

### Use:

Acknowledge an instruction to pick up a wheelchair passenger at a specified stoppoint.

### Remarks:

### ASN1:

```
CcWheelchairAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    requester-id               CC-TravelerRequestID, -- assigned by requester entity
    requester-time              CPT-DateTime, -- time requested
    requester-vehicle           CPTVehicleIden OPTIONAL,
    pickupStoppoint             CPTStoppointIden OPTIONAL, -- if requester is at a stoppoint
    pickupLocation              LRMS.GeoLocation OPTIONAL, -- if requester not at stoppoint
    requester-route              SCHRouteIden,
    requester-route-direction    LRMS.Direction OPTIONAL,
    to-stoppoint                CPTStoppointIden,
    requester-eta-at-stoppoint  CPT-DateTime OPTIONAL,
    central-id                  CC-TravelerRequestID,
    wait-until                 CPT-DateTime,
    pickup-PTV                  CPTVehicleIden
}
```

The following dialogs use this message:

[Request Wheelchair Pickup](#)

## C.109 Message CcWheelchairAppr {Cc 2083}

### Use:

Notify a requester that a wheelchair pickup request was approved..

### Remarks:

The wait-until time may be earlier in this message than in the CcWheelchairPickup message to avoid customer complaints due to small time discrepancies.

### ASN1:

```
CcWheelchairAppr ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    requester-id               CC-TravelerRequestID, -- assigned by requester entity
    requester-time              CPT-DateTime, -- time requested
    requester-vehicle           CPTVehicleIden OPTIONAL,
    pickupStoppoint             CPTStoppointIden OPTIONAL, -- if requester is at a stoppoint
    pickupLocation              LRMS.GeoLocation OPTIONAL, -- if requester not at stoppoint
    requester-route              SCHRouteIden,
    requester-route-direction    LRMS.Direction OPTIONAL,
    to-stoppoint                CPTStoppointIden,
    requester-eta-at-stoppoint  CPT-DateTime OPTIONAL,
```

```
central-id          CC-TravelerRequestID,  
wait-until        CPT-DateTime,  
pickup-PTV         CPTVehicleIden  
}
```

The following dialogs use this message:

[Request Wheelchair Pickup](#)

## C.110 Message CcWheelchairDeny {Cc 2085}

Use:

Deny a requested wheelchair pickup.

Remarks:

ASN1:

```
CcWheelchairDeny ::= SEQUENCE {  
    languages           CPTLanguageList OPTIONAL,  
    requester-id       CC-TravelerRequestID, -- assigned by requester entity  
    requester-time     CPT-DateTime, -- time requested  
    requester-vehicle   CPTVehicleIden OPTIONAL,  
    pickupStoppoint    CPTStoppointIden OPTIONAL, -- if requester is at a stoppoint  
    pickupLocation      LRMS.GeoLocation OPTIONAL, -- if requester not at stoppoint  
    requester-route      SCHRouteIden,  
    requester-route-direction  LRMS.Direction OPTIONAL,  
    to-stoppoint        CPTStoppointIden,  
    requester-eta-at-stoppoint CPT-DateTime OPTIONAL,  
    reason              CC-TravelerDenyReason OPTIONAL  
}
```

The following dialogs use this message:

[Request Wheelchair Pickup](#)

## C.111 Message CcWheelchairPickup {Cc 2081}

**Use:**

Instruct a PTV to pick up a passenger in a wheelchair.

**Remarks:**

**ASN1:**

```
CcWheelchairPickup ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    requester-id               CC-TravelerRequestID, -- assigned by requester entity
    requester-time              CPT-DateTime, -- time requested
    requester-vehicle            CPTVehicleIden OPTIONAL,
    pickupStoppoint             CPTStoppointIden OPTIONAL, -- if requester is at a stoppoint
    pickupLocation               LRMS.GeoLocation OPTIONAL, -- if requester not at stoppoint
    requester-route              SCHRouteIden,
    requester-route-direction     LRMS.Direction OPTIONAL,
    to-stoppoint                CPTStoppointIden,
    requester-eta-at-stoppoint   CPT-DateTime OPTIONAL,
    central-id                  CC-TravelerRequestID,
    wait-until                  CPT-DateTime,
    pickup-PTV                  CPTVehicleIden
}
```

The following dialogs use this message:

[Request Wheelchair Pickup](#)

## C.112 Message CcWheelchairReq {Cc 2082}

**Use:**

Request to have wheelchair pickup provided.

**Remarks:**

**ASN1:**

```
CcWheelchairReq ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    requester-id               CC-TravelerRequestID, -- assigned by requester entity
    requester-time              CPT-DateTime, -- time requested
    requester-vehicle            CPTVehicleIden OPTIONAL, -- if already on a vehicle
    pickupStoppoint             CPTStoppointIden OPTIONAL, -- if requester is at a stoppoint
    pickupLocation               LRMS.GeoLocation OPTIONAL, -- if requester not at stoppoint
    requester-route              SCHRouteIden,
    requester-route-direction     LRMS.Direction OPTIONAL,
    to-stoppoint                CPTStoppointIden,
    requester-eta-at-stoppoint   CPT-DateTime OPTIONAL
}
```

**The following dialogs use this message:**

[Request Wheelchair Pickup](#)

### **C.113 Message CcWorkOrderAssign {Cc 2097}**

**Use:**

Provide and assign a workorder.

**Remarks:**

**ASN1:**

```
CcWorkOrderAssign ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    assignee            CPTEmployeeIden,
    time-assigned      CPT-DateTime,
    work-order          CCWorkOrder,
    ...   -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Report Work Order Assignment](#)

### **C.114 Message CcWorkOrderAssignAck {Cc 2098}**

**Use:**

Acknowledge a work order assignment.

**Remarks:**

The accepted field should be set to true unless the assignment was received, but could not be accepted by the assignee.

**ASN1:**

```
CcWorkOrderAssignAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    assignee            CPTEmployeeIden,
    time-assigned      CPT-DateTime,
    work-order-number   CC-WorkorderNumber,
    accepted            CPT-Boolean
}
```

**The following dialogs use this message:**

[Report Work Order Assignment](#)

## C.115 Message CcWorkOrderUpdate {Cc 2095}

### Use:

Update an assigned work order.

### Remarks:

### ASN1:

```
CcWorkOrderUpdate ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    assignee           CPTEmployeeIden,
    update-time        CPT-Datetime,
    work-order         CCWorkOrder,
    ...   -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Report Work Order Update](#)

## C.116 Message CcWorkOrderUpdateAck {Cc 2096}

### Use:

Acknowledge a work order update.

### Remarks:

### ASN1:

```
CcWorkOrderUpdateAck ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    assignee           CPTEmployeeIden,
    update-time        CPT-Datetime,
    work-order-number CC-WorkorderNumber
}
```

The following dialogs use this message:

[Report Work Order Update](#)

## C.117 Message CptBadLoadRequest {Cpt 2007}

### Use:

Notify the onboard component of an error in a request to load a file.

### Remarks:

### ASN1:

```
CptBadLoadRequest ::= SEQUENCE {
    bad-Request          CPTLoadFileHeader, -- specifies the bad request
    reason               CPT-LoadStopReason
}
```

The following dialogs use this message:

[Load Annunciation Information](#)  
[Load Canned Message Text](#)  
[Load Component Configuration Data](#)  
[Load Component Software](#)  
[Load GIS File](#)  
[Load PTV Alarm Limits](#)  
[Load Fare Collection Data](#)  
[Load Operator Assignments](#)  
[Load Schedule](#)  
[Load Vehicle Assignments](#)  
[Load TSP Business Rules](#)

## C.118 Message CptCommandTimeUpdate {Cpt 2033}

### Use:

Provide a time update, or a time-offset update.

### Remarks:

### ASN1:

```
CptCommandTimeUpdate ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    commandID          CPT-CommandID,
    current-time        CPT-DateTime,
    utc-offset          CPT-Duration OPTIONAL,
    time-name           CPT-TimeName OPTIONAL,
    time-nameLangs      CPTAdditionalLanguageContents OPTIONAL
}
```

The following dialogs use this message:

[Command Set Time](#)

## C.119 Message CptCurrentVersionNotice {Cpt 2009}

### Use:

Used in load dialogs to notify the onboard component of the current version(s) of any files to be stored on the onboard component.

### Remarks:

The files-to-delete field lists files that can be deleted by the onboard component to make room for new files to be loaded, and is not present if no files are to be deleted.

### ASN1:

```
CptCurrentVersionNotice ::= SEQUENCE {
    current-files          SEQUENCE (SIZE(1..100)) OF CPTLoadFileHeader,
    deleted-files          SEQUENCE (SIZE(1..100)) OF CPTLoadFileHeader OPTIONAL,
    languages              CPTLanguageList OPTIONAL,
    vehicleID              CPTVehicleIden OPTIONAL,
    stoppointID            CPTStoppointIden OPTIONAL
}
```

### The following dialogs use this message:

[Load Annunciation Information](#)  
[Load Canned Message Text](#)  
[Load Component Configuration Data](#)  
[Load Component Software](#)  
[Load GIS File](#)  
[Load PTV Alarm Limits](#)  
[Load Fare Collection Data](#)  
[Load Operator Assignments](#)  
[Load Schedule](#)  
[Load Vehicle Assignments](#)  
[Load TSP Business Rules](#)

## C.120 Message CptEmployeeList {Cpt 2020}

### Use:

Convey a list of employees and associated information.

### Remarks:

If the updated-since field is present, only employee records changed since the indicated date/time are included. The include-employees, facilities, units, and categories fields are present only if included in the eliciting CptEmployeeListSub message, and include only those items for which data (or updated dated data) is actually provided."

### ASN1:

```
CptEmployeeList ::= SEQUENCE {
    subscriptionInfo        CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    updates-since          CPT-DateTime OPTIONAL,
    include-employees       SEQUENCE (SIZE(1..25000)) OF CPTEmployeeIden OPTIONAL,
```

```
facilities          SEQUENCE (SIZE(1..500)) OF CPTTransitFacilityIden OPTIONAL,
organizations       SEQUENCE (SIZE(1..1000)) OF CPTOrganizationalUnitIden OPTIONAL,
categories         SEQUENCE (SIZE(1..300)) OF CPT-EmplJobCat OPTIONAL,
employees          SEQUENCE (SIZE(1..25000)) OF CPTEmployee OPTIONAL,
deleted-employees  SEQUENCE (SIZE(1..25000)) OF CPT-EmployeeID OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Employee List](#)

## C.121 Message CptEmployeeListSub {Cpt 2021}

### Use:

Request information about employees. Specified by Iden, facility, organizational unit, or job category.

### Remarks:

The updated-since field indicates that only employee records that have changed since the indicated date/time should be provided. This message is used to elicit the CptEmployeeList message.

### ASN1:

```
CptEmployeeListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    updates-since         CPT-DateTime OPTIONAL,
    include-employees     SEQUENCE (SIZE(1..25000)) OF CPTEmployeeIden OPTIONAL,
    facilities            SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    organizations         SEQUENCE (SIZE(1..1000)) OF CPTOrganizationalUnitIden OPTIONAL,
    categories            SEQUENCE (SIZE(1..300)) OF CPT-EmplJobCat OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Employee List](#)

## C.122 Message CptFilesToUnload {Cpt 2013}

### Use:

Identify files stored in an onboard/field component that are ready for unload to the corresponding fixed component.

### Remarks:

### ASN1:

```
CptFilesToUnload ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden OPTIONAL,
    componentID        OB-MID OPTIONAL,
    stoppoint           CPTStoppointIden OPTIONAL,
    field-address       CPT-IPAddress OPTIONAL,
    field-port          CPT-UDP-TCP-PortNumber OPTIONAL,
    available-files     SEQUENCE (SIZE(1..100)) OF CPTUnloadFileHeader OPTIONAL
}
```

### The following dialogs use this message:

[Unload PTV Performance Data](#)  
[Unload Video Images](#)  
[Unload Fare Collection Data](#)  
[Unload PRG Event Log](#)

## C.123 Message CptFleetSubsets {Cpt 2026}

### Use:

Define groups of PTVs in the fleet. PTVs in a group share an arbitrary attribute such as brand, type of onboard electronics, common home garage or any other agency defined attribute.

### Remarks:

Receipt of a group definition with the same group id as a previously received group definition implies the old definition should be overwritten. If the updates-since field is present, this message only contains changes to group definitions since the indicated datetime.

### ASN1:

```
CptFleetSubsets ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    updates-since         CPT-DateTime OPTIONAL,
    defined-groups        SEQUENCE (SIZE(1..30000)) OF CPTFleetSubsetGroup OPTIONAL,
    deleted-groups        SEQUENCE (SIZE(1..30000)) OF CPT-FleetSubset OPTIONAL
}
```

### The following dialogs use this message:

[Publish Fleet Subset Definitions](#)

## C.124 Message CptFleetSubsetsSub {Cpt 2027}

### Use:

Request the group definitions for agency defined PTV groups.

### Remarks:

If the updates-since field is present, only updates to groups since the indicated datetime are requested. This message is used to elicit the CptFleetSubsets message.

### ASN1:

```
CptFleetSubsetsSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    updates-since         CPT-DateTime OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Fleet Subset Definitions](#)

## C.125 Message CptForceLoad {Cpt 2011}

### Use:

Used by a fixed component (fixed business system or laptop computer) to induce an onboard/field component to initiate its load dialog(s).

### Remarks:

The via-WLAN field is used to specify whether the load is to be initiated via the wireless LAN or via the laptop port.

### ASN1:

```
CptForceLoad ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden OPTIONAL,
    componentID        OB-MID OPTIONAL,
    stoppoint           CPTStoppointIden OPTIONAL,
    field-address       CPT-IPAddress OPTIONAL,
    field-port          CPT-UDP-TCP-PortNumber OPTIONAL,
    via-WLAN            CPT-Boolean
}
```

**The following dialogs use this message:**

[Load Annunciation Information](#)  
[Load Canned Message Text](#)  
[Load Component Configuration Data](#)  
[Load Component Software](#)

[Load GIS File](#)  
[Load PTV Alarm Limits](#)  
[Load Fare Collection Data](#)  
[Load Operator Assignments](#)  
[Load Schedule](#)  
[Load Vehicle Assignments](#)  
[Load TSP Business Rules](#)

## C.126 Message CptForceUnload {Cpt 2017}

### Use:

Trigger an onboard/field component to initiate a unload process. This message is primarily intended for use where a laptop has been connected to the onboard/field equipment for a unload.

### Remarks:

1. The via-WLAN field is set to false to indicate that the unload is to a laptop computer.

### ASN1:

```
CptForceUnload ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden OPTIONAL,
    componentID                OB-MID OPTIONAL,
    stoppoint                  CPTStoppointIden OPTIONAL,
    field-address              CPT-IPAddress OPTIONAL,
    field-port                 CPT-UDP-TCP-PortNumber OPTIONAL,
    via-WLAN                   CPT-Boolean
}
```

### The following dialogs use this message:

[Unload PTV Performance Data](#)  
[Unload Video Images](#)  
[Unload Fare Collection Data](#)  
[Unload PRG Event Log](#)

## C.127 Message CptLoadControl {Cpt 2008}

### Use:

Used in load dialogs to control the progress of the load on a file-by-file basis. Also aborts or ends the load.

### Remarks:

The load-stop-reason field is included only when stop-Load is true. The next-file-requested field is present only if the onboard/field component is requesting another file load.

### ASN1:

```
CptLoadControl ::= SEQUENCE {
    on-hand-files            SEQUENCE (SIZE(1..100)) OF CPTLoadFileHeader,
    languages                CPTLanguageList OPTIONAL,
    most-Recent-Load-Time    CPT-DateTime OPTIONAL,
    most-Recent-Load-File    CPTLoadFileHeader OPTIONAL,
    most-Recent-Load-Success CPT-Boolean OPTIONAL,
    stop-Load                 CPT-Boolean, -- set to False if load is to continue
    vehicleID                CPTVehicleIden OPTIONAL,
    load-Stop-Reason          CPT\_LoadStopReason OPTIONAL,
    next-file-requested       CPTLoadFileHeader OPTIONAL,
    next-file-update-since    CPT-DateTime OPTIONAL -- presence of next-file-update-since
indicates the next file should be updates since the indicated date/time only, not a complete file
load
}
```

The following dialogs use this message:

[Load Annunciation Information](#)  
[Load Canned Message Text](#)  
[Load Component Configuration Data](#)  
[Load Component Software](#)  
[Load GIS File](#)  
[Load PTV Alarm Limits](#)  
[Load Fare Collection Data](#)  
[Load Operator Assignments](#)  
[Load Schedule](#)  
[Load Vehicle Assignments](#)  
[Load TSP Business Rules](#)

## C.128 Message CptOnboardVersionNotice {Cpt 2010}

### Use:

Used in load dialogs to notify the fixed component of the file versions stored on the onboard/field component prior to initiating any load file transfers.

### Remarks:

### ASN1:

```
CptOnboardVersionNotice ::= SEQUENCE {
    on-hand-files            SEQUENCE (SIZE(1..100)) OF CPTLoadFileHeader,
    languages                CPTLanguageList OPTIONAL,
    vehicleID                CPTVehicleIden OPTIONAL
}
```

The following dialogs use this message:

[Load Annunciation Information](#)  
[Load Canned Message Text](#)  
[Load Component Configuration Data](#)  
[Load Component Software](#)  
[Load GIS File](#)  
[Load PTV Alarm Limits](#)  
[Load Fare Collection Data](#)  
[Load Operator Assignments](#)  
[Load Schedule](#)  
[Load Vehicle Assignments](#)  
[Load TSP Business Rules](#)

## C.129 Message CptPushFailure {Cpt 2024}

### Use:

Notify a sender that a push attempt failed.

### Remarks:

### ASN1:

```
CptPushFailure ::= SEQUENCE {
    push-header              CPTPushHeader,
    time-received            CPT-DateTime,
    reason                  CPT-ErrorCode
}
```

The following dialogs use this message:

[Push Differential GPS Data](#)  
[Push Traveler Request Log](#)

[Push Fare Data](#)  
[Push Fare Zones](#)  
[Push Agency Static Files](#)  
[Push Text Timetable](#)  
[Push Block Schedule](#)  
[Push Calendar](#)  
[Push Master Schedule Version](#)  
[Push Operator Assignments](#)  
[Push Patterns](#)  
[Push Roster](#)  
[Push Route Schedule](#)  
[Push Run Schedule](#)  
[Push Running Times](#)  
[Push Timepoints](#)  
[Push Vehicle Assignments](#)  
[Push GIS Data](#)  
[Push Geolocation Data](#)

### C.130 Message CptPushSuccess {Cpt 2025}

#### Use:

Notify a sender that a receiver successfully received a Push message.

#### Remarks:

#### ASN1:

```
CptPushSuccess ::= SEQUENCE {
    push-header          CPTPushHeader,
    time-received        CPT-DateTime
}
```

The following dialogs use this message:

[Push Differential GPS Data](#)  
[Push Traveler Request Log](#)  
[Push Fare Data](#)  
[Push Fare Zones](#)  
[Push Agency Static Files](#)  
[Push Text Timetable](#)  
[Push Block Schedule](#)  
[Push Calendar](#)  
[Push Master Schedule Version](#)  
[Push Operator Assignments](#)  
[Push Patterns](#)  
[Push Roster](#)  
[Push Route Schedule](#)  
[Push Run Schedule](#)  
[Push Running Times](#)  
[Push Timepoints](#)  
[Push Vehicle Assignments](#)  
[Push GIS Data](#)  
[Push Geolocation Data](#)

## C.131 Message CptShelterList {Cpt 2023}

### Use:

Provide a list of shelters for a specified group of stoppoints or transit facilities.

### Remarks:

This message may be used to provide changes to a previously obtained list using the update-since field.

### ASN1:

```
CptShelterList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    routes                SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    facilities             SEQUENCE (SIZE(1..500)) OF CPTTransitFacilityIden OPTIONAL,
    update-since          CPT-DateTime OPTIONAL,
    deleted-shelters      SEQUENCE (SIZE(1..25000)) OF CPTShelterIden OPTIONAL,
    shelters               SEQUENCE (SIZE(1..25000)) OF CPTShelter OPTIONAL
}
```

### The following dialogs use this message:

[Publish Shelters](#)

## C.132 Message CptShelterListSub {Cpt 2022}

### Use:

Request a list of shelters for a specified group of stoppoints or transit facilities.

### Remarks:

This message may be used to request changes to a previously obtained list using the update-since field. This message is used to elicit the CptShelterList message.

### ASN1:

```
CptShelterListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    routes                SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    facilities             SEQUENCE (SIZE(1..500)) OF CPTTransitFacilityIden OPTIONAL,
    update-since          CPT-DateTime OPTIONAL
}
```

### The following dialogs use this message:

[Publish Shelters](#)

## C.133 Message CptStoppointList {Cpt 2002}

### Use:

Provide a specified version of stoppoint information

### Remarks:

A stoppoint may be used in more than one pattern.

The include- fields indicate that available optional information is included for corresponding groups of fields in each CPTStoppoint frame.

This message may be used to send a list of changes to a stoppointlist version or effective date since a specified time. In

such a case the update-since field indicates the date/time from which updates are provided. The update-thru field indicates that the provided information includes all updates through the indicated date time. The deleted stoppoints field indicates stoppoints that were deleted from the list since the specified time.

### ASN1:

```
CptStoppointList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    update-since          CPT-DateTime OPTIONAL,
    effective             CPT-DateTime,
    stoppointVersion      CPT-StoppointVersion OPTIONAL,
    routes                SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    zones                 SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    include-location       CPT-Boolean,
    include-service        CPT-Boolean,
    include-facility       CPT-Boolean,
    include-agency         CPT-Boolean,
    include-construction   CPT-Boolean,
    include-signal         CPT-Boolean,
    include-incidents      CPT-Boolean,
    include-history        CPT-Boolean,
    update-thru            CPT-DateTime,
    stoppoints             SEQUENCE (SIZE(1..25000)) OF CPTStoppoint OPTIONAL,
    deleted-stoppoints     SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Stoppoint List](#)

## C.134 Message CptStoppointListSub {Cpt 2001}

### Use:

Request a specified version of stoppoint information

### Remarks:

The effective and stoppointVersion fields identify the effective date and optionally the version number for the stoppoint list. The update-since field (if present) indicates that the query is only for updates since the indicates date-time. The include- fields indicate that available optional information is requested for corresponding groups of fields in each CPTStoppoint frame.

### ASN1:

```
CptStoppointListSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    update-since               CPT-DateTime OPTIONAL,
    effective                  CPT-DateTime,
    stoppointVersion           CPT-StoppointVersion OPTIONAL,
    routes                     SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    zones                      SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    include-location            CPT-Boolean,
    include-service              CPT-Boolean,
    include-facility             CPT-Boolean,
    include-agency               CPT-Boolean,
    include-construction         CPT-Boolean,
    include-signal                CPT-Boolean,
    include-incidents             CPT-Boolean,
    include-history               CPT-Boolean
}
```

The following dialogs use this message:

[Publish Stoppoint List](#)

## C.135 Message CptStoppointSubsets {Cpt 2028}

### Use:

Define groups of stoppoints. Stoppoints in a group share an arbitrary attribute such as servicing route, zone, type of variable message sign etc.

### Remarks:

Receipt of a group definition with the same group id as a previously received group definition implies the old definition should be overwritten. If the updates-since field is present, this message only contains changes to group definitions since the indicated datetime.

### ASN1:

```
CptStoppointSubsets ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    updates-since              CPT-DateTime OPTIONAL,
    defined-groups             SEQUENCE (SIZE(1..30000)) OF CPTStoppointSubsetGroup OPTIONAL,
    deleted-groups             SEQUENCE (SIZE(1..30000)) OF CPT-StoppointSubset OPTIONAL
}
```

The following dialogs use this message:

[Publish Stoppoint Subset Definitions](#)

## C.136 Message CptStoppointSubsetsSub {Cpt 2029}

### Use:

Request the group definitions for agency-defined stoppoint groups.

### Remarks:

If the updates-since field is present, only updates to groups since the indicated datetime are requested. This message is used to elicit the CptStoppointSubsets message.

### ASN1:

```
CptStoppointSubsetsSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    updates-since              CPT-DateTime OPTIONAL
}
```

The following dialogs use this message:

[Publish Stoppoint Subset Definitions](#)

## C.137 Message CptStoppointsFile {Cpt 2016}

### Use:

Provide a specified version of stoppoint information for load to a vehicle.

### Remarks:

### ASN1:

```
CptStoppointsFile ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    stoppoints          SEQUENCE (SIZE(1..25000)) OF CPTStoppoint OPTIONAL,
    notes               SEQUENCE (SIZE(1..25000)) OF SCHNoteInfo OPTIONAL,
    deleted-stops       SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL
}
```

The following dialogs use this message:

[Load Schedule](#)

## C.138 Message CptSubErrorNotice {Cpt 2000}

### Use:

Used by a server (information provider) to notify a subscriber of an error condition in a requested subscription.

### Remarks:

Data in the subscription header should exactly match the subscription header provided by the subscriber. The description field may optionally be used to provide a human readable description of the error condition.

### ASN1:

```
CptSubErrorNotice ::= SEQUENCE {
    subscription        CPTSubscriptionHeader,
    languages           CPTLanguageList OPTIONAL,
    error               CPT-ErrorCode,
    description         CPT-ErrorDescription OPTIONAL,
    descriptionLangs   CPTAdditionalLanguageContents OPTIONAL
}
```

The following dialogs use this message:

[Publish Adherence Performance](#)  
[Publish Cc J-1939 Fault Codes](#)  
[Publish Daily Operating Data](#)  
[Publish Differential GPS Data](#)  
[Publish Fleet Health Alarms](#)  
[Publish Fleet Locations](#)

[Publish Fleet Mechanical Data](#)  
[Publish Fleet Passenger Data](#)  
[Publish PTV Adherence](#)  
[Publish PTV Health Alarms](#)  
[Publish PTV Parameters](#)  
[Publish PTV-AVL](#)  
[Publish PTV-Polled Parameters](#)  
[Publish Short Location](#)  
[Publish Traveler Request Log](#)  
[Publish Video Feed](#)  
[Publish Video Images](#)  
[Publish Block Subset Definitions](#)  
[Publish Employee List](#)  
[Publish Facilities](#)  
[Publish Fleet Subset Definitions](#)  
[Publish Shelters](#)  
[Publish Stoppoint List](#)  
[Publish Stoppoint Subset Definitions](#)  
[Publish Transfer Cluster List](#)  
[Publish Vehicle Inventory](#)  
[Publish Watchdog Timer](#)  
[Publish Daily Revenue Data](#)  
[Publish Fare Collection Health](#)  
[Publish Fare Equipment Subset Definitions](#)  
[Publish Fare Passenger Data](#)  
[Publish Fare Zones](#)  
[Publish Incident Report History](#)  
[Publish Incidents](#)  
[Publish Onboard Location](#)  
[Publish Onboard Passenger Count](#)  
[Publish Operator Sign On](#)  
[Publish Wireless LAN Status](#)  
[Publish Accessibility](#)  
[Publish Agency Profiles](#)  
[Publish Agency Static Files](#)  
[Publish Amenities](#)  
[Publish Announcements](#)  
[Publish Available Mailings](#)  
[Publish Customer Profile](#)  
[Publish Directions](#)  
[Publish Found Items](#)  
[Publish GTFS Timetable Data](#)  
[Publish Gate Bay Assignments](#)  
[Publish Geographic Zones](#)  
[Publish Itinerary Fare](#)  
[Publish Itinerary Map](#)  
[Publish Landmarks List](#)  
[Publish Location Map](#)  
[Publish Nearest Stop List](#)  
[Publish Route Information](#)  
[Publish Service Bulletin List](#)  
[Publish Service Status](#)  
[Publish Service Types](#)  
[Publish Stop Point ETA](#)  
[Publish Stoppoint Parking](#)  
[Publish Text Timetable](#)  
[Publish Trip Itinerary List](#)  
[Publish Pattern Service](#)  
[Publish Stoppoint Patterns](#)  
[Publish Actual Running Times](#)  
[Publish Block Schedule](#)  
[Publish Calendar](#)

[Publish Master Schedule Version](#)  
[Publish Operator Assignments](#)  
[Publish Pattern List](#)  
[Publish Pull In List](#)  
[Publish Pull Out List](#)  
[Publish Roster](#)  
[Publish Route Schedule](#)  
[Publish Run Schedule](#)  
[Publish Running Times](#)  
[Publish Stop Service](#)  
[Publish Timepoint List](#)  
[Publish Trip Detail](#)  
[Publish Unassigned Operators](#)  
[Publish Unassigned Vehicles](#)  
[Publish Vehicle Assignments](#)  
[Publish CC PRG Inputs](#)  
[Publish PRS Event Log](#)  
[Publish GIS Data](#)  
[Publish Location Conversion](#)  
[Publish Map Image](#)  
[Publish Route Geo Trace](#)

## C.139 Message CptTransferClusterList {Cpt 2018}

### Use:

Convey a list of transfer clusters, with their associated data.

### Remarks:

If the updated-since field is present, only clusters charged since the indicated date/time are included.

### ASN1:

```
CptTransferClusterList ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    routes                     SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stoppoints                 SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    updated-since              CPT-DateTime OPTIONAL,
    clusters                   SEQUENCE (SIZE(1..10000)) OF CPTTransferCluster,
    deleted-clusters          SEQUENCE (SIZE(1..10000)) OF CPTTransferClusterIden OPTIONAL
}
```

### The following dialogs use this message:

[Publish Transfer Cluster List](#)

## C.140 Message CptTransferClusterListSub {Cpt 2019}

### Use:

Request a list of transfer clusters with their associated data. This message can be used to request only updates made since the date/time specified using the updated-since field.

### Remarks:

This message is used to elicit the CptTransferClusterList message. This message is used to elicit the CptTransferClusterList message.

### ASN1:

```
CptTransferClusterListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    routes                SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    updated-since         CPT-DateTime OPTIONAL
}
```

The following dialogs use this message:

[Publish Transfer Cluster List](#)

## C.141 Message CptTransitFacilities {Cpt 2005}

### Use:

Provide a list of transit facilities.

### Remarks:

The facility-types field is used to specify the type(s) of facilities included. Absence of this field implies all facilities except stop point shelters. Stop point shelters should only be included if specifically requested in the eliciting CptTransitFacilitiesSub message.

### ASN1:

```
CptTransitFacilities ::= SEQUENCE {
    subscriptionHeader     CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    facility-types        SEQUENCE (SIZE(1..100)) OF CPT-TransitFacilityType OPTIONAL,
    facilities             SEQUENCE (SIZE(1..5000)) OF CPTTransitFacility
}
```

The following dialogs use this message:

[Publish Facilities](#)

## C.142 Message CptTransitFacilitiesSub {Cpt 2006}

### Use:

Request a list of transit facilities.

### Remarks:

The facility-types field is used to specify what type(s) of facilities should be included in the response. If this field is absent, all types EXCEPT STOP POINT SHELTERS should be included, Stop Point Shelters should ONLY be included if they are specifically requested using the facility-types field. This message is used to elicit the CptTransitFacilities message.

### ASN1:

```
CptTransitFacilitiesSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    facility-types          SEQUENCE (SIZE(1..100)) OF CPT-TransitFacilityType OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Facilities](#)

## C.143 Message CptUnloadControl {Cpt 2014}

### Use:

Controls the unload of files. Files are unloaded from an onboard/field component to a corresponding fixed component. The fixed component uses this to manage the process.

### Remarks:

The fixed component uses the fields-to-delete field to instruct the onboard/field component to delete files which have already been unloaded successfully, or are not needed. The fixed component uses the file-to-unload field to identify a file to be unloaded next.

### ASN1:

```
CptUnloadControl ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden OPTIONAL,
    componentID                OB-MID OPTIONAL,
    stoppoint                  CPTStoppointIden OPTIONAL,
    field-address               CPT-IPAddress OPTIONAL,
    field-port                 CPT-UDP-TCP-PortNumber OPTIONAL,
    deleted-files              SEQUENCE (SIZE(1..100)) OF CPTUnloadFileHeader OPTIONAL,
    file-to-unload             CPTUnloadFileHeader OPTIONAL
}
```

**The following dialogs use this message:**

[Unload PTV Performance Data](#)  
[Unload Video Images](#)  
[Unload Fare Collection Data](#)

[Unload PRG Event Log](#)

### C.144 Message CptUnloadRequestError {Cpt 2015}

#### Use:

The onboard component notifies the fixed component that a requested unload file is not available for unload.

#### Remarks:

#### ASN1:

```
CptUnloadRequestError ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden OPTIONAL,
    componentID                OB-MID OPTIONAL,
    stoppoint                  CPTStoppointIden OPTIONAL,
    field-address               CPT-IPAddress OPTIONAL,
    field-port                 CPT-UDP-TCP-PortNumber OPTIONAL,
    unavailable-file           CPTUnloadFileHeader
}
```

The following dialogs use this message:

[Unload PTV Performance Data](#)  
[Unload Video Images](#)  
[Unload Fare Collection Data](#)  
[Unload PRG Event Log](#)

### C.145 Message CptVehicleInventoryList {Cpt 2004}

#### Use:

Provide inventory information on transit vehicles.

#### Remarks:

The specific-vehicles field (if present) indicates the vehicles for which inventory information is provided. Use this field only if the corresponding field was used in the subscription request.

The specific-garages field (if present) indicates the garages for which the inventory is provided. Use this field only if the corresponding field was used in the subscription request.

#### ASN1:

```
CptVehicleInventoryList ::= SEQUENCE {
    subscriptionInfo            CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    specific-vehicles           SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-garages            SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    vehicles                   SEQUENCE (SIZE(1..25000)) OF CPTPTVehicle OPTIONAL
```

}

**The following dialogs use this message:**

[Publish Vehicle Inventory](#)

## C.146 Message CptVehicleInventoryListSub {Cpt 2003}

**Use:**

Request vehicle inventory information.

**Remarks:**

The subscription type should be query. Periodic and event subscription types should not be used.

The specific-vehicles field (if present) indicates that the subscriber is only interested in inventory information for the specific vehicles listed. This message is used to elicit the CptVehicleInventoryList message.

The specific-garages field (if present) indicates that the subscriber is only interested in inventory information for the specific garages listed.

A maximum of one of the specific-vehicles, and specific-garages fields should be used. If none of the fields are present, all vehicle inventory information for the specified interval is requested.

The elicited message is CptVehicleInventoryList

**ASN1:**

```
CptVehicleInventoryListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    Update-since          CPT-Datetime OPTIONAL,
    specific-vehicles     SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-garages      SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Vehicle Inventory](#)

### C.147 Message CptWatchdogTimer {Cpt 2032}

#### Use:

Provide a periodic keep alive message to a business system.

#### Remarks:

#### ASN1:

```
CptWatchdogTimer ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    time-sent            CPT-DateTime
}
```

The following dialogs use this message:

[Publish Watchdog Timer](#)

### C.148 Message CptWatchdogTimerSub {Cpt 2031}

#### Use:

Request periodic keep-alive messages from a business system.

#### Remarks:

This message is used to elicit the CptWatchdogTimer message.

#### ASN1:

```
CptWatchdogTimerSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader
}
```

The following dialogs use this message:

[Publish Watchdog Timer](#)

**C.149 Message FcCommandDisableEquip {Fc 2019}****Use:**

Instruct one or more pieces of fare equipment to cease operation or to operate in free-fare mode.

**Remarks:**

The free-mode field (if true) indicates that fares should not be charged, if false the field indicates the equipment should cease to operate. If the equipment-ids field is absent, the message applies to the recipient only.  
 This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcCommandDisableEquip ::= SEQUENCE {
    commandID           CPT-CommandID,
    command-time        CPT-DateTime,
    free-mode           CPT-Boolean,
    equipment-ids      SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL
}
```

**The following dialogs use this message:**

[Command\\_Disable\\_Fare\\_Equipment](#)

**C.150 Message FcCommandDisableEquipAck {Fc 2020}****Use:**

Acknowledge a command to disable one or more pieces of equipment.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcCommandDisableEquipAck ::= SEQUENCE {
    commandID           CPT-CommandID,
    command-time        CPT-DateTime,
    free-mode-requested CPT-Boolean,
    command-accepted   CPT-Boolean,
    time-implemented   CPT-DateTime OPTIONAL,
    free-mode-ids       SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL,
    cease-ops-ids       SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL
}
```

**The following dialogs use this message:**

[Command Disable Fare Equipment](#)

## C.151 Message FcCommandEnableEquip {Fc 2021}

**Use:**

Instruct one or more pieces of fare equipment to resume operation or to exit free-fare-mode.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcCommandEnableEquip ::= SEQUENCE {
    commandID          CPT-CommandID,
    command-time       CPT-DateTime,
    exit-free-mode     CPT-Boolean,
    equipment-ids      SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL
}
```

**The following dialogs use this message:**

[Command Enable Fare Equipment](#)

## C.152 Message FcCommandEnableEquipAck {Fc 2022}

**Use:**

Acknowledge a command reenable one or more pieces of equipment.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcCommandEnableEquipAck ::= SEQUENCE {
    commandID          CPT-CommandID,
    command-time       CPT-DateTime,
    exit-free-mode     CPT-Boolean,
    command-accepted   CPT-Boolean,
    time-implemented    CPT-DateTime OPTIONAL,
```

```
exit-free-mode-ids      SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL,
resume-ops-ids         SEQUENCE (SIZE(1..1000)) OF CPT-SerialNumber OPTIONAL
}
```

**The following dialogs use this message:**

[Command Enable Fare Equipment](#)

## C.153 Message FcEquipmentSubsets {Fc 2025}

**Use:**

Define groups of fare equipment. Equipment items in a group share an arbitrary attribute such as location, equipment type/model, inclusion in a pilot project etc.

**Remarks:**

Receipt of a group definition with the same group id as a previously received group definition implies the old definition should be overwritten. If the updates-since field is present, this message only contains changes to group definitions since the indicated date/time.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcEquipmentSubsets ::= SEQUENCE {
  subscriptionInfo      CPTSubscriptionHeader,
  languages             CPTLanguageList OPTIONAL,
  updates-since         CPT-DateTime OPTIONAL,
  defined-groups        SEQUENCE (SIZE(1..30000)) OF FCEquipmentGroup OPTIONAL,
  deleted-groups        SEQUENCE (SIZE(1..30000)) OF FC-FareEquipmentSubset OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Fare Equipment Subset Definitions](#)

## C.154 Message FcEquipmentSubsetsSub {Fc 2026}

### Use:

Request the group definitions for agency-defined fare equipment groups.

### Remarks:

If the updates-since field is present, only updates to groups since the indicated datetime are requested. This message is used to elicit the FcEquipmentSubsets message.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcEquipmentSubsetsSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    updates-since         CPT-DateTime OPTIONAL
}
```

### The following dialogs use this message:

[Publish Fare Equipment Subset Definitions](#)

## C.155 Message FcFareDataPush {Fc 2028}

### Use:

Allow a business system to push fare information to another business system.

### Remarks:

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcFareDataPush ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    activationDate       CPT-Date,
    fareZones           SEQUENCE (SIZE(1..200)) OF FCFareZoneDefinition,
    basicFare           FCFareDefinitionRecord OPTIONAL,
    stopFares            SEQUENCE (SIZE(1..15000)) OF FCFareDefinitionRecord OPTIONAL,
    zoneFares            SEQUENCE (SIZE(1..1000)) OF FCFareDefinitionRecord OPTIONAL,
    badMedias            SEQUENCE (SIZE(1..100000)) OF FCFareMediaPair OPTIONAL,
    stopInfoSets         SEQUENCE (SIZE(1..25000)) OF CPTStoppoint OPTIONAL,
    dayDefinitions       SEQUENCE (SIZE(1..10)) OF FCDayDefinition OPTIONAL,
    allowedTransfers    SEQUENCE (SIZE(1..10000)) OF FCAccountedTransferRecord OPTIONAL,
```

```
accessPermissions          SEQUENCE (SIZE(1..100)) OF FCFareboxAccessPermission OPTIONAL,
policies                  SEQUENCE (SIZE(1..10000)) OF FCFarePolicyRecord OPTIONAL
}
```

**The following dialogs use this message:**

[Push Fare Data](#)

## C.156 Message FcFareHealth {Fc 2001}

**Use:**

Provide health status information for fare collection equipment to the fixed fare collection application, control center or other authorized subscriber.

**Remarks:**

The event-list and update-list fields may both be absent if there are no events to report and the subscription requires a message (e.g. upon initially establishing the subscription)

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcFareHealth ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    vehicle               CPTVehicleIden OPTIONAL,
    stoppoint              CPTStoppointIden OPTIONAL,
    equipmentID           CPT-SerialNumber OPTIONAL,
    dateTIme              CPT-DateTime,
    software-info          OBSWComponent,
    farebox-serial-number   CPT-SerialNumber OPTIONAL,
    cashbox-id             CPT-SerialNumber OPTIONAL,
    smartcard-reader-id     CPT-SerialNumber OPTIONAL,
    configuration-table-id  CPT-FileVersion OPTIONAL,
    event-list              SEQUENCE (SIZE(1..20)) OF FCComponentEventInstance OPTIONAL,
    update-list              SEQUENCE (SIZE(1..20)) OF FCComponentEventStatusReport OPTIONAL,
    ...      -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Publish Fare Collection Health](#)

### C.157 Message FcFareHealthSub {Fc 2002}

#### Use:

Request a subscription to health information for fare collection equipment.

#### Remarks:

This message is used to elicit the FcFareHealth message.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

#### ASN1:

```
FcFareHealthSub ::= SEQUENCE {
    subscriptionInfo          CPTSSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden OPTIONAL,
    stoppoint                  CPTStoppointIden OPTIONAL,
    equipmentID               CPT-SerialNumber OPTIONAL -- individual machine identifier
}
```

The following dialogs use this message:

[Publish Fare Collection Health](#)

### C.158 Message FcFareLoadData {Fc 2000}

#### Use:

Load fare collection related information to the onboard fare collection equipment.

#### Remarks:

1. The activationDate field indicates the date on which the fare information becomes effective. If this field is absent, the information is effective upon receipt. 2. The fareZones field is used to define the fare zones used by the agency. This field is not present for agencies that do not use zone based fares. 3. The basicFare field is used to define the fare structure for ride-based fare policies. 4. The stopFares field is used to define the fare structure for stop pair-based fare policies. 5. The zoneFares field is used to define the fare structure for zone-based fare policies. 6. The badMedias and goodMedias allow an agency to specify ranges of fare media as good or bad. 7. The stopInfoSets field allows an agency to convey stop information to the onboard fare system. 8. The dayDefinitions field allows an agency to define the types of dates (e.g. weekday, holiday) to the fare collection system. Not all agencies have day-type dependent fare policies. 9. The allowedTransfers field allows an agency to specify what transfers are permissible. 10. The policies field allows an agency to specify fare policies.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```

FcFareLoadData ::= SEQUENCE {
    fileHeader           CPTLoadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    activationDate       CPT-Date OPTIONAL,
    equipment-stoppoint CPTStoppointIden OPTIONAL,
    equipment-location   LRMS.GeoLocation OPTIONAL,
    location-memo        CPT-Footnote OPTIONAL,
    location-memoLangs  CPTAdditionalLanguageContents OPTIONAL,
    fareZones            SEQUENCE (SIZE(1..200)) OF FCFareZoneDefinition OPTIONAL,
    basicFare             FCFareDefinitionRecord OPTIONAL,
    stopFares             SEQUENCE (SIZE(1..15000)) OF FCFareDefinitionRecord OPTIONAL,
    zoneFares             SEQUENCE (SIZE(1..1000)) OF FCFareDefinitionRecord OPTIONAL,
    badMedias              FCFareMediaPair OPTIONAL,
    goodMedias             FCFareMediaPair OPTIONAL,
    stopInfosets           CPTStoppoint OPTIONAL,
    dayDefinitions         FCDayDefinition OPTIONAL,
    allowedTransfers       FCAllowedTransferRecord OPTIONAL,
    accessPermissions      FCFareboxAccessPermission OPTIONAL,
    policies                FCFarePolicyRecord OPTIONAL,
    screen-saver            CC-ExecutableSoftware OPTIONAL,
    utfs-actions             FCActionListEntryUTFS OPTIONAL
}

```

**The following dialogs use this message:**

[Load Fare Collection Data](#)

### C.159 Message FcFareZonePush {Fc 2027}

**Use:**

Allow fare zone definitions created by one business system to be pushed to another business system.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```

FcFareZonePush ::= SEQUENCE {
    push-header           CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    activationDate       CPT-Date,
    fareZones            SEQUENCE (SIZE(1..200)) OF FCFareZoneDefinition
}

```

**The following dialogs use this message:**

[Push Fare Zones](#)

## C.160 Message FcFareZones {Fc 2013}

### Use:

Provide fare zone definitions from one business system to another.

### Remarks:

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcFareZones ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    time-provided         CPT-DateTime,
    activation-date       CPT-Date,
    zones                 SEQUENCE (SIZE(1..200)) OF FCFareZoneDefinition
}
```

### The following dialogs use this message:

[Publish Fare Zones](#)

## C.161 Message FcFareZonesSub {Fc 2014}

### Use:

Request fare zone definitions from a business system.

### Remarks:

This message is used to elicit the FcFareZones message.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcFareZonesSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader
}
```

### The following dialogs use this message:

[Publish Fare Zones](#)

## C.162 Message FcPassengerData {Fc 2015}

### Use:

Transfer passenger count information extracted from fare data from one business system to another.

### Remarks:

The begin, end, routes, and stops fields define filters on the data provided. The records field should only be absent if no records met the filter criteria.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcPassengerData ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    begin                CPT-DateTime OPTIONAL,
    end                  CPT-DateTime OPTIONAL,
    routes               SEQUENCE (SIZE(1..1000)) OF SCHRouteIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    records               SEQUENCE (SIZE(1..100000)) OF FCPassengerCountRecord OPTIONAL
}
```

### The following dialogs use this message:

[Publish Fare Passenger Data](#)

## C.163 Message FcPassengerDataSub {Fc 2016}

### Use:

Request passenger count information extracted from fare data.

### Remarks:

The begin, end, routes, and stops fields define filters on the data provided. This message is used to elicit the FcPassengerData message. This message is part of the

Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcPassengerDataSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    begin                CPT-DateTime OPTIONAL,
    end                  CPT-DateTime OPTIONAL,
    routes               SEQUENCE (SIZE(1..1000)) OF SCHRouteIden OPTIONAL,
```

```
    stoppoints          SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Fare Passenger Data](#)

## C.164 Message FcReportCashboxEvent {Fc 2009}

**Use:**

Provide a report of a cashbox event.

**Remarks:**

The equipmentID may represent a PTV farebox, AVM or other equipment containing a cashbox. This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcReportCashboxEvent ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    time-reported     CPT-DateTime,
    vehicle           CPTVehicleIden OPTIONAL,
    stoppoint         CPTStoppointIden OPTIONAL,
    equipmentID       CPT-SerialNumber,
    event             FCCashBoxEvent,
    ...   -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Report Cashbox Event](#)

## C.165 Message FcReportCashboxEventAck {Fc 2010}

### Use:

Acknowledge a report of a cashbox event.

### Remarks:

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcReportCashboxEventAck ::= SEQUENCE {
    report-time           CPT-DateTime,
    ack-application       CPT-ApplicationID
}
```

### The following dialogs use this message:

[Report Cashbox Event](#)

## C.166 Message FcReportReconcileCashbox {Fc 2017}

### Use:

Report the results of one or more cashbox reconciliations from one business system to another.

### Remarks:

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcReportReconcileCashbox ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    time-reported              CPT-DateTime,
    vaultID                    CPT-SerialNumber OPTIONAL, -- where reconciliation occurred
    facility                   CPTTransitFacilityIden OPTIONAL, -- where reconciliation
occurred
    reconciliations            SEQUENCE (SIZE(1..10000)) OF FCCashBoxReconciliation,
    ...
    ... -- # LOCAL_CONTENT
}
```

### The following dialogs use this message:

[Report Cashbox Reconciliation](#)

**C.167 Message FcReportReconcileCashboxAck {Fc 2018}****Use:**

Acknowledge a report of cashbox reconciliations.

**Remarks:**

The cashboxes field provides positive confirmation of the list of reconciliation records received. This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcReportReconcileCashboxAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    reported-time              CPT-DateTime,
    vaultID                    CPT-SerialNumber OPTIONAL, -- where reconciliation occurred
    facility                   CPTTransitFacilityIden OPTIONAL, -- where reconciliation
occurred
    cashboxes                 SEQUENCE (SIZE(1..10000)) OF CPT-SerialNumber
}
```

**The following dialogs use this message:**

[Report Cashbox Reconciliation](#)

**C.168 Message FcReportValidationErrors {Fc 2008}****Use:**

Report that a farebox data load is invalid.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcReportValidationErrors ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden OPTIONAL,
    stoppoint                  CPTStoppointIden OPTIONAL,
    file-identifier            CPT-FileIdentifier,
    version-number             CPT-FileVersion,
    time-failed                CPT-DateTime OPTIONAL,
    found-errors               SEQUENCE (SIZE(1..300)) OF FCValidationError
}
```

**The following dialogs use this message:**

[Report Farebox Validation Error](#)

## C.169 Message FcReportValidationErrorsAck {Fc 2007}

**Use:**

Acknowledge a reported fare data validation failure.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcReportValidationErrorsAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden, -- refers to the farebox detecting the failure
    version-used               CPTFileVersion
}
```

**The following dialogs use this message:**

[Report Farebox Validation Error](#)

## C.170 Message FcReportVaultEvent {Fc 2023}

**Use:**

Provide a report of vault event.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcReportVaultEvent ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    time-reported              CPT-DateTime,
    vault                      CPT-SerialNumber,
    event                      FCVaultEvent,
    ... -- # LOCAL_CONTENT
```

}

**The following dialogs use this message:**

[Report Vault Event](#)

## C.171 Message FcReportVaultEventAck {Fc 2024}

**Use:**

Acknowledge a report of a vault event.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcReportVaultEventAck ::= SEQUENCE {
    report-time          CPT-DateTime,
    ack-application      CPT-ApplicationID
}
```

**The following dialogs use this message:**

[Report Vault Event](#)

## C.172 Message FcRevenueData {Fc 2011}

**Use:**

Provide revenue data from a data store to an authorized subscriber.

**Remarks:**

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcRevenueData ::= SEQUENCE {
    subscription-info      CPTSubscriptionHeader,
    languages              CPTLanguageList OPTIONAL,
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    stoppoints             SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    begin-date             CPT-DateTime,
```

```
end-date          CPT-DateTime,  
revenue-datasets   SEQUENCE (SIZE(1..100000)) OF FCRevenueRecord  
}
```

**The following dialogs use this message:**

[Publish Daily Revenue Data](#)

## C.173 Message FcRevenueDataSub {Fc 2012}

**Use:**

Query a data store for revenue data previously unloaded from stoppoint or PTV-based fare collection equipment.

**Remarks:**

This message is used to elicit the FcRevenueData message.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

**ASN1:**

```
FcRevenueDataSub ::= SEQUENCE {  
    subscription-info      CPTSSubscriptionHeader,  
    languages              CPTLanguageList OPTIONAL,  
    vehicles               SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,  
    stoppoints             SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,  
    begin-date            CPT-DateTime,  
    end-date              CPT-DateTime  
}
```

**The following dialogs use this message:**

[Publish Daily Revenue Data](#)

## C.174 Message FcUnloadData {Fc 2003}

### Use:

Convey history data from the onboard or stoppoint-based fare collection equipment to the fixed fare application or data repository.

### Remarks:

1. Local agencies determine how much history information they want to capture. If all fields are used in all data frames, some data is duplicated—for example between the boarding-alighting-list and the transaction-list. 2. The boarding-alighting-list field allows boarding/alighting events to be captured independent of financial information. 3. The transaction-list field captures financial transactions. 4. The health-list and health-update-list fields capture onboard/field fare collection equipment events.

This message is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### ASN1:

```
FcUnloadData ::= SEQUENCE {
    fileHeader           CPTUnloadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    equipment-id        CPT-SerialNumber OPTIONAL,
    equipment-location   LRMS.GeoLocation OPTIONAL,
    location-memo        CPT-Footnote OPTIONAL,
    location-memoLangs  CPTAdditionalLanguageContents OPTIONAL,
    boarding-alighting-list SEQUENCE (SIZE(1..100000)) OF FCBoardingAlightingRecord OPTIONAL,
    transaction-list     SEQUENCE (SIZE(1..100000)) OF FCTransactionRecord OPTIONAL,
    cash-box-contents    FCCashBoxContents OPTIONAL,
    health-list          SEQUENCE (SIZE(1..15000)) OF FCCComponentEventInstance OPTIONAL,
    health-update-list   SEQUENCE (SIZE(1..15000)) OF FCCComponentEventStatusReport
    OPTIONAL,
    turnstile-counts    SEQUENCE (SIZE(1..500)) OF FCTurnstileCountRecord OPTIONAL
}
```

### The following dialogs use this message:

[Unload Fare Collection Data](#)

## C.175 Message ImAlarmCancel {Im 2002}

### Use:

Sent from the vehicle computer to the dispatch computer to indicate that the vehicle operator has requested that the silent alarm be cancelled.

### Remarks:

The notReally field indicated that the operator has cancelled the silent alarm under duress. Not all agencies will use this feature.

### ASN1:

```
ImAlarmCancel ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden,
    timeRequested              CPT-DateTime,
    notReally                  CPT-Boolean OPTIONAL
}
```

**The following dialogs use this message:**

[Covert Alarm](#)

## C.176 Message ImCommandIncidentResponse {Im 2012}

### Use:

Direct a transit employee (responder) to go to an incident location.

### Remarks:

The response-units field is a list of units directed to respond by this message.

### ASN1:

```
ImCommandIncidentResponse ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    commandID                 CPT-CommandID,
    dispatch-time              CPT-DateTime,
    incident-info              IMIncident,
    response-units             SEQUENCE (SIZE(1..10)) OF IMResponseUnit,
    ...  -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Command Dispatch Incident Response](#)

## C.177 Message ImCommandIncidentResponseAck {Im 2013}

### Use:

Acknowledge a CcCommandIncidentResponse message.

### Remarks:

The will-respond field indicates whether the employee agreed to respond to the command.

### ASN1:

```
ImCommandIncidentResponseAck ::= SEQUENCE {
    commandID          CPT-CommandID, -- from command msg
    dispatch-time       CPT-DateTime, -- from command msg
    will-respond        CPT-Boolean,
    eta-time            CPT-DateTime OPTIONAL
}
```

### The following dialogs use this message:

[Command Dispatch Incident Response](#)

## C.178 Message ImIncidentHistory {Im 2011}

### Use:

Provide one or more current or past incident reports in response to a query.

### Remarks:

Absence of an incident-reports field indicates no reports matched the query criteria.

### ASN1:

```
ImIncidentHistory ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    requester              CPTEmployeeIden,
    routes                 SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    vicinity                LRMS.GeoLocation OPTIONAL,
    radius                  LRMS.Distance OPTIONAL,
    earliest                CPT-DateTime OPTIONAL,
    latest                  CPT-DateTime OPTIONAL,
    incidents               SEQUENCE (SIZE(1..1000)) OF IMIncidentIden OPTIONAL,
    incident-reports        SEQUENCE (SIZE(1..1000)) OF IMIncidentInfo OPTIONAL
}
```

### The following dialogs use this message:

[Publish Incident Report History](#)

**C.179 Message ImIncidentHistorySub {Im 2010}****Use:**

Query for one or more current or past incident reports.

**Remarks:**

The routes, vicinity, radius, earliest, latest and incidents fields are used to specify the scope of the query. Each field that is present constraints the search in response to the query. This message is used to elicit the ImIncidentHistory message.

**ASN1:**

```
ImIncidentHistorySub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    requester              CPTEmployeeIden,
    routes                 SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    vicinity                LRMS.GeoLocation OPTIONAL,
    radius                  LRMS.Distance OPTIONAL,
    earliest                CPT-DateTime OPTIONAL,
    latest                  CPT-DateTime OPTIONAL,
    incidents               SEQUENCE (SIZE(1..1000)) OF IMIncidentIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Incident Report History](#)

**C.180 Message ImIncidentList {Im 2009}****Use:**

Provide incident information for a specified geographical area.

**Remarks:**

The routes, vicinity, garages, or specificIncident field is copied from the ImIncidentListSub message. IncidentInfo records are present for each active incident in the subscribed scope, however when this message is used to provide an update to a subscriber concerning a previously provided incident, only changed detail is included in the incidentInfo record, however an incidentInfo record for each open incident must be included.

**ASN1:**

```
ImIncidentList ::= SEQUENCE {
    header      CPTSubscriptionHeader,
    languages   CPTLanguageList OPTIONAL,
    requester   CPTEmployeeIden,
    routes       SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    vicinity     SPPoint OPTIONAL,
    garages      SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    specificIncident IMIncidentIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Incidents](#)

## C.181 Message ImIncidentListSub {Im 2008}

**Use:**

Request incident information for a specified geographical area.

**Remarks:**

The requester field is used to identify the requesting employee, this may be needed to verify need-to-know. The scope of the incident(s) requested is defined by one of the fields routes, vicinity, garages, or specific incident. This message is used to elicit the ImIncidentList message.

**ASN1:**

```
ImIncidentListSub ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    requester               CPTEmployeeIden,
    routes                  SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    vicinity                SPPoint OPTIONAL,
    garages                 SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    specificIncident        IMIncidentIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Incidents](#)

## C.182 Message ImIncidentUpdate {Im 2005}

**Use:**

Provide an incident update notification from an employee user device (e.g. PDA, MDT) to the dispatch computer.

**Remarks:**

The originator field should identify the employee providing the update. Optional information should be included only if it has changed.

**ASN1:**

```
ImIncidentUpdate ::= SEQUENCE {
    languages               CPTLanguageList OPTIONAL,
    originator              CPTEmployeeIden,
    incident                IMIncidentIden,
    updateTime              CPT-DateTime,
    incidentInfo            IMIncident OPTIONAL,
    trafficImpact           IMTrafficImpact OPTIONAL,
```

```
otherVehicles          SEQUENCE (SIZE(1..100)) OF IMOtherVehicleInvolved OPTIONAL,  
incidentClosed         CPT-Boolean  
}
```

**The following dialogs use this message:**

[Report Incident Update](#)

### C.183 Message ImInitialIncidentReport {Im 2004}

**Use:**

Provide an initial report of an incident from a transit employee's user device to the dispatcher.

**Remarks:**

**ASN1:**

```
ImInitialIncidentReport ::= SEQUENCE {  
    languages           CPTLanguageList OPTIONAL,  
    originator          CPTEmployeeIden,  
    incidentInfo        IMIncident,  
    trafficImpact       IMTrafficImpact OPTIONAL,  
    otherVehicles        SEQUENCE (SIZE(1..100)) OF IMOtherVehicleInvolved OPTIONAL  
}
```

**The following dialogs use this message:**

[Report Incident](#)

### C.184 Message ImInitialReportAck {Im 2006}

**Use:**

Indicate to the provider of an initial incident report that the report was received by the dispatcher.

**Remarks:**

Agency policy determines whether this message is sent by the dispatch computer as soon as it receives the report, or whether a manual acknowledgement by the dispatcher is required first. The originator is copied from the original ImInitialIncidentReport message.

**ASN1:**

```
ImInitialReportAck ::= SEQUENCE {  
    languages           CPTLanguageList OPTIONAL,  
    originator          CPTEmployeeIden,  
    incident            IMIncidentIden,  
    ackTime              CPT-DateTime,  
    dispatcher          CPTEmployeeIden OPTIONAL  
}
```

**The following dialogs use this message:**

[Report Incident](#)

## C.185 Message ImSilentAlarm {Im 2000}

**Use:**

Notify the dispatch computer that the silent alarm has been triggered on a transit vehicle.

**Remarks:**

The intent is that the operator does not need to manually input any information. Optional fields are included only if the vehicle computer has information available to automatically populate those fields.

**ASN1:**

```
ImSilentAlarm ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden,
    timeDate                   CPT-DateTime,
    location                   LRMS.GeoLocation,
    inMotion                   CPT-Boolean OPTIONAL,
    doorsOpen                  CPT-Boolean OPTIONAL,
    passengersOnboard          IM-VehicleOccupantCount OPTIONAL,
    operator                   CPTOperatorIden OPTIONAL,
    engineRunning              CPT-Boolean OPTIONAL,
    ...
    ... -- # LOCAL_CONTENT }
```

**The following dialogs use this message:**

[Covert Alarm](#)

## C.186 Message ImSilentAlarmAck {Im 2001}

**Use:**

Notify the vehicle computer that the silent alarm has been acknowledged by the dispatcher.

**Remarks:**

This message triggers agency defined actions by the onboard computer. Usually this includes covert changes to the MDT display format.

**ASN1:**

```
ImSilentAlarmAck ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    vehicle                    CPTVehicleIden,
    policeEnroute              CPT-Boolean OPTIONAL
}
```

**The following dialogs use this message:**

[Covert Alarm](#)

### C.187 Message ImSilentAlarmClose {Im 2003}

**Use:**

Sent by the dispatch computer to the vehicle computer to indicate that the dispatcher has closed out the silent alarm previously actuated by that vehicle.

**Remarks:**

**ASN1:**

```
ImSilentAlarmClose ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    vehicle             CPTVehicleIden,
    timeClosed          CPT-DateTime
}
```

**The following dialogs use this message:**

[Covert Alarm](#)

### C.188 Message ImUpdateAck {Im 2007}

**Use:**

Indicate to the provider of an incident update report that the update was received by the dispatcher.

**Remarks:**

Agency policy determines whether this message is sent by the dispatch computer upon receipt of the update, or whether a manual acknowledgement by the dispatcher is required first. The originator and incidentID fields are copied from the ImIncidentUpdate message.

**ASN1:**

```
ImUpdateAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    originator          CPTEmployeeIden,
    incidentID          IM-IncidentID,
    dispatcher          CPTEmployeeIden OPTIONAL
}
```

**The following dialogs use this message:**

[Report Incident Update](#)

**C.189 Message ObLocation {Ob 2001}****Use:**

Provide vehicle location information to an authorized onboard component.

**Remarks:**

1. The reason field identifies the event type that triggered the message.
2. The timepoint field should only be present if the report was triggered by a timepoint.
- The stoppoint field should only be present if the report was triggered by arriving/departing a stoppoint.
3. The on-route field indicates whether the vehicle is operating on its intended route, or has deviated from the route provided.
4. Layover-location and layover-end are present only at or approaching a layover. Layover is signified by a collocated timepoint-stoppoint-timepoint sequence in the trip pattern.
5. The trip-id field should contain the current trip's id if present. The field should always be present in the reason is start trip or end trip.
6. The event-id field should be present if and only if the reason is event-location.

**ASN1:**

```
ObLocation ::= SEQUENCE {
    subscriptionInfo           CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    requestIdentifier          CPT-RequestIdentifier,
    requesterID                OB-MID,
    reason                     OB-LocationReportReason,
    trip                       SCHTripIden OPTIONAL,
    time-reported              CPT-DateTime,
    latitude                   LRMS.Latitude,
    longitude                  LRMS.Longitude,
    direction                  LRMS.Angle, -- direction of travel [deg]
    speed                      OB-J1587-VelocityVectorSpeed,
    data-quality                SPDataQuality OPTIONAL,
    timepoint                  SCHTimepointIden OPTIONAL,
    stoppoint                  CPTStoppointIden OPTIONAL,
    activationID               SCHActivationIden OPTIONAL,
    passengers-aboard          OB-J1587-PassengerCounterPatronCount OPTIONAL,
    on-route                   CPT-Boolean,
    schedule-status             CPT-Duration OPTIONAL,
    layover-location            LRMS.GeoLocation OPTIONAL,
    layover-end                 CPT-DateTime OPTIONAL,
    odometer-reading            CPT-GenericCounter OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Onboard Location](#)

## C.190 Message ObLocationSub {Ob 2000}

### Use:

Request vehicle location reports be provided to an authorized onboard component.

### Remarks:

This message is used to elicit the ObLocation message.

### ASN1:

```
ObLocationSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    requesterID          OB-MID
}
```

### The following dialogs use this message:

[Publish Onboard Location](#)

## C.191 Message ObMenuResponse {Ob 2006}

### Use:

Notify an onboard component of the result of a ObNotifyMenu request.

### Remarks:

The component and requestID fields should be copied from the ObNotifyMenu message.

### ASN1:

```
ObMenuResponse ::= SEQUENCE {
    component            OB-MID,
    requestID           CPT-RequestIdentifier,
    result               OB-MenuSelection
}
```

### The following dialogs use this message:

[Report Menu Selection](#)

## C.192 Message ObNotifyMenu {Ob 2007}

### Use:

Notify the Mobile Data Terminal of a message with menu selection(s) for display to the operator.

### Remarks:

1. the message to the operator shall not exceed 160 characters in length.
2. The menu-items shall not exceed 16 characters in length.

### ASN1:

```
ObNotifyMenu ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    component                  OB-MID,
    requesteid                CPT-RequestIdentifier, -- assigned by requesting component
    priority                   CPT-PriorityLevel, -- default=128 (medium)
    operatorMsg                CPT-Footnote,
    operatorMsgLangs           CPTAdditionalLanguageContents OPTIONAL,
    menu-item-1                 OB-MenuItemText,
    menu-item-1Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-2                 OB-MenuItemText OPTIONAL,
    menu-item-2Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-3                 OB-MenuItemText OPTIONAL,
    menu-item-3Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-4                 OB-MenuItemText OPTIONAL,
    menu-item-4Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-5                 OB-MenuItemText OPTIONAL,
    menu-item-5Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-6                 OB-MenuItemText OPTIONAL,
    menu-item-6Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-7                 OB-MenuItemText OPTIONAL,
    menu-item-7Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-8                 OB-MenuItemText OPTIONAL,
    menu-item-8Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-9                 OB-MenuItemText OPTIONAL,
    menu-item-9Langs            CPTAdditionalLanguageContents OPTIONAL,
    menu-item-10                OB-MenuItemText OPTIONAL,
    menu-item-10Langs           CPTAdditionalLanguageContents OPTIONAL
}
```

The following dialogs use this message:

[Report Menu Selection](#)

### C.193 Message ObNotifyTripStart {Ob 2010}

#### Use:

Provide information about a scheduled trip at the start of that trip.

#### Remarks:

#### ASN1:

```
ObNotifyTripStart ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    actual-start-time          CPT-DateTime,
    trip-info                  CCPTVTripData,
    ...  -- # LOCAL_CONTENT
}
```

The following dialogs use this message:

[Notify Start of Trip](#)

### C.194 Message ObPassengerCount {Ob 2012}

#### Use:

Provide passenger counter information from the onboard component connected to the passenger count sensors, to other onboard components.

#### Remarks:

1. The stoppoint and location fields are available for use if the server has the information available. 2. The boarded, alighted, and onboard fields in the event record convey the actual passenger counting information at least one of these fields must be present. Although the onboard field is optional its use is highly recommended in all instances of this message. 3. The by-right-door and the by-left-door fields allow the boarding and alighting information to optionally be specified on a per door basis. Doors are counted from front to back.

#### ASN1:

```
ObPassengerCount ::= SEQUENCE {
    subscriptionInfo           CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    requesterID                OB-MID,
    event-record                OBStoppointRecord
}
```

The following dialogs use this message:

[Publish Onboard Passenger Count](#)

## C.195 Message ObPassengerCountSub {Ob 2011}

### Use:

Request passenger count information from the onboard component connected to the passenger count sensors

### Remarks:

This message is used to elicit the ObPassengerCount message.

### ASN1:

```
ObPassengerCountSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    requesterID          OB-MID
}
```

### The following dialogs use this message:

[Publish Onboard Passenger Count](#)

## C.196 Message ObReportHealth {Ob 2013}

### Use:

Report the health status of an onboard entity or component to another onboard entity or component.

### Remarks:

### ASN1:

```
ObReportHealth ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    report-time        CPT-DateTime,
    note               CPT-Footnote OPTIONAL,
    noteLangs          CPTAdditionalLanguageContents OPTIONAL,
    status-reports     SEQUENCE (SIZE(1..5)) OF OBHealthStatusRecord
}
```

### The following dialogs use this message:

[Report Onboard Component Health](#)

### C.197 Message ObReportHealthAck {Ob 2014}

#### Use:

Acknowledge receipt of a health report from an onboard component.

#### Remarks:

#### ASN1:

```
ObReportHealthAck ::= SEQUENCE {
    report-time           CPT-DateTime
}
```

The following dialogs use this message:

[Report\\_Onboard\\_Component\\_Health](#)

### C.198 Message ObSignon {Ob 2004}

#### Use:

Provide the sign-on/sign-off status of the operator to an onboard component.

#### Remarks:

If the latest event was a sign-on to the MDT, then the logon field is present and no the logoff field. Similarly if the latest event was a sign-off of the MDT, the logoff field is present, and the logon field absent. If the event is both (e.g. a relief), then both fields may be present.

#### ASN1:

```
ObSignon ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    requester             OB-MID,
    logon                CCLogOnOperator OPTIONAL,
    logoff                CCLogOffOperator OPTIONAL
}
```

The following dialogs use this message:

[Publish Operator Sign On](#)

## C.199 Message ObSignonSub {Ob 2005}

### Use:

Request a subscription to sign-on and sign-off events from the MDT.

### Remarks:

This message is used to elicit the ObSignon message.

### ASN1:

```
ObSignonSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    requester             OB-MID,
    languages              CPTLanguageList OPTIONAL
}
```

### The following dialogs use this message:

[Publish Operator Sign On](#)

## C.200 Message ObVoiceRequest {Ob 2008}

### Use:

Notify a separate VLU that the operator requested a voice call on the MDT.

### Remarks:

### ASN1:

```
ObVoiceRequest ::= SEQUENCE {
    call-type            CC-ResponseRequestType
}
```

### The following dialogs use this message:

[Operator Initiated Voice Call](#)

## C.201 Message ObVoiceRequestProgress {Ob 2009}

### Use:

Notify a separate MDT of the status of an operator initiated voice call.

### Remarks:

### ASN1:

```
ObVoiceRequestProgress ::= SEQUENCE {
    call-type          CC-RadioVoiceControl,
    status             CC-CallStatus
}
```

The following dialogs use this message:

[Operator Initiated Voice Call](#)

## C.202 Message ObWLANSatus {Ob 2003}

### Use:

Provide Wireless LAN availability status to an authorized onboard component

### Remarks:

1. The subscriptionInfo field is not copied from the ObWLANSatusSub message to reduce network capacity requirements. Only the requestIdentifier and requester fields are carried forward from the request message.
2. The field WLAN-available should be set to true if the wireless LAN is available for use, and to false when the wireless LAN is unavailable due to lack of coverage or communications equipment failure.

### ASN1:

```
ObWLANSatus ::= SEQUENCE {
    requestIdentifier   CPT-RequestIdentifier,
    requester           OB-MID,
    wlan-available      CPT-Boolean
}
```

The following dialogs use this message:

[Publish Wireless LAN Status](#)

## C.203 Message ObWLANStatusSub {Ob 2002}

### Use:

Request that the wireless LAN onboard component keep an authorized onboard component apprised of the wireless LAN's availability.

### Remarks:

This message is used to elicit the ObWLANStatus message.

### ASN1:

```
ObWLANStatusSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    requester             OB-MID
}
```

### The following dialogs use this message:

[Publish Wireless LAN Status](#)

## C.204 Message PiAccessibilityList {Pi 2079}

### Use:

Provide information on the accessibility options available for a specified agency, route etc. Accessibility here includes accessibility for both ADA, and other types of special access such as bikes, and surfboards.

### Remarks:

The agencies, routes, stoppoints, and modes fields indicate the items for which accessibility information is included in the response to the query. The agency field indicates the response characterizes the accessibility of the service provided by the agency as a whole. The routes field indicates that the response characterizes the accessibility of the service provided on the listed routes. The stoppoints field indicates that the response characterizes the accessibility of the service provided at the listed stoppoints. The modes fields, if present, indicates that accessibility information is only provided for the listed modes.

### ASN1:

```
PiAccessibilityList ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    agency                  CPT-AgencyID OPTIONAL,
    routes                  SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    stoppoints              SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
    modes                   SEQUENCE (SIZE(1..10)) OF CPT-Mode OPTIONAL
}
```

### The following dialogs use this message:

[Publish Accessibility](#)

## C.205 Message PiAccessibilityListSub {Pi 2078}

### Use:

Query for the accessibility options available for a specified agency, route etc. Accessibility here includes accessibility for both ADA, and other types of special access such as bikes, and surfboards.

### Remarks:

The agencies, routes, stoppoints, and modes fields indicate the items for which accessibility information is to be included in the response to the query. The agency field indicates the response should characterize the accessibility of the service provided by the agency as a whole. The routes field indicates that the response should characterize the accessibility of the service provided on the listed routes. The stoppoints field indicates that the response should characterize the accessibility of the service provided at the listed stoppoints. The modes fields, if present, indicates that accessibility information is only desired for the listed modes.

### ASN1:

```
PiAccessibilityListSub ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    agency                  CPT-AgencyID OPTIONAL,
    routes                  SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    stoppoints              SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL
}
```

### The following dialogs use this message:

[Publish Accessibility](#)

## C.206 Message PiAckNewProfile {Pi 2064}

### Use:

Acknowledge a customer profile.

### Remarks:

The existing profile number field is used if a duplicate is detected, and agency policy allows the return of the existing profile number to the reporter.

### ASN1:

```
PiAckNewProfile ::= SEQUENCE {
    languages               CPTLanguageList OPTIONAL,
    time-submitted          CPT-DateTime,
    new-profile-number      PITravelerIden, -- zero if not created
    existing-profile-number PITravelerIden OPTIONAL
}
```

### The following dialogs use this message:

[Report New Customer Profile](#)

**C.207 Message PiAckSubscriptionUpdate {Pi 2060}****Use:**

Acknowledge a subscription update.

**Remarks:**

Agency policy determines whether, and under what conditions the current (post-update) subscriptions are returned to the reporter.

**ASN1:**

```
PiAckSubscriptionUpdate ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    time-submitted              CPT-DateTime,
    customer-id                 PITravelerIden OPTIONAL,
    username                     CPT-Footnote OPTIONAL,
    usernameLangs               CPTAdditionalLanguageContents OPTIONAL,
    all-updates-accepted        CPT-Boolean,
    reason-not-accepted         CPT-Footnote OPTIONAL,
    reason-not-acceptedLangs   CPTAdditionalLanguageContents OPTIONAL, -- only if false above
    current-subscriptions       SEQUENCE (SIZE(1..20)) OF PICustSubscription OPTIONAL
}
```

**The following dialogs use this message:**

[Report Update Customer Subscription](#)

**C.208 Message PiAgencyFiles {Pi 2076}****Use:**

Provide publicly available static files published by an agency. This message can be used to provide the file descriptions only, or the descriptions and the content.

**Remarks:**

Some agencies may provide content delivery via non-TCIP means such as an ftp site, or URL.

The routes, agencies, stoppoints, filename, name-fragment, and description-fragment fields indicate the files included in the response to the query. If more than one of these fields are present, then only files that meet all of the criteria are included in the response. The routes field is interpreted to mean any file applicable to a route in the list. The agencies field is interpreted to mean any file applicable to a route in the list. The stoppoints field is interpreted to mean any file applicable to a stoppoint in the list. The file-name field indicates a file with a name matching the name provided. The name-fragment field allows a partial file name to be used to 'look' for a matching file. Similarly the description-fragment field allows a pattern match between information in the description and the provided string.

If the files field is absent, then no files met the criteria specified in the query.

**ASN1:**

```
PiAgencyFiles ::= SEQUENCE {
    subscriptionHeader          CPTSubscriptionHeader,
```

```

languages           CPTLanguageList OPTIONAL,
routes             SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
agencies           SEQUENCE (SIZE(1..5)) OF CPT-AgencyID OPTIONAL,
stoppoints         SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
file-name          CPT-Footnote OPTIONAL,
name-fragment      CPT-Footnote OPTIONAL,
name-fragmentLangs CPTAdditionalLanguageContents OPTIONAL,
description-fragment CPT-Footnote OPTIONAL,
description-fragmentLangs CPTAdditionalLanguageContents OPTIONAL,
include-content    CPT-Boolean,
files              SEQUENCE (SIZE(1..5000)) OF PIAgencyStaticFile OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Agency Static Files](#)

## C.209 Message PiAgencyFilesSub {Pi 2075}

### Use:

Request that publicly available static files published by an agency be provided to a subscriber. This query can be used to request the file descriptions only, or the descriptions and the content.

### Remarks:

This query can be used to request the file descriptions only, or the descriptions and the content, however, some agencies may provide content delivery via non-TCIP means such as an ftp site, or URL. Recommend exercising caution when sending queries that may return multiple files, combined with setting include-content to true.

The routes, agencies, stoppoints, filename, name-fragment, and description-fragment fields indicate the files to be included in the response to the query. If more than one of these fields are present, then only files that meet all of the criteria are included in the response. The routes field is interpreted to mean any file applicable to a route in the list. The agencies field is interpreted to mean any file applicable to a route in the list. The stoppoints field is interpreted to mean any file applicable to a stoppoint in the list. The file-name field indicates a file with a name matching the name provided. The name-fragment field allows a partial file name to be used to 'look' for a matching file. Similarly the description-fragment field allows a pattern match between information in the description and the provided string.

### ASN1:

```

PiAgencyFilesSub ::= SEQUENCE {
  subscriptionHeader   CPTSSubscriptionHeader,
  languages            CPTLanguageList OPTIONAL,
  routes               SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
  agencies              SEQUENCE (SIZE(1..5)) OF CPT-AgencyID OPTIONAL,
  stoppoints            SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
  file-name             CPT-Footnote OPTIONAL,
  name-fragment          CPT-Footnote OPTIONAL,
  description-fragment CPT-Footnote OPTIONAL,
  description-fragmentLangs CPTAdditionalLanguageContents OPTIONAL,
  include-content        CPT-Boolean
}

```

**The following dialogs use this message:**

[Publish Agency Static Files](#)**C.210 Message PiAgencyList {Pi 2074}****Use:**

Provide data on one or more transit agencies.

**Remarks:**

The agency-ids, agency-names, name-fragments, service-area, point, modes, and zones fields define the agencies included in the response. If more than one of these fields are present, then only agencies that meet all of the criteria are included in the response. The name-fragments field allows a partial agency name to be used to 'look' for a matching agency. The service-area field is interpreted to mean any agency whose service area overlaps with the service area polygon in the query. The point field is interpreted to mean any agency whose service area includes the specified point. The zones field is interpreted to mean any agency whose service area overlaps with any listed zone. The modes field is interpreted to mean any agency that provides service using a listed mode.

The 'include' fields are used to specify what items in the agency profile are included in the response to the query (if available). The include-URLs refers to the URLs used to access the agency's websites. The include-fares refers to the description of the agency's fare policy. The include-files refers to the agency's list of publicly available static files (but not to the files themselves). The include-zones field refers to the service zones that overlap the agency's service area. The include-hours field refers to the agency's hours of operation. The include-area field refers to the agency's service area boundaries.

If the profiles field is absent, then no agencies met the criteria specified in the query.

**ASN1:**

```

PiAgencyList ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    agency-ids              SEQUENCE (SIZE(1..100)) OF CPT-AgencyID OPTIONAL,
    agency-names             SEQUENCE (SIZE(1..100)) OF CPT-AgencyName OPTIONAL,
    agency-namesLangs        SEQUENCE (SIZE(1..100)) OF CPTAdditionalLanguageContents
OPTIONAL,
    name-fragments           SEQUENCE (SIZE(1..100)) OF CPT-AgencyName OPTIONAL,
    name-fragmentsLangs      SEQUENCE (SIZE(1..100)) OF CPTAdditionalLanguageContents
OPTIONAL,
    service-area             SPPolygon OPTIONAL,
    point                   SPPoint OPTIONAL,
    modes                   SEQUENCE (SIZE(1..20)) OF CPT-Mode OPTIONAL,
    zones                   SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    include-URLs             CPT-Boolean,
    include-fares            CPT-Boolean,
    include-files            CPT-Boolean,
    include-zones            CPT-Boolean,
    include-hours            CPT-Boolean,
    include-area              CPT-Boolean,
    profiles                 SEQUENCE (SIZE(1..200)) OF PIAgencyProfile OPTIONAL
}

```

**The following dialogs use this message:**[Publish Agency Profiles](#)

## C.211 Message PiAgencyListSub {Pi 2073}

### Use:

Request data on one or more transit agencies.

### Remarks:

The agency-ids, agency-names, name-fragments, service-area, point, modes, and zones fields define the agencies to be included in the response. If more than one of these fields are present, then only agencies that meet all of the criteria are included in the response. The name-fragments field allows a partial agency name to be used to 'look' for a matching agency. The service-area field is interpreted to mean any agency whose service area overlaps with the service area polygon in the query. The point field is interpreted to mean any agency whose service area includes the specified point. The zones field is interpreted to mean any agency whose service area overlaps with any listed zone. The modes field is interpreted to mean any agency that provides service using a listed mode.

The 'include' fields are used to determine what items in the agency profile should be included in the response to the query. The include-URLs refers to the URLs used to access the agency's websites. The include-fares refers to the description of the agency's fare policy. The include-files refers to the agency's list of publicly available static files (but not to the files themselves). The include-zones field refers to the service zones that overlap the agency's service area. The include-hours field refers to the agency's hours of operation. The include-area field refers to the agency's service area boundaries.

### ASN1:

```
PiAgencyListSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    agency-ids              SEQUENCE (SIZE(1..100)) OF CPT-AgencyID OPTIONAL,
    agency-names             SEQUENCE (SIZE(1..100)) OF CPT-AgencyName OPTIONAL,
    agency-namesLangs       SEQUENCE (SIZE(1..100)) OF CPTAdditionalLanguageContents
OPTIONAL,
    name-fragments          SEQUENCE (SIZE(1..100)) OF CPT-AgencyName OPTIONAL,
    name-fragmentsLangs     SEQUENCE (SIZE(1..100)) OF CPTAdditionalLanguageContents
OPTIONAL,
    service-area            SPPolygon OPTIONAL,
    point                   SPPoint OPTIONAL,
    modes                   SEQUENCE (SIZE(1..20)) OF CPT-Mode OPTIONAL,
    zones                   SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    include-URLs            CPT-Boolean,
    include-fares            CPT-Boolean,
    include-files            CPT-Boolean,
    include-zones            CPT-Boolean,
    include-hours            CPT-Boolean,
    include-area              CPT-Boolean
}
```

**The following dialogs use this message:**

[Publish Agency Profiles](#)

## C.212 Message PiAmenitiesList {Pi 2052}

### Use:

Provide a list of amenities for a specified group of stoppoints or transit facilities.

### Remarks:

This message may be used to provide changes to a previously obtained list using the update-since field.

### ASN1:

```
PiAmenitiesList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPLanguageList OPTIONAL,
    routes                SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    facilities             SEQUENCE (SIZE(1..500)) OF CPTTransitFacilityIden OPTIONAL,
    update-since          CPT-DateTime OPTIONAL,
    deleted-amenities     SEQUENCE (SIZE(1..25000)) OF PIAmenityIden OPTIONAL,
    amenities              SEQUENCE (SIZE(1..25000)) OF PIAmenity OPTIONAL
}
```

### The following dialogs use this message:

[Publish Amenities](#)

## C.213 Message PiAmenitiesListSub {Pi 2051}

### Use:

Request a list of amenities for a specified group of stoppoints or transit facilities.

### Remarks:

This message may be used to request changes to a previously obtained list using the update-since field. This message is used to elicit the PiAmenitiesList message.

### ASN1:

```
PiAmenitiesListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPLanguageList OPTIONAL,
    routes                SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    facilities             SEQUENCE (SIZE(1..500)) OF CPTTransitFacilityIden OPTIONAL,
    update-since          CPT-DateTime OPTIONAL
}
```

### The following dialogs use this message:

[Publish Amenities](#)

## C.214 Message PiAnnouncementsList {Pi 2085}

### Use:

Provide published announcements related to agencies, zones, routes, or stoppoints.

### Remarks:

The agency-ids, zones, stoppoint, and routes fields indicate the criteria for including announcements in the response to the query. If more than one of these fields are present, then only announcements that meet all of the criteria are included in the response. The agency-ids field indicates that announcements published by the listed agencies are included. The zones field indicates that announcements related to the specified zones are included in the response. The stoppoints field indicates that announcements related to the specified stoppoints are included in the response. The routes field indicates that announcements related to the specified routes are included in the response.

If the announcements field is absent, then no announcements met the query criteria.

### ASN1:

```
PiAnnouncementsList ::= SEQUENCE {
    header                  CPTSSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    agency-ids              SEQUENCE (SIZE(1..100)) OF CPT-AgencyID OPTIONAL,
    zones                   SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    stoppoints               SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
    routes                  SEQUENCE (SIZE(1..100)) OF SCHRRouteIden OPTIONAL,
    announcements            SEQUENCE (SIZE(1..10000)) OF PIAnnouncement OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Announcements](#)

**C.215 Message PiAnnouncementsListSub {Pi 2084}****Use:**

Request published announcements related to agencies, zones, routes, or stoppoints.

**Remarks:**

The agency-ids, zones, stoppoint, and routes fields indicate the criteria for including announcements in the response to the query. If more than one of these fields are present, then only announcements that meet all of the criteria are to be included in the response. The agency-ids field indicates that announcements published by the listed agencies are to be included. The zones field indicates that announcements related to the specified zones are to be included in the response. The stoppoints field indicates that announcements related to the specified stoppoints are to be included in the response. The routes field indicates that announcements related to the specified routes are to be included in the response.

**ASN1:**

```
PiAnnouncementsListSub ::= SEQUENCE {
    header                      CPTSubscriptionHeader,
    languages                   CPTLanguageList OPTIONAL,
    agency-ids                 SEQUENCE (SIZE(1..100)) OF CPT-AgencyID OPTIONAL,
    zones                       SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    stoppoints                  SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
    routes                      SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Announcements](#)

**C.216 Message PiDirections {Pi 2092}****Use:**

Provide directions between two designated locations to an authorized subscriber.

**Remarks:**

This message can provide a variety of directions. The int-directions field can include directions to interior or exterior locations in a variety of formats. The lrms-directions field provides directions in an SAE-defined format. The text-directions field allows directions to be transmitted as simple freeform text. The itinerary field allows a transit itinerary to be included with the directions.

**ASN1:**

```
PiDirections ::= SEQUENCE {
    subscriptionInfo           CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    from-geoloc                LRMS.GeoLocation OPTIONAL,
    from-indoor                SPInteriorLocation OPTIONAL,
    from-lm-name               PI-LandmarkName OPTIONAL,
    from-lm-id                 PI-LandmarkID OPTIONAL,
    from-Im-nameLangs          CPTAdditionalLanguageContents OPTIONAL,
    to-geoloc                  LRMS.GeoLocation OPTIONAL,
```

```
to-indoor          SPInteriorLocation OPTIONAL,
to-Im-name        PI-LandmarkName OPTIONAL,
to-IM-NameLangs   CPTAdditionalLanguageContents OPTIONAL,
to-Im-id          PI-LandmarkID OPTIONAL,
int-directions    SEQUENCE (SIZE(1..50)) OF SPIntDirection OPTIONAL,
atis-directions   SEQUENCE (SIZE(1..50)) OF ATIS.ManeuverInstruction OPTIONAL,
text-directions   CPT-Footnote OPTIONAL,
text-directionsLangs CPTAdditionalLanguageContents OPTIONAL,
itinerary         ATIS.Route OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Directions](#)

## **C.217 Message PiDirectionsSub {Pi 2091}**

**Use:**

Allow an authorized subscriber to request directions between two designated locations.

**Remarks:**

**ASN1:**

```
PiDirectionsSub ::= SEQUENCE {
  subscriptionInfo      CPTSubscriptionHeader,
  languages             CPTLanguageList OPTIONAL,
  from-geoloc           LRMS.GeoLocation OPTIONAL,
  from-indoor          SPInteriorLocation OPTIONAL,
  from-Im-name         PI-LandmarkName OPTIONAL,
  from-Im-id           PI-LandmarkID OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Directions](#)

## C.218 Message PiFoundItems {Pi 2058}

### Use:

Provide a list of found items that may match some specified lost items.

### Remarks:

#### ASN1:

```
PiFoundItems ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages                CPTLanguageList OPTIONAL,
    lost-items               SEQUENCE (SIZE(1..100)) OF PILostItem,
    found-items              SEQUENCE (SIZE(1..1000)) OF PIFoundItem OPTIONAL
}
```

The following dialogs use this message:

[Publish Found Items](#)

## C.219 Message PiFoundItemsSub {Pi 2057}

### Use:

Request a list of found items that may match some lost items.

### Remarks:

This message is used to elicit the PiFoundItems message.

#### ASN1:

```
PiFoundItemsSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages                CPTLanguageList OPTIONAL,
    lost-items               SEQUENCE (SIZE(1..100)) OF PILostItem
}
```

The following dialogs use this message:

[Publish Found Items](#)

## C.220 Message PiGTFSData {Pi 2099}

### Use:

Provide GTFS information.

### Remarks:

### ASN1:

```
PiGTFSData ::= SEQUENCE {
    header                               CPTSubscriptionHeader,
    languages                            CPLanguageList OPTIONAL,
    include-agencies                     SEQUENCE (SIZE(1..5)) OF CPT-AgencyID OPTIONAL,
    include-stoppoints                  SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
    include-routes                      SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    include-trips                       SEQUENCE (SIZE(1..100)) OF SCHTripIden OPTIONAL,
    agencies                             SEQUENCE (SIZE(1..5)) OF PIGTFSAgency OPTIONAL,
    stops                                SEQUENCE (SIZE(1..25000)) OF PIGTFSStops,
    routes                               SEQUENCE (SIZE(1..100)) OF PIGTFSRoutes,
    trips                                SEQUENCE (SIZE(1..1000)) OF PIGTFSTrips,
    stoptimes                           SEQUENCE (SIZE(1..500)) OF PIGTFSStopTimes,
    calendar                            SEQUENCE (SIZE(1..400)) OF PIGTFSCalendar,
    calendardates                      SEQUENCE (SIZE(1..400)) OF PIGTFSCalendarDates,
    fareAttributes                     SEQUENCE (SIZE(1..1000)) OF PIGTFSFareAttributes OPTIONAL,
    fareRules                            SEQUENCE (SIZE(1..1000)) OF PIGTFSFareRules OPTIONAL,
    shapes                               SEQUENCE (SIZE(1..200)) OF PIGTFSShapes OPTIONAL,
    frequencies                         SEQUENCE (SIZE(1..200)) OF PIGTFSFrequencies OPTIONAL,
    transfers                            SEQUENCE (SIZE(1..100)) OF PIGTFSTransfers OPTIONAL,
    feedInfo                            SEQUENCE (SIZE(1..10)) OF PIGTFSFeedInfo OPTIONAL
}
```

The following dialogs use this message:

[Publish GTFS Timetable Data](#)

## C.221 Message PiGTFSDataSub {Pi 2098}

### Use:

Request GTFS information.

### Remarks:

### ASN1:

```
PiGTFSDataSub ::= SEQUENCE {
    header                      CPTSubscriptionHeader,
    languages                   CPTLanguageList OPTIONAL,
    include-agencies            SEQUENCE (SIZE(1..5)) OF CPT-AgencyID OPTIONAL,
    include-stoppoints          SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
    include-routes              SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    include-trips               SEQUENCE (SIZE(1..1000)) OF SCHTripIden OPTIONAL
}
```

The following dialogs use this message:

[Publish GTFS Timetable Data](#)

## C.222 Message PiGTFSFile {PI 2097}

### Use:

Provides the GTFS files for schedule and associated geographic information.

### Remarks:

### ASN1:

```
PiGTFSFile ::= SEQUENCE {
    fileHeader                  CPTLoadFileHeader,
    agencies                    SEQUENCE (SIZE(1..5)) OF PIGTFSAgency,
    stops                       SEQUENCE (SIZE(1..25000)) OF PIGTFSStops,
    routes                      SEQUENCE (SIZE(1..100)) OF PIGTFSRoutes,
    trips                       SEQUENCE (SIZE(1..1000)) OF PIGTFSTrips,
    stopTimes                   SEQUENCE (SIZE(1..500)) OF PIGTFSStopTimes,
    calendar                    SEQUENCE (SIZE(1..400)) OF PIGTFSCalendar,
    calanderDates               SEQUENCE (SIZE(1..400)) OF PIGTFSCalendarDates,
    fareAttributes              SEQUENCE (SIZE(1..1000)) OF PIGTFSFareAttributes OPTIONAL,
    fareRules                    SEQUENCE (SIZE(1..1000)) OF PIGTFSFareRules OPTIONAL,
    shapes                      SEQUENCE (SIZE(1..200)) OF PIGTFSShapes OPTIONAL,
    frequencies                 SEQUENCE (SIZE(1..200)) OF PIGTFSFrequencies OPTIONAL,
    transfers                    SEQUENCE (SIZE(1..100)) OF PIGTFSTransfers OPTIONAL,
    feedInfo                     SEQUENCE (SIZE(1..10)) OF PIGTFSFeedInfo OPTIONAL
}
```

No dialogs were identified that use this message

## C.223 Message PiGateBayAssignmentList {Pi 2100}

### Use:

Conveys the gate/bay assignment of vehicles by stoppoint.

### Remarks:

Conveys the gate/bay assignment of vehicles by stoppoint.

### ASN1:

```
PiGateBayAssignmentList ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    stopppoints            SEQUENCE (SIZE(1..500)) OF CPTStoppointIden,
    gateBayAssignments     SEQUENCE (SIZE(1..500)) OF PIGateBayAssignment
}
```

### The following dialogs use this message:

[Publish Gate Bay Assignments](#)

## C.224 Message PiGateBayAssignmentListSub {Pi 2101}

### Use:

Request the gate/bay assignment of vehicles by stoppoint.

### Remarks:

This message is used to elicit the PiGateBayAssignmentList message.

### ASN1:

```
PiGateBayAssignmentListSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    stopppoints            SEQUENCE (SIZE(1..500)) OF CPTStoppointIden
}
```

### The following dialogs use this message:

[Publish Gate Bay Assignments](#)

## C.225 Message PiGeoZoneList {Pi 2089}

### Use:

Provide a list of geographical zone definitions.

### Remarks:

The points, polygon, agencies, and zones fields indicate the zones included in the response to the query. If more than one of these fields are present, then only zones that meet all of the criteria are included in the response. The points field indicates that any zone that contains any of the listed points is included in the response. The polygon field indicates that any zone that overlaps the polygon is included in the response. The agencies field indicates that all zones supported by any of the listed agencies is included in the response. The zones field indicates that listed zones are included in the response.

If the zone-defs field is absent, then no zones met the criteria specified in the query.

### ASN1:

```
PiGeoZoneList ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    points                 SEQUENCE (SIZE(1..20)) OF SPPoint OPTIONAL,
    polygon                SPPolygon OPTIONAL,
    agencies               SEQUENCE (SIZE(1..25)) OF CPT-AgencyID OPTIONAL,
    zones                  SEQUENCE (SIZE(1..1000)) OF PIGeoZoneIden OPTIONAL,
    zone-defs              SEQUENCE (SIZE(1..1000)) OF PIGeoZone OPTIONAL
}
```

The following dialogs use this message:

[Publish Geographic Zones](#)

## C.226 Message PiGeoZoneListSub {Pi 2088}

### Use:

Query for a list of geographical zone definitions.

### Remarks:

The points, polygon, agencies, and zones fields indicate the zones to be included in the response to the query. If more than one of these fields are present, then only zones that meet all of the criteria are included in the response. The points field is interpreted to mean any zone that contains any of the listed points is to be included in the response. The polygon field indicates that any zone that overlaps the polygon is to be included in the response. The agencies field indicates that all zones supported by any of the listed agencies is to be included in the response. The zones field indicates that listed zones are to be included in the response.

### ASN1:

```
PiGeoZoneListSub ::= SEQUENCE {
```

```
header          CPTSubscriptionHeader,  
languages      CPTLanguageList OPTIONAL,  
points         SEQUENCE (SIZE(1..20)) OF SPPoint OPTIONAL,  
polygon        SPPolygon OPTIONAL,  
agencies       SEQUENCE (SIZE(1..25)) OF CPT-AgencyID OPTIONAL,  
zones          SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL  
}
```

**The following dialogs use this message:**

[Publish Geographic Zones](#)

## C.227 Message PiItineraryFare {Pi 2070}

**Use:**

Provide the fare(s) associated with specified itinerary(ies).

**Remarks:**

This message conveys the fares in the returned itineraries, the processing application reads the itineraries provided in PiItineraryFareSub, adds the fare information & returns the itineraries in this message.  
Itineraries are defined by the SAE ATIS Standard

**ASN1:**

```
PiItineraryFare ::= SEQUENCE {  
    subscriptionInfo      CPTSubscriptionHeader,  
    languages            CPTLanguageList OPTIONAL,  
    itineraries          SEQUENCE (SIZE(1..50)) OF ATIS.Route  
}
```

**The following dialogs use this message:**

[Publish Itinerary Fare](#)

## C.228 Message PiItineraryFareSub {Pi 2069}

### Use:

Request the fare(s) associated with specified itinerary(ies).

### Remarks:

Each itinerary must have a unique identifier of type IM.ReferenceID to allow it to be associated with the fare in the reply. This message is used to elicit the PiItineraryFare message.

### ASN1:

```
PiItineraryFareSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    itinerarys           SEQUENCE (SIZE(1..50)) OF ATIS.Route
}
```

The following dialogs use this message:

[Publish Itinerary Fare](#)

## C.229 Message PiItineraryMap {Pi 2072}

### Use:

Provide the map(s) associated with specified itinerary(ies)

### Remarks:

The map contents, highlight-items, and highlight-classes fields are included only if they were included in the eliciting PiItineraryMapSub message. These fields are optionally used to request that the map(s) include specified content types, or that the map highlight specified features, or classes of features. Maps are correlated with corresponding itineraries by the reference id of type Im.ReferenceID. Itineraries may also contain URLs that point to the location of corresponding maps.

### ASN1:

```
PiItineraryMap ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    itinerarys           SEQUENCE (SIZE(1..50)) OF ATIS.Route,
    map-contents         SEQUENCE (SIZE(1..200)) OF CPT-FeatureType OPTIONAL,
    highlight-items       SEQUENCE (SIZE(1..50)) OF CPTGenericIden OPTIONAL,
    highlight-classes     SEQUENCE (SIZE(1..50)) OF CPT-FeatureType OPTIONAL,
    trip-maps            SEQUENCE (SIZE(1..50)) OF PIMap
}
```

The following dialogs use this message:

[Publish Itinerary Map](#)

## C.230 Message PiItineraryMapSub {Pi 2071}

### Use:

Request the map(s) associated with specified itinerary(ies).

### Remarks:

Each itinerary must have a unique identifier or type IM.ReferenceID to allow it to be associated with the map in the reply. The map contents, highlight-items, and highlight-classes fields are optionally used to request that the map(s) include specified content types, or that the map highlight specified features, or classes of features. This message is used to elicit the PiItineraryMap message.

### ASN1:

```
PiItineraryMapSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    itineraries                SEQUENCE (SIZE(1..50)) OF ATIS.Route,
    map-contents               SEQUENCE (SIZE(1..200)) OF CPT-FeatureType OPTIONAL,
    highlight-items            SEQUENCE (SIZE(1..50)) OF CPTGenericIden OPTIONAL,
    highlight-classes          SEQUENCE (SIZE(1..50)) OF CPT-FeatureType OPTIONAL
}
```

The following dialogs use this message:

[Publish Itinerary Map](#)

## C.231 Message PiLandmarksList {Pi 2041}

### Use:

Provide a list of landmarks.

### Remarks:

The subscriptionHeader, location, distance and landmarkTypes fields should be inherited from the PiLandmarkListSub message. If the landmarkList is left off of this message it implies that no landmarks met the criteria in the PiLandmarkListSub.

### ASN1:

```
PiLandmarksList ::= SEQUENCE {
    subscriptionHeader          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    location                   SPoint OPTIONAL,
    distance                   LRMS.Distance OPTIONAL,
    landmarkTypes              SEQUENCE (SIZE(1..15000)) OF PI-LandmarkType OPTIONAL,
    landmarkList                SEQUENCE (SIZE(1..15000)) OF PILandmark OPTIONAL
}
```

The following dialogs use this message:

[Publish Landmarks List](#)

## C.232 Message PiLandmarksListSub {Pi 2042}

### Use:

Request a list of landmarks.

### Remarks:

May be used by an end user device (e.g. kiosk, PDA) to obtain a list of nearby landmarks, or by an ATIS to load a landmarks list from an agency database. If the location and distance fields are absent, the list of all known landmarks is implied. If a landmark type list is present, only the specified type(s) of landmarks are requested. This message is used to elicit the PiLandmarksList message.

### ASN1:

```
PiLandmarksListSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages                CPTLanguageList OPTIONAL,
    location                  SPPoint OPTIONAL,
    distance                 LRMS.Distance OPTIONAL,
    landmarkTypes            SEQUENCE (SIZE(1..15000)) OF PI-LandmarkType OPTIONAL
}
```

The following dialogs use this message:

[Publish Landmarks List](#)

## C.233 Message PiLocationMap {Pi 2087}

### Use:

Provide a map for a location or list of locations.

### Remarks:

The stops or the points field indicates the location(s) for which maps are provided. The maps are provided in an ordered sequence so that the first map corresponds to the first stop or location listed. The distance field (if present) specifies that provided maps include the area surrounding the point out to the indicated distance. If the maps field is absent, then no available maps matched the request, and the location field shall match the original request..

### ASN1:

```
PiLocationMap ::= SEQUENCE {
    header      CPTSubscriptionHeader,
    languages   CPTLanguageList OPTIONAL,
    stops       SEQUENCE (SIZE(1..20)) OF CPTStoppointIden OPTIONAL,
    points      SEQUENCE (SIZE(1..20)) OF SPPoint OPTIONAL
}
```

The following dialogs use this message:

[Publish Location Map](#)

## C.234 Message PiLocationMapSub {Pi 2086}

### Use:

Request a map for a location or list of locations.

### Remarks:

The stops or the points field indicates the location(s) for which maps are to be provided. The distance field (if present) specifies that provided maps should include the area surrounding the point out to the indicated distance.

### ASN1:

```
PiLocationMapSub ::= SEQUENCE {
    header          CPTSubscriptionHeader,
    languages       CPTLanguageList OPTIONAL,
    stops           SEQUENCE (SIZE(1..20)) OF CPTStoppointIden,
    points          SEQUENCE (SIZE(1..20)) OF SPPPoint
}
```

**The following dialogs use this message:**

[Publish Location Map](#)

## C.235 Message PiMailingList {Pi 2047}

### Use:

Convey a list of materials available to be mailed to travelers.

### Remarks:

If the availableMaterials field is missing from this message it signifies that no mailing materials are available for the indicated routes. The subscriptionHeader and routes fields should be inherited from the PiMailingListSub message. If no routes are specified in the PiMailingsListSub message, all routes are implied.

### ASN1:

```
PiMailingList ::= SEQUENCE {
    subscriptionHeader   CPTSubscriptionHeader,
    languages           CPTLanguageList OPTIONAL,
    routes              SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    availableMailings   SEQUENCE (SIZE(1..2000)) OF PI-TravellerMailingMat OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Available Mailings](#)

## C.236 Message PiMailingListSub {Pi 2048}

### Use:

Request a list of materials available to be mailed to travelers.

### Remarks:

If the routes field is omitted, available materials for all routes are requested. This message is used to elicit the PiMailingList message.

### ASN1:

```
PiMailingListSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    routes                  SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Available Mailings](#)

## C.237 Message PiMailingResponse {Pi 2046}

### Use:

Notify a requester of the result of a PiSendMailing command message.

### Remarks:

The commandID must be inherited from the PiSendMailing message. If the mailing is rejected confirmationNum should be zero, otherwise a unique number should be provided. The reason field should be present if the confirmationNum is zero.

### ASN1:

```
PiMailingResponse ::= SEQUENCE {
    commandID              CPT-CommandID,
    confirmationNum         PI-MailingConfirmNum,
    reason                 PI-ReasonNotSent OPTIONAL
}
```

The following dialogs use this message:

[Command Send Mailing](#)

**C.238 Message PiNearestStopList {Pi 2003}****Use:**

Provide the identification of the nearest stop point(s) to a specified location meeting specified criteria.

**Remarks:**

Based on the selection criteria and the value of includeDistance in the original request, more than one stop may be provided. In the event that more than one stop is provided, they should be listed from closest to farthest from the specified location. Agency policy dictates whether weather maps, service bulletins etc are provided here and in each PINearestStop.

**ASN1:**

```
PiNearestStopList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    request              PINearestStopRequest,
    includeDistance      LRMS.Distance OPTIONAL,
    weather-text         CPT-Footnote OPTIONAL,
    weather-textLangs   CPTAdditionalLanguageContents OPTIONAL,
    area-map             PIMap OPTIONAL,
    stops                SEQUENCE (SIZE(1..20)) OF PINearestStop
}
```

**The following dialogs use this message:**

[Publish Nearest Stop List](#)

**C.239 Message PiNearestStopListSub {Pi 2002}****Use:**

Request the identification of the nearest stop point(s) to a specified location meeting specified criteria.

**Remarks:**

Request specifies the location, and, optionally, criterion that must be met for a stop point to be considered. The includeDistance field specifies a distance difference beyond which stoppoints should be ignored - that is to say that if the nearest stop meeting the criteria is a distance X from the specified location, and one or more other stops (also meeting the criteria) are within (X + includeDistance) of the location, those additional stops should be included in the response. If the includeDistance field is not present, only the closest stop meeting the criteria should be included. This message is used to elicit the PiNearestStopList message.

**ASN1:**

```
PiNearestStopListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    request              PINearestStopRequest,
    includeDistance      LRMS.Distance OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Nearest Stop List](#)

## C.240 Message PiPatternService {Pi 2095}

**Use:**

This message contains a list of Patterns and their associated PIPatternServiceEntries(which includes vehicles id,pattern id, distances along pattern, location, and schedule status)

**Remarks:**

**ASN1:**

```
PiPatternService ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    patterns             SEQUENCE (SIZE(1..250)) OF SCHPatternIden,
    entries              SEQUENCE (SIZE(1..250)) OF PIPATTERNServiceEntry
}
```

**The following dialogs use this message:**

[Publish Pattern Service](#)

## C.241 Message PiPatternServiceSub {Pi 2096}

**Use:**

This message is used to subscribe for PIPatternService for a list of Patterns

**Remarks:**

**ASN1:**

```
PiPatternServiceSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    patterns             SEQUENCE (SIZE(1..250)) OF SCHPatternIden
}
```

**The following dialogs use this message:**

[Publish Pattern Service](#)

## C.242 Message PiProfile {Pi 2066}

### Use:

Provide a customer profile, or a password reminder.

### Remarks:

Agency-specific security policies govern whether this message can be returned based on the PiProfileSub contents, and whether the result will contain a profile, and how much profile info is included.

### ASN1:

```
PiProfile ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    customer                PITravelerIden, -- zero if unknown
    customer-ssn            CPT-SSN OPTIONAL,
    customer-username       CPT-Footnote OPTIONAL,
    customer-usernameLangs CPTAdditionalLanguageContents OPTIONAL,
    customer-password        CPT-Footnote OPTIONAL,
    password-reminder       CPT-Footnote OPTIONAL, -- only if invalid/missing password
    current-profile          PICustomerProfile OPTIONAL
}
```

### The following dialogs use this message:

[Publish Customer Profile](#)

## C.243 Message PiProfileSub {Pi 2065}

### Use:

Query for a customer profile.

### Remarks:

This message is used to elicit the PiProfile message.

### ASN1:

```
PiProfileSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    customer                PITravelerIden, -- zero if unknown
    customer-ssn            CPT-SSN OPTIONAL,
    customer-username       CPT-Footnote OPTIONAL,
    customer-password        CPT-Footnote OPTIONAL
}
```

### The following dialogs use this message:

[Publish Customer Profile](#)

## C.244 Message PiPushAgencyFiles {Pi 2077}

### Use:

Allow an agency business system to push static files from one business system to another.

### Remarks:

### ASN1:

```
PiPushAgencyFiles ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    files                SEQUENCE (SIZE(1..5000)) OF PIAgencyStaticFile OPTIONAL
}
```

The following dialogs use this message:

[Push Agency Static Files](#)

## C.245 Message PiPushTextTimetable {Pi 2090}

### Use:

Provide published timetables on a nonsubscription basis.

### Remarks:

The legacy field and the legacyTables choice option are included to allow legacy format timetable information to be conveyed as an alternative using the same dialog as the current TCIP timetable definition. If the legacy field is true, the message conveys timetables in the legacy format, otherwise the message conveys the timetable(s) in the current TCIP format.

### ASN1:

```
PiPushTextTimetable ::= SEQUENCE {
    header              CPTPushHeader,
    languages           CPTLanguageList OPTIONAL,
    routes              SEQUENCE (SIZE(1..1000)) OF SCHRouteIden,
    legacy               CPT-Boolean,
    begin-time-date    CPT-DateTime,
    end-time-date       CPT-DateTime,
    notes               SEQUENCE (SIZE(1..1000)) OF SCHNoteInfo OPTIONAL, -- notes for
    all included timetables
    timepoints          SEQUENCE (SIZE(1..10000)) OF PITimetableTimepoint,
    timetables          SEQUENCE (SIZE(1..1000)) OF PIXMLTimetable
}
```

The following dialogs use this message:

[Push Text Timetable](#)

## C.246 Message PiReportAckProfileUpdate {Pi 2062}

### Use:

Acknowledge a request to update a customer's profile.

### Remarks:

The reason-not-accepted field is only present if the update was rejected by the receiver.

### ASN1:

```
PiReportAckProfileUpdate ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    time-submitted      CPT-DateTime,
    customer            PITravelerIden OPTIONAL,
    username             CPT-Footnote OPTIONAL,
    update-accepted     CPT-Boolean,
    reason-not-accepted CPT-Footnote OPTIONAL,
    reason-not-acceptedLangs CPTAdditionalLanguageContents OPTIONAL
}
```

### The following dialogs use this message:

[Report Update Customer Profile](#)

## C.247 Message PiReportFoundItems {Pi 2053}

### Use:

Provide a report of found items.

### Remarks:

Can be used to report a single found items, or a "batch" of items. Individual items may be reported without a report identifier assigned - if so the receiver assigns the numbers and reports them in the acknowledgement.

### ASN1:

```
PiReportFoundItems ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    time-sent           CPT-DateTime,
    reports              SEQUENCE (SIZE(1..500)) OF PIFoundItem
}
```

### The following dialogs use this message:

[Report Found Item](#)

## C.248 Message PiReportFoundItemsAck {Pi 2054}

### Use:

Acknowledge a report of found items.

### Remarks:

The report-ids field provides the unique identifiers for all acked reports. If the reporter did not assign #'s , the numbers are assigned by the receiver and transferred to the reporter in this message in the order of the original reports.

### ASN1:

```
PiReportFoundItemsAck ::= SEQUENCE {
    report-time           CPT-DateTime, -- from PiReportLostItems
    report-ids            SEQUENCE (SIZE(1..500)) OF PI-LostFoundItemID
}
```

**The following dialogs use this message:**

[Report Found Item](#)

## C.249 Message PiReportLostItems {Pi 2055}

### Use:

Provide a report of a lost item.

### Remarks:

Can be used to report a single lost times, or a "batch" of items. Individual items may be reported without a report identifier assigned - if so the receiver assigns the numbers and reports them in the acknowledgement.

### ASN1:

```
PiReportLostItems ::= SEQUENCE {
    languages          CPTLanguageList OPTIONAL,
    time-sent          CPT-DateTime,
    reports            SEQUENCE (SIZE(1..500)) OF PILostItem
}
```

**The following dialogs use this message:**

[Report Lost Item](#)

## C.250 Message PiReportLostItemsAck {Pi 2056}

### Use:

Acknowledge a report of lost items.

### Remarks:

The report-ids field provides a unique identifiers for all acked reports. If the reporter did not assign #'s the numbers are assigned by the receiver and transferred to the reporter in this message in the order of the original reports.

### ASN1:

```
PiReportLostItemsAck ::= SEQUENCE {
    report-time           CPT-DateTime, -- from PiReportLostItems
    report-ids            SEQUENCE (SIZE(1..500)) OF PI-LostFoundItemID
}
```

The following dialogs use this message:

[Report Lost Item](#)

## C.251 Message PiReportNewProfile {Pi 2063}

### Use:

Define a customer profile.

### Remarks:

Profile is submitted with a customer number of zero.

### ASN1:

```
PiReportNewProfile ::= SEQUENCE {
    languages              CPTLanguageList OPTIONAL,
    time-submitted         CPT-DateTime,
    profile                PICustomerProfile
}
```

The following dialogs use this message:

[Report New Customer Profile](#)

## C.252 Message PiReportProfileUpdate {Pi 2061}

### Use:

Update an existing customer profile in the database.

### Remarks:

Only the fields to be updated, and the customer number are required in the profile field however, agencies may require the password as well.

### ASN1:

```
PiReportProfileUpdate ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    time-submitted     CPT-Datetime,
    profile             PICustomerProfile
}
```

The following dialogs use this message:

[Report Update Customer Profile](#)

## C.253 Message PiReportSubscriptionUpdate {Pi 2059}

### Use:

Update a customers subscription information.

### Remarks:

### ASN1:

```
PiReportSubscriptionUpdate ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    time-submitted     CPT-Datetime,
    customer            PITravelerIden OPTIONAL,
    password            CPT-Footnote OPTIONAL,
    username            CPT-Footnote OPTIONAL,
    deleted-subscriptions SEQUENCE (SIZE(1..20)) OF PICustSubscription OPTIONAL,
    added-subscriptions SEQUENCE (SIZE(1..20)) OF PICustSubscription OPTIONAL,
    modified-subscriptions SEQUENCE (SIZE(1..20)) OF PICustSubscription OPTIONAL
}
```

The following dialogs use this message:

[Report Update Customer Subscription](#)

## C.254 Message PiRouteList {Pi 2083}

### Use:

Provide general information about a transit route or list of transit routes.

### Remarks:

The 'include' fields indicate what information is included about the routes in the response (if available)..

### ASN1:

```
PiRouteList ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    routes                  SEQUENCE (SIZE(1..200)) OF SCHRouteIden OPTIONAL,
    include-map              CPT-Boolean,
    include-access            CPT-Boolean,
    include-stops             CPT-Boolean,
    include-files              CPT-Boolean,
    include-announcements      CPT-Boolean,
    include-timetables          CPT-Boolean,
    results                  SEQUENCE (SIZE(1..200)) OF PIRouteInfo
}
```

### The following dialogs use this message:

[Publish Route Information](#)

## C.255 Message PiRouteListSub {Pi 2082}

### Use:

Request general information about a transit route or list of transit routes.

### Remarks:

The 'include' fields indicate what information should be included about the routes in the response.

### ASN1:

```
PiRouteListSub ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    routes                  SEQUENCE (SIZE(1..200)) OF SCHRouteIden OPTIONAL,
    include-map              CPT-Boolean,
    include-access            CPT-Boolean,
    include-stops             CPT-Boolean,
    include-files              CPT-Boolean,
    include-announcements      CPT-Boolean,
    include-timetables          CPT-Boolean
}
```

### The following dialogs use this message:

[Publish Route Information](#)

## C.256 Message PiSendMailing {Pi 2045}

### Use:

Instructs a server to send a mailing (printed materials) to a transit customer.

### Remarks:

The sender must assign a unique command ID. The mailingRequest must contain the travelerID, nameLast, and mailer fields. The mailingRequest must contain either travelerHomeAddress or travelerWorkAddress.

### ASN1:

```
PiSendMailing ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    commandID          CPT-CommandID,
    mailingRequest      PITravelerProfile
}
```

**The following dialogs use this message:**

[Command Send Mailing](#)

## C.257 Message PiServiceBulletinsList {Pi 2043}

### Use:

Provide the service bulletins in effect for specified route(s). Service bulletins are used to specify temporary changes to service (e.g. detours disruptions).

### Remarks:

The subscription header and route list should be inherited from the PiServiceBulletinsListSub message. If no bulletins are listed in this message, it indicates no bulletins are in effect for the indicated routes.

### ASN1:

```
PiServiceBulletinsList ::= SEQUENCE {
    subscriptionHeader   CPTSSubscriptionHeader,
    languages           CPTLanguageList OPTIONAL,
    routes              SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    stops               SEQUENCE (SIZE(1..500)) OF CPTStoppointIden OPTIONAL,
    trips               SEQUENCE (SIZE(1..5000)) OF SCHTripIden OPTIONAL,
    bulletins           SEQUENCE (SIZE(1..500)) OF PIServiceBulletin OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Service Bulletin List](#)

**C.258 Message PiServiceBulletinsListSub {Pi 2044}****Use:**

Request the service bulletins in effect for specified route(s). Service bulletins are used to specify temporary changes to service (e.g. detours, disruptions).

**Remarks:**

This message is used to elicit the PiServiceBulletinsList message.

**ASN1:**

```
PiServiceBulletinsListSub ::= SEQUENCE {
    subscriptionHeader      CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    routes                  SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    trips                   SEQUENCE (SIZE(1..5000)) OF SCHTripIden OPTIONAL,
    stops                   SEQUENCE (SIZE(1..500)) OF CPTStoppointIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Service Bulletin List](#)

**C.259 Message PiServiceList {Pi 2081}****Use:**

To provide a list of transit service routes available meeting specified criteria. This message does not include details about each route, only the identifiers and modes.

**Remarks:**

The agency-ids, zones, stoppoint, polygon, point-location, and distance fields indicate the criteria for including transit routes in the response to the query. If more than one of these fields are present, then only routes that meet all of the criteria are included in the response. The agency-ids field indicates that routes operated by the listed agencies are included. The zones field indicates that routes passing through the listed zones are included in the response. The stoppoints field indicates that routes servicing the specified stoppoints are included in the response. The polygon field indicates that any route that passes through the polygon is included in the response. The point-location and distance fields are used together to indicate that routes passing within the specified distance of the specified point are included in the response. The modes field indicates that only the modes listed are included in the response.

The services field provides the list of services meeting the specified criteria in the query. If not present, no services met the specified criteria.

**ASN1:**

```
PiServiceList ::= SEQUENCE {
    header          CPTSubscriptionHeader,
    languages       CPTLanguageList OPTIONAL,
    agency-ids     SEQUENCE (SIZE(1..100)) OF CPT-AgencyID OPTIONAL,
    zones          SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
    stoppoints     SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
```

```

polygon           SPPolygon OPTIONAL,
point-location   SPPoint OPTIONAL,
distance         LRMS.Distance OPTIONAL,
modes            SEQUENCE (SIZE(1..10)) OF CPT-Mode OPTIONAL,
services          SEQUENCE (SIZE(1..10000)) OF PiService OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Service Types](#)

## C.260 Message PiServiceListSub {Pi 2080}

### Use:

To request a list of transit service routes available meeting specified criteria. This query does not elicit details about each route, only the identifiers and modes.

### Remarks:

The agency-ids, zones, stoppoint, polygon, point-location, and distance fields indicate the criteria for including transit routes in the response to the query. If more than one of these fields are present, then only routes that meet all of the criteria are to be included in the response. The agency-ids field indicates that routes operated by the listed agencies are to be included. The zones field indicates that routes passing through the listed zones are to be included in the response. The stoppoints field indicates that routes servicing the specified stoppoints are to be included in the response. The polygon field indicates that any route that passes through the polygon is to be included in the response. The point-location and distance fields are used together to indicate that routes passing within the specified distance of the specified point are to be included in the response. The modes field indicates that only the modes listed are to be included in the response.

### ASN1:

```

PiServiceListSub ::= SEQUENCE {
  header           CPTSubscriptionHeader,
  languages        CPTLanguageList OPTIONAL,
  agency-ids       SEQUENCE (SIZE(1..100)) OF CPT-AgencyID OPTIONAL,
  zones            SEQUENCE (SIZE(1..100)) OF PIGeoZoneIden OPTIONAL,
  stoppoints       SEQUENCE (SIZE(1..100)) OF CPTStoppointIden OPTIONAL,
  polygon          SPPolygon OPTIONAL,
  point-location   SPPoint OPTIONAL,
  distance         LRMS.Distance OPTIONAL,
  modes            SEQUENCE (SIZE(1..10)) OF CPT-Mode OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Service Types](#)

**C.261 Message PiServiceStatus {Pi 2007}****Use:**

Provide information about the real-time status of service at a transit stop or group of transit stops.

**Remarks:**

The requests field may contain requests of any or all types (range, countdown, or offSched). The corresponding responses are returned in separate fields based on their separate formats. The server may not include the responses within a field in any particular order. The time provided field indicates the time at which the server generated the response. This allows perishable real-time information to be discarded by the client if its (manufacturer-defined) internal algorithm determines the information is too old to use. The server may include multiple responses for the same stoppoint, route, and direction to provide information on the next few vehicles providing the requested service (local agency decision). This message is intended primarily for use by a CAD/AVL system to provide a near real-time service information to a TRV or CSS for further distribution to customers based on agency policies.

**ASN1:**

```
PiServiceStatus ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    requests                   SEQUENCE (SIZE(1..100)) OF PiServiceStatusRequest,
    timeProvided              CPT-Time,
    rangeResponses             SEQUENCE (SIZE(1..100)) OF PISchedAdherenceRange OPTIONAL,
    countdownResponses         SEQUENCE (SIZE(1..100)) OF PISchedAdherenceCountdown OPTIONAL,
    offSchedResponses          SEQUENCE (SIZE(1..100)) OF PISchedAdherenceOffSched OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Service Status](#)

**C.262 Message PiServiceStatusSub {Pi 2006}****Use:**

Request information about the real-time status of service at a transit stop or group of transit stops.

**Remarks:**

This message is intended for queries from individual user devices or from ATIS. In the case of an ATIS source, this message supports the ability for an ATIS to buffer requests from multiple users (e.g. over a 2 second period) and to send out a single message containing multiple requests. This approach reduces the load imposed on the real-time information server (e.g. AVL system) in two ways: first duplicate requests from different users can be filtered by the ATIS, and second the server receives fewer PiServiceStatusSub messages to process. This message is used to elicit the PiServiceStatus message.

**ASN1:**

```
PiServiceStatusSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    requests                   SEQUENCE (SIZE(1..100)) OF PiServiceStatusRequest
```

}

**The following dialogs use this message:**

[Publish Service Status](#)

## C.263 Message PiStopPointETA {Pi 2049}

**Use:**

Provide ongoing bus arrival estimates for a designated stop point or group of stop points.

**Remarks:**

The primary purpose of this message is to provide a real-time data feed from the CAD/AVL system to support bus arrival signs at stoppoints. The stoppoints field is optional as the stoppoint identifier for each arrival estimate is present in the arrival-estimates field. The stoppoints listed in the query may not all be reflected in each response to the query, as some previous arrival estimates may not have updates. Additionally, some stoppoints may have more than one arrival-estimate entry present representing more than one PTV bound for that stoppoint.

**ASN1:**

```
PiStopPointETA ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    arrival-estimates     SEQUENCE (SIZE(1..25000)) OF PISchedAdherenceCountdown OPTIONAL
-- Omit field if no estimates are available
}
```

**The following dialogs use this message:**

[Publish Stop Point ETA](#)

## C.264 Message PiStopPointETASub {Pi 2050}

### Use:

Request ongoing bus arrival estimates for a designated stop point or group of stop points.

### Remarks:

This message is used to elicit the PiStopPointETA message.

### ASN1:

```
PiStopPointETASub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL
}
```

### The following dialogs use this message:

[Publish Stop Point ETA](#)

## C.265 Message PiStoppointParking {Pi 2005}

### Use:

Provide information about a specified parking facility, or facilities, associated with a transit stop point or in the vicinity of a specified location.,,

### Remarks:

The parkingFacID, stopID, location and/or distance field(s) should mirror the field(s) present in the eliciting PiStoppointParkingSub message. If the parkingFacID field is used and no information about the facility is available (or the facility does not exist), then the parkingInfosets field shall be omitted, otherwise parkingInfosets describes the facility identified in parkingFacID. If the stopID field is present in the PiStoppointParkingSub message and there are multiple parking facilities associated with the stop then the parkingInfosets field shall contain information about each facility. If the stopID field is present and no parking facility information is available or there are no parking facilities associated with the stop, then the parkingInfosets field shall be omitted. If the location field is present along with the distance field, and there are parking facilities within distance of location, then those facilities shall be listed, otherwise the parkingInfosets field shall be omitted. If the distance field is not present, then the publisher shall used a locally configured default value for distance.

### ASN1:

```
PiStoppointParking ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    parkingFacID          PI-ParkingFacID OPTIONAL,
    stoppoint              CPTStoppointIden OPTIONAL,
    location               LRMS.GeoLocation OPTIONAL
}
```

### The following dialogs use this message:

[Publish Stoppoint Parking](#)

## C.266 Message PiStoppointParkingSub {Pi 2004}

### Use:

Request information about a specified parking facility or facilities associated with a transit stop point or a specified location. The elicited message is PiStoppointParking.

### Remarks:

Any of parkingFacID, stopID, or location may be present, if parkingFacID is used, the request is for information about the specified facility. If stopID is used, the request is for information about all parking facilities associated with the specified stop point. If location is used it indicates a location for which nearby parking is sought.

The subscriber may determine the identifiers for the stop point and/or the parking lot of interest using the PublishStoppointList dialog or the PublishNearestStopList dialog, prior to initiating this dialog. This message is used to elicit the PiStoppointParking message.

### ASN1:

```
PiStoppointParkingSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    parkingFacID          PI-ParkingFacID OPTIONAL,
    stoppoint              CPTStoppointIden OPTIONAL,
    location               LRMS.GeoLocation OPTIONAL
}
```

### The following dialogs use this message:

[Publish Stoppoint Parking](#)

## C.267 Message PiStoppointPatterns {Pi 2093}

### Use:

This message contains a list of stoppoints and their associated patterns. This is intended to be used as the static data that works with PiPatternService to generate schematic maps on Passenger Information displays.

### Remarks:

The stoppoints field specifies the list of stoppoints for which information is provided.

### ASN1:

```
PiStoppointPatterns ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
```

```

languages           CPTLanguageList OPTIONAL,
stoppoints        SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
routeEntries      SEQUENCE (SIZE(1..80000)) OF PIStopPatternRouteEntry OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Stoppoint Patterns](#)

## C.268 Message PiStoppointPatternsSub {Pi 2094}

**Use:**

This message is used to subscribe for PIStoppoint Patterns for a list of Stoppoints. With a boolean to only include timepoints for each stoppoint.

**Remarks:**

**ASN1:**

```

PiStoppointPatternsSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden,
    timepointsOnly        CPT-Boolean
}

```

**The following dialogs use this message:**

[Publish Stoppoint Patterns](#)

## C.269 Message PiTextTimetable {Pi 2009}

**Use:**

Provide published timetables.

**Remarks:**

The legacy field and the legacyTables choice option are included to allow legacy timetable information to be conveyed as an alternative using the same dialog as the current TCIP timetable definition. If the legacy field is true, the message conveys timetables in the legacy format, otherwise the message conveys the timetable(s) in the current TCIP format. .

**ASN1:**

```

PiTextTimetable ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    routes                SEQUENCE (SIZE(1..1000)) OF SCHRouteIden,
    legacy                CPT-Boolean,
    begin-time-date       CPT-DateTime,
}

```

```
end-time-date           CPT-DateTime,  
notes                  SEQUENCE (SIZE(1..1000)) OF SCHNoteInfo OPTIONAL, -- notes for  
all included timetables  
timepoints             SEQUENCE (SIZE(1..10000)) OF PITimetableTimepoint,  
timetables              SEQUENCE (SIZE(1..1000)) OF PIXMLTimetable  
}
```

The following dialogs use this message:

[Publish Text Timetable](#)

## C.270 Message PiTextTimetableSub {Pi 2008}

**Use:**

Request published timetables.

**Remarks:**

The legacy field allows timetables to be requested in a legacy format based on TCIP 1-defined data structures. If the legacy field is true, the timetable(s) are requested in the legacy format, if false the timetable(s) are requested in the current TCIP format. This message is used to elicit the PiTextTimetable message.

**ASN1:**

```
PiTextTimetableSub ::= SEQUENCE {  
    subscriptionInfo      CPTSubscriptionHeader,  
    languages             CPTLanguageList OPTIONAL,  
    routes                SEQUENCE (SIZE(1..1000)) OF SCHRoutelen,  
    legacy                CPT-Boolean,  
    begin-time-date       CPT-DateTime,  
    end-time-date         CPT-DateTime,  
    print-version          CPT-Boolean,  
    date                  CPT-Date  
}
```

The following dialogs use this message:

[Publish Text Timetable](#)

## C.271 Message PiTripItineraryList {Pi 2001}

### Use:

Provide a trip itinerary from an ATIS to a subscriber. The subscriber may be another ATIS or an end-user device (e.g. kiosk).

### Remarks:

If the message contains no alternatives, then the request was valid, but no available service met the tripRequest criteria, if only one alternative is provided, that was the only option for meeting the tripRequest criteria. If multiple alternatives are provided, they all met the tripRequest criteria. Recommend putting the most desirable alternative (if known) first and other alternatives following in order of decreasing desirability (if known). Desirability criteria are server/ATIS manufacturer defined. Weather, event information etc, may be included in the returned itinerary.

The returnAlternatives field should be present only if there was a returnRequest in the trip-request. If the weatherReports, links, or events fields are present, they apply to all itineraries on the list. If these items are unique to different itineraries, they may be specified within the individual PiTripItinerary data frames contained in the alternatives and returnAlternatives fields.

### ASN1:

```
PiTripItineraryList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    trip-request         PiTripRequest,
    alternatives         SEQUENCE (SIZE(1..10)) OF ATIS.Route OPTIONAL,
    returnAlternatives   SEQUENCE (SIZE(1..10)) OF ATIS.Route OPTIONAL
}
```

### The following dialogs use this message:

[Publish Trip Itinerary List](#)

## C.272 Message PiTripItineraryListSub {Pi 2000}

### Use:

Request a trip itinerary from an ATIS. Request may originate from another ATIS or from an end user device (e.g. kiosk).

### Remarks:

This message is used to elicit the PiTripItineraryList message.

### ASN1:

```
PiTripItineraryListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    trip-request         PiTripRequest
}
```

### The following dialogs use this message:

[Publish Trip Itinerary List](#)

### C.273 Message SchActualRunningTimes {Sch 2052}

**Use:**

Provide the measured running times in service.

**Remarks:**

The earliest, latest, routes, patterns, trips and timepoints fields are used to specify the filter(s) used to determine what running times to return.

**ASN1:**

```
SchActualRunningTimes ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    earliest              CPT-DateTime OPTIONAL,
    latest                CPT-DateTime OPTIONAL,
    routes                SEQUENCE (SIZE(1..1000)) OF SCHRouteIden OPTIONAL,
    patterns              SEQUENCE (SIZE(1..100)) OF SCHPatternIden OPTIONAL,
    timepoints            SEQUENCE (SIZE(1..1000)) OF SCHTimepointIden OPTIONAL,
    trips                 SEQUENCE (SIZE(1..1000)) OF SCHTripIden OPTIONAL,
    records               SEQUENCE (SIZE(1..100000)) OF SCHActualRunningTimeData OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Actual Running Times](#)

### C.274 Message SchActualRunningTimesSub {Sch 2053}

**Use:**

Request actual in-service running times.

**Remarks:**

The earliest, latest, routes, patterns, trips and timepoints fields are used to specify the filter(s) used to determine what running times to return. This message is used to elicit the SchActualRunningTimes message.

**ASN1:**

```
SchActualRunningTimesSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    earliest              CPT-DateTime OPTIONAL,
    latest                CPT-DateTime OPTIONAL,
    routes                SEQUENCE (SIZE(1..1000)) OF SCHRouteIden OPTIONAL,
    patterns              SEQUENCE (SIZE(1..100)) OF SCHPatternIden OPTIONAL,
    timepoints            SEQUENCE (SIZE(1..1000)) OF SCHTimepointIden OPTIONAL,
    trips                 SEQUENCE (SIZE(1..1000)) OF SCHTripIden OPTIONAL
```

}

**The following dialogs use this message:**

[Publish Actual Running Times](#)

## C.275 Message SchBlockScheduleFile {Sch 2066}

**Use:**

Provide scheduled trips by block for loading to a vehicle.

**Remarks:**

The sched-blocks field conveys the scheduled-blocks, or the updated blocks in the case of a row update. The deleted-blocks field is only used with row updates.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

**ASN1:**

```
SchBlockScheduleFile ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    sched-blocks        SEQUENCE (SIZE(1..25000)) OF SCHBlockScheduleEntry OPTIONAL,
    deleted-blocks     SEQUENCE (SIZE(1..25000)) OF SCHBlockIden OPTIONAL,
    notes               SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges      SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ...    -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Load Schedule](#)

## C.276 Message SchBlockScheduleList {Sch 2064}

### Use:

Provide the scheduled trips for a block (vehicle assignment) or group of blocks.

### Remarks:

The sched-blocks field conveys the scheduled-blocks, or the updated blocks in the case of a row update. The deleted-blocks field is only used with row updates.

The updates-since field is present only for row update messages. The specific-blocks field and/or specific-garages field are present only if included in the eliciting SCHBlockListSub message.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

### ASN1:

```
SchBlockScheduleList ::= SEQUENCE {
    subscriptionInfo          CPTSsubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    effective                 CPT-Datetime,
    specific-garages          SEQUENCE (SIZE(1..10)) OF CPTTransitFacilityIden OPTIONAL,
    specific-blocks            SEQUENCE (SIZE(1..25000)) OF SCHblockIden OPTIONAL,
    update-since               CPT-Datetime OPTIONAL,
    sched-blocks               SEQUENCE (SIZE(1..25000)) OF SCHBlockScheduleEntry OPTIONAL,
    deleted-blocks             SEQUENCE (SIZE(1..25000)) OF SCHblockIden OPTIONAL,
    notes                      SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges              SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Publish Block Schedule](#)

**C.277 Message SchBlockScheduleListSub {Sch 2065}****Use:**

Request the scheduled trips for a block (vehicle assignment), group of blocks, or all blocks.

**Remarks:**

If the effective field is present, the request is for the specific schedule or updates to the specific schedule with the specified effective date time. If the update-since field is present, the request is for updates since the indicated date time. If the specific-blocks field is absent, the request is for all blocks. If the specific-garages field is present, the request is for information only on blocks associated with the listed facilities. If the specific-garages field is absent the request is for information blocks associated with all garages.

**ASN1:**

```
SchBlockScheduleListSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    effective                 CPT-DateTime OPTIONAL,
    specific-garages          SEQUENCE (SIZE(1..10)) OF CPTTransitFacilityIden OPTIONAL,
    specific-blocks           SEQUENCE (SIZE(1..25000)) OF SCHBlockIden OPTIONAL,
    update-since              CPT-DateTime OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Block Schedule](#)

**C.278 Message SchBlockSubsets {Sch 2057}****Use:**

Define a group of blocks (vehicle assignments). Blocks in a group share an arbitrary attribute such as routes serviced, origin garage, etc. Group definitions may or may not overlap.

**Remarks:**

Receipt of a group definition with the same group id as a previously received group definition implies the old definition should be overwritten. If the updates-since field is present, this message only contains changes to group definitions since the indicated datetime.

**ASN1:**

```
SchBlockSubsets ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    updates-since              CPT-DateTime OPTIONAL,
    defined-groups            SEQUENCE (SIZE(1..30000)) OF SCHBlockSubsetsGroup OPTIONAL,
    deleted-groups            SEQUENCE (SIZE(1..30000)) OF SCH-BlockSubset OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Block Subset Definitions](#)

## C.279 Message SchBlockSubsetsSub {Sch 2058}

### Use:

Request the definitions for agency-defined block (vehicle assignment) groups.

### Remarks:

If the updates-since field is present, only updates to groups since the indicated datetime are requested. This message is used to elicit the SchBlockSubsets message.

### ASN1:

```
SchBlockSubsetsSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    updates-since         CPT-DateTime OPTIONAL
}
```

### The following dialogs use this message:

[Publish Block Subset Definitions](#)

## C.280 Message SchCalendar {Sch 2048}

### Use:

Deliver a calendar that defines day types for each day in a time period.

### Remarks:

Calendars are not row-updatable. Any new calendar must supersede previous calendars with overlapping date ranges.

### ASN1:

```
SchCalendar ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    begin-date            CPT-Date,
    end-date              CPT-Date,
    day-definitions       SEQUENCE (SIZE(1..400)) OF SCHCalendarEntry
}
```

### The following dialogs use this message:

[Publish Calendar](#)

## C.281 Message SchCalendarFile {Sch 2049}

### Use:

Deliver a calendar that defines day types for each day in a time period.

### Remarks:

Calendars are not row-updatable. Any new calendar must supersede previous calendars with overlapping date ranges.

### ASN1:

```
SchCalendarFile ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    day-definitions     SEQUENCE (SIZE(1..400)) OF SCHCalendarEntry
}
```

### The following dialogs use this message:

[Load Schedule](#)

## C.282 Message SchCalendarSub {Sch 2047}

### Use:

Deliver a calendar that defines day types for each day in a time period.

### Remarks:

Calendars are not row-updatable. Any new calendar must supersede previous calendars with overlapping date range. This message is used to elicit the SchCalendar message.

### ASN1:

```
SchCalendarSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    begin-date            CPT-Date,
    end-date              CPT-Date
}
```

### The following dialogs use this message:

[Publish Calendar](#)

**C.283 Message SchCommandScheduleChange {Sch 2068}****Use:**

Command an entity to make changes to the schedule. This allows information about schedule changes due to special events or emergencies to be conveyed.

**Remarks:**

The added patterns and added segments fields should only be present if trips are added that use patterns and/or pattern segments that are not included in the base schedule.

**ASN1:**

```
SchCommandScheduleChange ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    commandID                 CPT-CommandID,
    reason                     CPT-Footnote,
    issuedTime                CPT-DateTime,
    MetaData                   CPTRowMetaData, -- defines the applicable period for the command
    addedBlocks                SEQUENCE (SIZE(1..500)) OF SCHBlockScheduleEntry OPTIONAL,
    addedTrips                 SEQUENCE (SIZE(1..2000)) OF SCHTripInfo OPTIONAL,
    deletedTrips               SEQUENCE (SIZE(1..2000)) OF SCHTripIden OPTIONAL,
    addedPatterns              SEQUENCE (SIZE(1..25)) OF SCHPatternInfo OPTIONAL,
    addedSegments              SEQUENCE (SIZE(1..1000)) OF SCHPatternSegment OPTIONAL,
    addedStops                 SEQUENCE (SIZE(1..1000)) OF CPTStoppoint OPTIONAL,
    addedTimepoints            SEQUENCE (SIZE(1..500)) OF SCHTimepointInfo OPTIONAL
}
```

**The following dialogs use this message:**

[Command Schedule Change](#)

**C.284 Message SchCommandScheduleChangeResponse {Sch 2069}****Use:**

Respond to Sch Command Schedule Change message.

**Remarks:**

The response field contains the reason the command was rejected, and is only present if the change Accepted field is false.

**ASN1:**

```
SchCommandScheduleChangeResponse ::= SEQUENCE {
    languages                  CPTLanguageList OPTIONAL,
    commandID                 CPT-CommandID, -- from original message
    issuedTime                CPT-DateTime, -- from original message
    changeAccepted             CPT-Boolean,
    reason                     CPT-Footnote OPTIONAL
}
```

**The following dialogs use this message:**

[Command\\_Schedule\\_Change](#)**C.285 Message SchEventChangeFile {Sch 2067}****Use:**

Provides Event changes to in the Pattern File and Block Schedule File.

**Remarks:**

This message allows event changes to be made without having to resend the pattern message and block schedule message every time there is a change to an event. The events field specifies which events have been added/updated and the patterns, segments, and/or trips that are affected. The deletePatternEvents, deleteSegmentEvents, and deleteTripEvents fields are used to specify the events that should be removed from patterns, segments, or trips, respectively.

The announcements field conveys any event announcements that have been added or updated in the Announcement Info File. The deleteAnnouncements field conveys the event announcements that should be removed from the CcAnnouncementInfo, PiAnnouncementsList received previously.

The consistChanges field conveys any consist events that have been added or updated in the SchBlockScheduleFile, SchBlockScheduleList, and/or SchPushBlockSchedule; otherwise found in the SchPatternFile, SchPatternList, and/or SchPushPattern. The deleteConsistChanges field conveys the consist events that should be removed from the SchBlockScheduleFile, SchBlockScheduleList, and/or SchPushBlockSchedule; and/or the SchPatternFile, SchPatternList, and/or SchPushPattern.

**ASN1:**

```
SchEventChangeFile ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    events              SCHEventChange,
    deletePatternEvents SEQUENCE (SIZE(1..2000)) OF SCHEventIden OPTIONAL,
    deleteSegmentEvents SEQUENCE (SIZE(1..2000)) OF SCHEventIden OPTIONAL,
    deleteTripEvents   SEQUENCE (SIZE(1..25000)) OF SCHEventIden OPTIONAL,
    announcements       SEQUENCE (SIZE(1..10000)) OF PIEventAnnouncement OPTIONAL,
    deleteAnnouncements SEQUENCE (SIZE(1..10000)) OF SCHAActivationIden OPTIONAL,
    consistChanges      SEQUENCE (SIZE(1..10000)) OF SCHConsistChangeEvent OPTIONAL,
    deleteConsistChanges SEQUENCE (SIZE(1..10000)) OF SCHAActivationIden OPTIONAL
}
```

**The following dialogs use this message:**

[Load Schedule](#)

## C.286 Message SchMasterScheduleVersion {Sch 2001}

### Use:

Identify the version numbers of schedule related artifacts.

### Remarks:

1. The begin and end fields indicate the effective period of interest for which schedule information is requested
2. The routes or agencies field whichever is present indicates the list of agencies or routes for which schedule version information is provided.
3. If the route-versions field is absent, it implies no schedule version information was available for the criteria in the query.

### ASN1:

```
SchMasterScheduleVersion ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    begin                      CPT-DateTime OPTIONAL,
    end                        CPT-DateTime OPTIONAL,
    agencies                   SEQUENCE (SIZE(1..20)) OF CPT-AgencyID OPTIONAL,
    routes                     SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Master Schedule Version](#)

## C.287 Message SchMasterScheduleVersionSub {Sch 2000}

### Use:

Request or cancel a subscription to the versions of schedule information in effect for specified dates and routes from the scheduling system. This elicits the version information about the schedules, not the schedule itself. A subscriber can use the version information to determine what artifacts it needs to obtain.

The elicited message is SchMasterScheduleVersion.

### Remarks:

Subscription type should be Query, Event, or Cancel. Periodic should not be used.

Agencies, if present indicates that schedule validity information for all routes for the indicated agencies. Routes, if present, indicates specific routes the subscriber is interested in.

The begin and end fields indicate the effective period of interest for which schedule information is requested. If absent the request is for all available version information for the indicated agencies/routes.

### ASN1:

```
SchMasterScheduleVersionSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
```

```
languages          CPTLanguageList OPTIONAL,  
begin             CPT-DateTime OPTIONAL,  
end               CPT-DateTime OPTIONAL,  
agencies          SEQUENCE (SIZE(1..20)) OF CPT-AgencyID,  
routes            SEQUENCE (SIZE(1..100)) OF SCHRouteIden  
}
```

**The following dialogs use this message:**

[Publish Master Schedule Version](#)

## C.288 Message SchOperatorAssignmentFile {Sch 2036}

### Use:

Provide a list of bound or unbound operator assignments (runs) for load to a vehicle

### Remarks:

The same operator may appear in more than one assignment, if the operator has multiple work assignments. Agencies may elect to omit this file from the schedule load dialog.

### ASN1:

```
SchOperatorAssignmentFile ::= SEQUENCE {  
    fileHeader          CPTLoadFileHeader,  
    languages           CPTLanguageList OPTIONAL,  
    assignments         SEQUENCE (SIZE(1..10000)) OF SCHOperatorAssignment OPTIONAL,  
    deleted-assignments SEQUENCE (SIZE(1..10000)) OF SCHOperatorAssignment OPTIONAL  
}
```

**The following dialogs use this message:**

[Load Operator Assignments](#)

## C.289 Message SchOperatorAssignmentList {Sch 2013}

### Use:

This Message can be used in three ways: 1) To provide a list of operator work assignments which are available to be bound to specific operators. 2) To provide a list of operators with assignments complete with the assigned operators 3) To provide a list of operator work assignments some of which are 'filled' and some are not.

### Remarks:

The begin and end fields are used to specify the time interval for which assignments are provided. This interval may be less than what was requested by the subscriber.

The specific-operator field (if present) indicates the operators for which assignments are provided. Use this field only if the corresponding field was used in the subscription request.

The specific-routes field (if present) indicates the routes for which assignments are provided

Use this field only if the corresponding field was used in the subscription request.

The update-since field should only be present if this is an update to a previous list, and if present indicates the earliest time for which updates are provided. The update-thru field indicates that the information provided includes all updates through the indicated date time.

The specific-garages field (if present) indicates the garages for which assignments are provided Use this field only if the corresponding field was used in the subscription request.

The same operator may appear in more than one assignment, if the operator has multiple work assignments during the specified time interval.

### ASN1:

```

SchOperatorAssignmentList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    begin                CPT-DateTime,
    end                  CPT-DateTime,
    update-since          CPT-DateTime OPTIONAL,
    specific-operators   SEQUENCE (SIZE(1..25000)) OF CPTOperatorIden OPTIONAL,
    specific-routes       SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    specific-garages     SEQUENCE (SIZE(1..100)) OF CPToperatorBaseIden OPTIONAL,
    update-thru           CPT-DateTime,
    assignments           SEQUENCE (SIZE(1..100000)) OF SCHOperatorAssignment OPTIONAL,
    deleted-assignments  SEQUENCE (SIZE(1..100000)) OF SCHOperatorAssignment OPTIONAL
}

```

### The following dialogs use this message:

[Publish Operator Assignments](#)

## C.290 Message SchOperatorAssignmentListSub {Sch 2012}

### Use:

Request the work assignments for a specified operator or group of operators or a specified route, or all assignments for a specified time interval. This message elicits work assignments which may or may not be filled by having operators assigned.

### Remarks:

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval of interest to the subscriber. Assignments outside of this interval are not requested. The specific-operator field (if present) indicates that the subscriber is only interested in assignments for the specific operators listed. When used to obtain blank or available assignments (no operator yet assigned to the work) this field should not be present.

This message is used to elicit the SchOperatorAssignmentList message.

The specific-routes field (if present) indicates that the subscriber is only interested in assignments for the specific routes listed.

The specific-garages field (if present) indicates that the subscriber is only interested in assignments for the specific garages listed.

A maximum of one of the specific-operators, specific-routes, and specific-garages fields should be used. If none of the fields are present, all operator work assignments for the specified interval are requested.

The elicited message is SchOperatorAssignmentList

### ASN1:

```
SchOperatorAssignmentListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    beginTime             CPT-Time,
    endDate               CPT-Date,
    endTime               CPT-Time,
    update-since          CPT-DateTime OPTIONAL,
    specific-operators    SEQUENCE (SIZE(1..25000)) OF CPTOperatorIden OPTIONAL,
    specific-routes        SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    specific-garages       SEQUENCE (SIZE(1..100)) OF CPTOperatorBaseIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Operator Assignments](#)

## C.291 Message SchPatternFile {Sch 2034}

### Use:

Provide a set of patterns for load to a vehicle. Each pattern defines a sequence of timepoints and stoppoints. Patterns may be combined to create routes.

### Remarks:

A pattern may be used in more than one route. Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of messages that convey the trip information (Block, Run, and Route Schedules). Consist changes that are applicable to all trains operating on a pattern or pattern segment may be conveyed in the consistChanges field of this message. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

### ASN1:

```
SchPatternFile ::= SEQUENCE {
    fileHeader           CPTLoadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    stoppointVersion     CPT-StoppointVersion OPTIONAL,
    stoppointEffective   CPT-DateTime,
    timepointVersion     SCH-TimetetableVersionID OPTIONAL,
    timepointEffective   CPT-DateTime,
    patterns             SEQUENCE (SIZE(1..2000)) OF SCHPatternInfo OPTIONAL,
    segments              SEQUENCE (SIZE(1..15000)) OF SCHPatternSegment OPTIONAL,
    deleted-patterns    SEQUENCE (SIZE(1..2000)) OF SCHPatternIden OPTIONAL,
    deleted-segments     SEQUENCE (SIZE(1..15000)) OF SCHPatternSegmentIden OPTIONAL,
    consistChanges        SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    notes                SEQUENCE (SIZE(1..5000)) OF SCHNoteInfo OPTIONAL,
    radiozones            SEQUENCE (SIZE(1..100)) OF CPTRadioZone OPTIONAL
}
```

### The following dialogs use this message:

[Load Schedule](#)

## C.292 Message SchPatternList {Sch 2005}

### Use:

Provide a specified version of the pattern list. Each pattern defines a sequence of timepoints and stoppoints. Patterns may be combined to create routes.

### Remarks:

A pattern may be used in more than one route.

An agency may decide to include all patterns for the agency within a pattern version or limit a version to the patterns used by a route or group of routes, however the patternVersion specified for a route (in the SchMasterScheduleVersion message) must correspond to a pattern list containing all patterns for that route (including any patterns specified within the scheduledTripsA, and scheduledTripsB fields) in the SchRouteSchedule message. This message may be used to send a list of changes to a pattern version since a specified time. In such a case the update-since field indicates the date/time from which the updates are provided. The update-thru field indicates the time through which all updates are included - this can be used in requesting the next update. The deleted-patterns, and deleted-segments fields indicate patterns and segments respectively that have been deleted since update-begin.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of messages that convey the trip information (Block, Run, and Route Schedules). Consist changes that are applicable to all trains operating on a pattern or pattern segment may be conveyed in the consistChanges field of this message. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

### ASN1:

```

SchPatternList ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    patternVersion             SCH-TimetableVersionID OPTIONAL,
    effective                  CPT-DateTime,
    update-since                CPT-DateTime OPTIONAL,
    update-thru                 CPT-DateTime,
    stoppointVersion            CPT-StoppointVersion OPTIONAL,
    stoppointEffective           CPT-DateTime,
    timepointVersion             SCH-TimetableVersionID OPTIONAL,
    timepointEffective           CPT-DateTime,
    patterns                    SEQUENCE (SIZE(1..2000)) OF SCHPatternInfo OPTIONAL,
    segments                    SEQUENCE (SIZE(1..15000)) OF SCHPatternSegment OPTIONAL,
    deleted-patterns            SEQUENCE (SIZE(1..5000)) OF SCHPatternIden OPTIONAL,
    deleted-segments            SEQUENCE (SIZE(1..15000)) OF SCHPatternSegmentIden OPTIONAL,
    consistChange                SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    notes                       SEQUENCE (SIZE(1..5000)) OF SCHNoteInfo OPTIONAL,
    radio-zones                 SEQUENCE (SIZE(1..100)) OF CPTRadioZone OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Pattern List](#)

## C.293 Message SchPatternListSub {Sch 2004}

**Use:**

Request a specified version of the pattern list. Each pattern defines a sequence of timepoints and stoppoints. Patterns may be combined to create routes.

**Remarks:**

Subscription type should be query.

An agency may decide to include all patterns for the agency within a pattern version or limit a version to the patterns used by a route or group of routes, however the patternVersion specified for a route (in the SchMasterScheduleVersion message) must correspond to a pattern list containing all patterns for that route (including any patterns specified within the scheduledTripsA, and scheduledTripsB fields) in the SchRouteSchedule message. This message is used to elicit the SchPatternList message.

The elicited message is SchPatternList. This message can be used to query for a complete pattern version, or only changes to the indicated version. If changes only are requested, the update-since field is included and used to indicate the time/date after which updates are being requested. The need-stoppoints field indicates that the stoppoints as well as timepoints are needed in the pattern segment definitions.

**ASN1:**

```
SchPatternListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    patternVersion        SCH-TimetableVersionID OPTIONAL,
    effective             CPT-Datetime,
    updates-since         CPT-Datetime OPTIONAL,
    need-stoppoints       CPT-Boolean
}
```

**The following dialogs use this message:**

[Publish Pattern List](#)

## C.294 Message SchPullInList {Sch 2029}

### Use:

Provide the scheduled pull ins for a specified vehicle or group of vehicles for a specified time interval.

### Remarks:

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval for which pull ins are provided. This interval may be less than what was requested by the subscriber.

The specific-vehicles field (if present) indicates the vehicles for which pull ins are provided. Use this field only if the corresponding field was used in the subscription request.

The specific-routes field (if present) indicates the routes for which pull ins are provided

Use this field only if the corresponding field was used in the subscription request.

The specific-garages field (if present) indicates the garages for which pull ins are provided Use this field only if the corresponding field was used in the subscription request.

The same vehicle may appear in more than one pull in, if the vehicle has multiple work assignments during the specified time interval.

### ASN1:

```
SchPullInList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    beginTime             CPT-Time,
    endDate               CPT-Date,
    endTime               CPT-Time,
    specific-vehicles     SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-routes       SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    specific-garages      SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    pull-ins              SEQUENCE (SIZE(1..25000)) OF SCHPullInOutInfo
}
```

### The following dialogs use this message:

[Publish Pull In List](#)

## C.295 Message SchPullInListSub {Sch 2028}

### Use:

Request the pull ins for specified vehicle(s) or garage(s) for a specified time interval.

### Remarks:

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval of interest to the subscriber. Pull ins outside of this interval are not requested.

The specific-vehicles field (if present) indicates that the subscriber is only interested in pull ins for the specific vehicles listed. This message is used to elicit the SchPullInList message.

The specific-routes field (if present) indicates that the subscriber is only interested in pull ins for the specific routes listed.

The specific-garages field (if present) indicates that the subscriber is only interested in pull ins for the specific garages listed.

A maximum of one of the specific-vehicles, specific-routes, and specific-garages fields should be used. If none of the fields are present, all pull ins for the specified interval are requested.

The elicited message is SchPullInList

### ASN1:

```
SchPullInListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    beginTime             CPT-Time,
    endDate               CPT-Date,
    endTime               CPT-Time,
    specific-vehicles     SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-routes       SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    specific-garages      SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Pull In List](#)

## C.296 Message SchPullOutList {Sch 2027}

### Use:

Provide the scheduled pull outs for a specified vehicle or group of vehicles for a specified time interval.

### Remarks:

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval for which pull outs are provided. This interval may be less than what was requested by the subscriber.

The specific-vehicles field (if present) indicates the vehicles for which pull outs are provided. Use this field only if the corresponding field was used in the subscription request.

The specific-routes field (if present) indicates the routes for which pull outs are provided

Use this field only if the corresponding field was used in the subscription request.

The specific-garages field (if present) indicates the garages for which pull outs are provided Use this field only if the corresponding field was used in the subscription request.

The same vehicle may appear in more than one pull out, if the vehicle has multiple work assignments during the specified time interval.

### ASN1:

```
SchPullOutList ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    beginDate                 CPT-Date,
    beginTime                 CPT-Time,
    endDate                   CPT-Date,
    endTime                   CPT-Time,
    specific-vehicles         SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-routes           SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    specific-garages          SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    pull-outs                 SEQUENCE (SIZE(1..25000)) OF SCHPullInOutInfo
}
```

### The following dialogs use this message:

[Publish Pull Out List](#)

## C.297 Message SchPullOutListSub {Sch 2026}

### Use:

Request the pull outs for specified vehicle(s) or garage(s) for a specified time interval.

### Remarks:

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval of interest to the subscriber. Pull outs outside of this interval are not requested.

The specific-vehicles field (if present) indicates that the subscriber is only interested in pull outs for the specific vehicles listed. This message is used to elicit the SchPullOutList message.

The specific-routes field (if present) indicates that the subscriber is only interested in pull outs for the specific routes listed.

The specific-garages field (if present) indicates that the subscriber is only interested in pull outs for the specific garages listed.

A maximum of one of the specific-vehicles, specific-routes, and specific-garages fields should be used. If none of the fields are present, all pull outs for the specified interval are requested.

The elicited message is SchPullOutList

### ASN1:

```
SchPullOutListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    beginTime             CPT-Time,
    endDate               CPT-Date,
    endTime               CPT-Time,
    specific-vehicles     SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-routes       SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    specific-garages      SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Pull Out List](#)

**C.298 Message SchPushBlockSchedule {Sch 2063}****Use:**

Send the scheduled trips for a block (vehicle assignment) or series of blocks.

**Remarks:**

The sched-blocks field conveys the scheduled-blocks, or the updated blocks in the case of a row update. The deleted-blocks field is only used with row updates.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

**ASN1:**

```
SchPushBlockSchedule ::= SEQUENCE {
    pushHeader          CPTPushHeader,
    languages           CPTLanguageList OPTIONAL,
    effective           CPT-DateTime,
    update-since        CPT-DateTime OPTIONAL,
    expires              CPT-DateTime OPTIONAL,
    sched-blocks        SEQUENCE (SIZE(1..25000)) OF SCHBlockScheduleEntry OPTIONAL,
    deleted-blocks      SEQUENCE (SIZE(1..10000)) OF SCHBlockIden OPTIONAL,
    notes                SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges       SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ...    -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Push Block Schedule](#)

## C.299 Message SchPushCalendar {Sch 2046}

### Use:

Deliver a calendar that defines day types for each day in a time period.

### Remarks:

Calendars are not row-updatable. Any new calendar must supersede previous calendars with overlapping date ranges.

### ASN1:

```
SchPushCalendar ::= SEQUENCE {
    push-header          CPTPushHeader,
    day-definitions      SEQUENCE (SIZE(1..400)) OF SCHCalendarEntry
}
```

The following dialogs use this message:

[Push Calendar](#)

## C.300 Message SchPushMasterScheduleVersion {Sch 2054}

### Use:

Send the Master Schedule Version information initially or as an update.

### Remarks:

### ASN1:

```
SchPushMasterScheduleVersion ::= SEQUENCE {
    pushHeader          CPTPushHeader,
    languages           CPTLanguageList OPTIONAL,
    included-routes    SEQUENCE (SIZE(1..500)) OF SCHRouteIden,
    versionInfos        SEQUENCE (SIZE(1..500)) OF SCHRouteVersion
}
```

The following dialogs use this message:

[Push Master Schedule Version](#)

## C.301 Message SchPushOperatorAssignments {Sch 2042}

**Use:**

Send the list of Operator Assignments.

**Remarks:**

May be bound or unbound

**ASN1:**

```
SchPushOperatorAssignments ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    assignments          SEQUENCE (SIZE(1..100000)) OF SCHOperatorAssignment OPTIONAL,
    deleted-assignments SEQUENCE (SIZE(1..100000)) OF SCHOperatorAssignment OPTIONAL
}
```

The following dialogs use this message:

[Push Operator Assignments](#)

## C.302 Message SchPushPatterns {Sch 2044}

**Use:**

Send the patterns initially or as an update.

**Remarks:**

A pattern may be used in more than one route.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of messages that convey the trip information (Block, Run, and Route Schedules). Consist changes that are applicable to all trains operating on a pattern or pattern segment may be conveyed in the consistChanges field of this message. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

**ASN1:**

```
SchPushPatterns ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    stoppointVersion     CPT-StoppointVersion OPTIONAL,
```

```
stoppointEffective      CPT-DateTime,  
timepointVersion        SCH-TimetableVersionID OPTIONAL,  
timepointEffective      CPT-DateTime,  
patterns                SEQUENCE (SIZE(1..2000)) OF SCHPatternInfo OPTIONAL,  
segments                SEQUENCE (SIZE(1..15000)) OF SCHPatternSegment OPTIONAL,  
notes                  SEQUENCE (SIZE(1..5000)) OF SCHNoteInfo OPTIONAL,  
deleted-patterns       SEQUENCE (SIZE(1..2000)) OF SCHPatternIden OPTIONAL,  
deleted-segments        SEQUENCE (SIZE(1..15000)) OF SCHPatternSegmentIden OPTIONAL,  
consistChanges          SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,  
radio-zones             SEQUENCE (SIZE(1..100)) OF CPTRadioZone OPTIONAL  
}
```

**The following dialogs use this message:**

[Push Patterns](#)

### C.303 Message SchPushRoster {Sch 2056}

**Use:**

Provide a list of rosters for a specified list of garages, operators or routes or "all" routes.

**Remarks:**

**ASN1:**

```
SchPushRoster ::= SEQUENCE {  
    header              CPTPushHeader,  
    languages           CPTLanguageList OPTIONAL,  
    beginDate           CPT-Date,  
    endDate             CPT-Date,  
    rosters             SEQUENCE (SIZE(1..25000)) OF SCHRoster  
}
```

**The following dialogs use this message:**

[Push Roster](#)

### C.304 Message SchPushRouteSchedule {Sch 2055}

**Use:**

Send the Route Schedule (contains scheduled trips) initially, or as an update for a single route.

**Remarks:**

The mode, and route-id-short fields provide additional information which may be useful for some agencies but are not required.

The route-notes field provides references to text notes that are relevant to this route as a whole. The notes field conveys the text of notes that may be referred to by the route-notes field, or by note references in the trips defined by a SCHTripInfo frame conveyed by this message.

The defaultAPattern and defaultBPattern fields define the movement patterns normally associated with this route. Pattern information including the sequence of timepoints and stoppoints associated with a pattern can be obtained by a subscriber using the Publish Pattern List dialog. If a route only runs in one direction (e.g. for a route that runs in a circle), then only default A pattern and trips fields should be used.

Optional fields direction-A, and direction-B allow the directions described in the paragraph to be named with standard names (e.g. N, NW, S, SE, Counterclockwise).

Some agencies vary the patterns on a route from trip to trip or by time of day. Trips which execute a pattern other than the default pattern (for the A or B direction), shall include a trip pattern in the trip-info data frame defining the trip.

This message can be used to convey changes to a route's schedule since a specified time. In such a case the update-since field indicates the date/time from which updates are provided. The update-thru field indicates that all updates through the indicated date time are included. The deletedATrips and deletedBTrips fields indicate trips deleted from the schedule since update-begin.

The SCHTripIden shall be unique for each trip in an agency's schedule, thus the same SCH-TripID, CPT-AgencyID combination shall not appear more than once within a schedule for an agency.

**ASN1:**

```
SchPushRouteSchedule ::= SEQUENCE {
    pushHeader          CPTPushHeader,
    languages           CPTLanguageList OPTIONAL,
    route               SCHRouteIden,
    update-since        CPT-DateTime OPTIONAL,
    route-version       SCH-TimetableVersionID OPTIONAL,
    effective           CPT-DateTime,
    expires              CPT-DateTime OPTIONAL,
    mode                CPT-Mode OPTIONAL,
    route-ID-short      CC-RouteIDShort OPTIONAL,
    note-ids            SEQUENCE (SIZE(1..100)) OF SCHNoteIden OPTIONAL,
    notes               SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    direction-A         SCH-RouteDirectoryName OPTIONAL,
    direction-ALangs    CPTAdditionalLanguageContents OPTIONAL,
    direction-B         SCH-RouteDirectoryName OPTIONAL,
    direction-BLangs   CPTAdditionalLanguageContents OPTIONAL,
    defaultAPattern     SCHPatternIden OPTIONAL,
    defaultBPattern     SCHPatternIden OPTIONAL,
    scheduledATrips     SEQUENCE (SIZE(1..15000)) OF SCHTripInfo OPTIONAL,
    scheduledBTrips     SEQUENCE (SIZE(1..15000)) OF SCHTripInfo OPTIONAL,
    deletedATrips       SEQUENCE (SIZE(1..15000)) OF SCHTripIden OPTIONAL,
```

```

    deletedBTrips          SEQUENCE (SIZE(1..15000)) OF SCHTripIden OPTIONAL,
    transfers              SEQUENCE (SIZE(1..10000)) OF SCHTransferInfo OPTIONAL,
    deleted-transfers     SEQUENCE (SIZE(1..10000)) OF SCH-TransferID OPTIONAL
}

```

**The following dialogs use this message:**

[Push Route Schedule](#)

### C.305 Message SchPushRunSchedule {Sch 2059}

#### Use:

Send the scheduled trips for a run (operator assignment) or series of runs.

#### Remarks:

The sched-runs field conveys the scheduled runs, or the updated runs in the case of a row update. The deleted-runs field is only used with row updates.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

#### ASN1:

```

SchPushRunSchedule ::= SEQUENCE {
    pushHeader           CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    update-since         CPT-DateTime OPTIONAL,
    effective            CPT-DateTime,
    expires              CPT-DateTime OPTIONAL,
    sched-runs           SEQUENCE (SIZE(1..10000)) OF SCHRunScheduleEntry OPTIONAL,
    deleted-runs         SEQUENCE (SIZE(1..10000)) OF SCHRunIden OPTIONAL,
    notes                SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges       SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ... -- # LOCAL_CONTENT
}

```

**The following dialogs use this message:**

[Push Run Schedule](#)

### C.306 Message SchPushRunningTimes {Sch 2051}

#### Use:

Send the list of scheduled running times.

#### Remarks:

#### ASN1:

```
SchPushRunningTimes ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPLanguageList OPTIONAL,
    running-times        SEQUENCE (SIZE(1..15000)) OF SCHrunningTimeEntry
}
```

#### The following dialogs use this message:

[Push Running Times](#)

### C.307 Message SchPushTimepoints {Sch 2045}

#### Use:

Send the timepoints initially or as an update.

#### Remarks:

Timepoints may be used in more than one pattern segments and/or pattern.

#### ASN1:

```
SchPushTimepoints ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPLanguageList OPTIONAL,
    timepoints           SEQUENCE (SIZE(1..25000)) OF SCHtimepointInfo OPTIONAL,
    deleted-timepoints   SEQUENCE (SIZE(1..25000)) OF SCHtimepointIden OPTIONAL
}
```

#### The following dialogs use this message:

[Push Timepoints](#)

### C.308 Message SchPushVehicleAssignments {Sch 2043}

#### Use:

Send the list of Vehicle Assignments.

#### Remarks:

May be bound or unbound.

#### ASN1:

```
SchPushVehicleAssignments ::= SEQUENCE {
    push-header          CPTPushHeader,
    languages            CPTLanguageList OPTIONAL,
    assignments          SEQUENCE (SIZE(1..25000)) OF SCHVehicleAssignment OPTIONAL,
    deleted-assignments SEQUENCE (SIZE(1..25000)) OF SCHVehicleAssignment OPTIONAL
}
```

The following dialogs use this message:

[Push Vehicle Assignments](#)

### C.309 Message SchReportValidationErrors {Sch 2038}

#### Use:

Report to a scheduling system, data repository, or other agency specified application that a schedule is invalid.

#### Remarks:

#### ASN1:

```
SchReportValidationErrors ::= SEQUENCE {
    languages            CPTLanguageList OPTIONAL,
    originator           CPT-ApplicationID,
    version-used         SCHRoutVersion,
    time-failed          CPT-DateTime OPTIONAL,
    found-errors         SEQUENCE (SIZE(1..300)) OF SCHValidationErrors
}
```

The following dialogs use this message:

[Report Schedule Validation Error](#)

### C.310 Message SchReportValidationErrorsAck {Sch 2039}

#### Use:

Acknowledge a reported schedule validation failure.

#### Remarks:

#### ASN1:

```
SchReportValidationErrorsAck ::= SEQUENCE {
    languages           CPTLanguageList OPTIONAL,
    originator          CPT-ApplicationID, -- refers to the application detecting the
failure
    version-used        SCHRouteVersion
}
```

The following dialogs use this message:

[Report Schedule Validation Error](#)

### C.311 Message SchRosterList {Sch 2031}

#### Use:

Provide a list of rosters for a specified list of garages, operators, or routes or "all" routes.

#### Remarks:

#### ASN1:

```
SchRosterList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    endDate               CPT-Date,
    specific-operators   SEQUENCE (SIZE(1..25000)) OF CPTOperatorIden OPTIONAL,
    specific-Routes       SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL,
    specific-Garages     SEQUENCE (SIZE(1..100)) OF CPTOperatorBaseIden OPTIONAL,
    rosters               SEQUENCE (SIZE(1..25000)) OF SCHroster
}
```

The following dialogs use this message:

[Publish Roster](#)

### C.312 Message SchRosterListSub {Sch 2030}

#### Use:

Request a list of rosters for a specified list of routes, operators, garages or "all" rosters.

#### Remarks:

If the specified-routes, specific operator IDs or the specific-garages field is present, then only rosters related to the specified garages, routes are requested. If none of these fields are present "all rosters" is implied. This message is used to elicit the SchRosterList message.

#### ASN1:

```
SchRosterListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    endDate               CPT-Date,
    specific-operators    SEQUENCE (SIZE(1..25000)) OF CPTOperatorIden OPTIONAL,
    specific-Routes       SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    specific-Garages      SEQUENCE (SIZE(1..100)) OF CPTOperatorBaseIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Roster](#)

### C.313 Message SchRouteSchedule {Sch 2003}

#### Use:

Provide a specified version of schedule information describing the scheduled trips for a specified route.

#### Remarks:

The mode, and route-id-short fields provide additional information which may be useful for some agencies but are not required.

The route-notes field provides references to text notes that are relevant to this route as a whole. The notes field conveys the text of notes that may be referred to by the route-notes field, or by note references in the trips defined by a SCHTripInfo frame conveyed by this message.

The defaultAPattern and defaultBPattern fields define the movement patterns normally associated with this route. Pattern information including the sequence of timepoints and stoppoints associated with a pattern can be obtained by a subscriber using the Publish Pattern List dialog. If a route only runs in one direction (e.g. for a route that runs in a circle), then only A patterns and trips fields should be used.

Optional fields direction-A, and direction-B allow the directions described in the paragraph to be named with standard names (e.g. N, NW, S, SE, Counterclockwise).

Some agencies vary the patterns on a route from trip to trip or by time of day. Trips which execute a pattern other than the default pattern (for the A or B direction), should include a trip pattern in the trip-info data frame defining the trip. This message can be used to convey changes to a route's schedule since a specified

time. In such a case the update-since field indicates the date/time from which updates are provided. The update-thru field indicates that all updates through the indicated date time are included. The deletedATrips and deletedBTrips fields indicate trips deleted from the schedule since update-begin.

The SCHTripIden shall be unique for each trip in an agency's schedule, thus the same SCH-TripID, CPT-AgencyID combination shall not appear more than once within a schedule for an agency.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

### ASN1:

```
SchRouteSchedule ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    route                      SCHRouteIden,
    update-since               CPT-Datetime OPTIONAL,
    routeversion                SCH-TimetableVersionID OPTIONAL,
    include-events              CPT-Boolean,
    effective                  CPT-Datetime,
    expires                    CPT-Datetime OPTIONAL,
    mode                       CPT-Mode OPTIONAL,
    route-name                 SCH-RouteName OPTIONAL,
    route-nameLangs            CPTAdditionalLanguageContents OPTIONAL,
    route-designator            SCH-RouteDesignator OPTIONAL,
    route-designatorLangs      CPTAdditionalLanguageContents OPTIONAL,
    route-ID-short             CC-RouteIDShort OPTIONAL,
    notes                      SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    direction-A                SCH-RouteDirectoryName OPTIONAL,
    direction-ALangs            CPTAdditionalLanguageContents OPTIONAL,
    direction-B                SCH-RouteDirectoryName OPTIONAL,
    direction-BLangs           CPTAdditionalLanguageContents OPTIONAL,
    defaultAPattern            SCHPatternIden OPTIONAL,
    defaultBPattern            SCHPatternIden OPTIONAL,
    scheduledATrips             SEQUENCE (SIZE(1..15000)) OF SCHTripInfo OPTIONAL,
    scheduledBTrips             SEQUENCE (SIZE(1..15000)) OF SCHTripInfo OPTIONAL,
    deletedATrips               SEQUENCE (SIZE(1..10000)) OF SCHTripIden OPTIONAL,
    deletedBTrips               SEQUENCE (SIZE(1..10000)) OF SCHTripIden OPTIONAL,
    transfers                   SEQUENCE (SIZE(1..10000)) OF SCHTransferInfo OPTIONAL,
    deleted-transfers          SEQUENCE (SIZE(1..10000)) OF SCH-TransferID OPTIONAL,
    consistChanges              SEQUENCE (SIZE(1..2000)) OF SCHConsistChangeEvent OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Route Schedule](#)

## C.314 Message SchRouteScheduleFile {Sch 2035}

### Use:

Provide scheduled trips by route for loading to a vehicle. Agencies may include all routes or a subset of routes in vehicle loads.

### Remarks:

The SCHTripIden shall be unique for each trip in an agency's schedule, thus the same SCH-TripID, CPT-AgencyID combination shall not appear more than once within a schedule for an agency.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this message. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

### ASN1:

```
SchRouteScheduleFile ::= SEQUENCE {
    fileHeader           CPTLoadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    route-schedules     SEQUENCE (SIZE(1..500)) OF SCHPTVRouteScheduleEntry OPTIONAL,
    deleted-routes      SEQUENCE (SIZE(1..500)) OF SCHRoutIden OPTIONAL,
    transfers            SEQUENCE (SIZE(1..10000)) OF SCHTransferInfo OPTIONAL,
    deleted-transfers   SEQUENCE (SIZE(1..10000)) OF SCH-TransferID OPTIONAL,
    notes                SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges       SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL
}
```

**The following dialogs use this message:**

[Load Schedule](#)

### C.315 Message SchRouteScheduleSub {Sch 2002}

#### Use:

Request a specified version of schedule information for a specified route.

The elicited message is SchRouteSchedule.

#### Remarks:

Subscription type should be query. If the information changes, then a new version number should be created by the scheduling system or schedule repository (server). The subscriber can become aware of such updates using the Publish Master Schedule Version dialog. This message is used to elicit the SchRouteSchedule message.

The include-events field indicates whether the response message should include event information such as sign change location and fare zone change information.

This message may be used to request changes to a route schedule since a specified date/time, by using the update-begin field.

#### ASN1:

```
SchRouteScheduleSub ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    route                      SCHRouteIden,
    update-since                CPT-Datetime OPTIONAL,
    routeVersion               SCH-TimetableVersionID OPTIONAL,
    include-events             CPT-Boolean,
    effective                  CPT-Datetime
}
```

**The following dialogs use this message:**

[Publish Route Schedule](#)

### C.316 Message SchRunScheduleFile {Sch 2060}

#### Use:

Provide scheduled trips by run for loading to a vehicle.

#### Remarks:

The sched-runs field conveys the scheduled runs, or the updated runs in the case of a row update. The deleted-runs field is only used with row updates.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

#### ASN1:

```
SchRunScheduleFile ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    sched-runs          SEQUENCE (SIZE(1..10000)) OF SCHRunScheduleEntry OPTIONAL,
    deleted-runs        SEQUENCE (SIZE(1..10000)) OF SCHRUNIden OPTIONAL,
    notes               SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges      SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ...    -- # LOCAL_CONTENT
}
```

#### The following dialogs use this message:

[Load Schedule](#)

### C.317 Message SchRunScheduleList {Sch 2062}

**Use:**

Provide the scheduled trips for a run (operator assignment) or group of runs.

**Remarks:**

The sched-runs field conveys the scheduled runs, or the updated runs in the case of a row update. The deleted-runs field is only used with row updates. The updates-since field is present only for row update messages. The specific-runs field and/or specific garages field are present only if included in the eliciting SCHRunListSub message. The deleted-runs field is used only in row update messages.

Train consist changes may be defined for a trip, pattern segment, or for a pattern through the events that are associated with those items. The event contains a list of triggers (SchActivationIden). The trigger is used to associate the SCHConsistChangeEvent with the event in the trip, segment, or pattern. Other triggers associated with the same event may tie the event to other actions (e.g. announcements, destination sign changes).

Train consist change events that are unique to specific trips (as opposed to all trips on a pattern or segment) are listed in the consistChanges field of this messages. Consist changes that are applicable to all trains operating on a pattern or pattern segment are conveyed with the pattern/pattern segment information. An agency may elect to convey all consist changes with the trip definitions (Block Schedule, Run Schedule, Route Schedule) and define all consist changes at the trip level. The consistChanges field is not present for bus service.

**ASN1:**

```
SchRunScheduleList ::= SEQUENCE {
    subscriptionInfo           CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    effective                  CPT-DaTeTime,
    specific-garages           SEQUENCE (SIZE(1..10)) OF CPTOperatorBaseIden OPTIONAL,
    specific-runs               SEQUENCE (SIZE(1..10000)) OF SCHRUnIden OPTIONAL,
    update-since                CPT-DaTeTime OPTIONAL,
    sched-runs                 SEQUENCE (SIZE(1..10000)) OF SCHRUnScheduleEntry OPTIONAL,
    deleted-runs                SEQUENCE (SIZE(1..10000)) OF SCHRUnIden OPTIONAL,
    notes                      SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL,
    consistChanges              SEQUENCE (SIZE(1..20000)) OF SCHConsistChangeEvent OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

**The following dialogs use this message:**

[Publish Run Schedule](#)

**C.318 Message SchRunScheduleListSub {Sch 2061}****Use:**

Request the scheduled trips for a run (operator assignment), group of runs or all runs.

**Remarks:**

If the effective field is present, the request is for the specified schedule or updates to the specific schedule with the specified effective date time. If the update-since field is present, the request is for updates since the indicated date time. If the specific-runs field is present, the request is for information only on the listed runs. If the specific-runs field is absent, the request is for all runs. If the specific garages field is present, the request is for information only on runs associated with the listed facilities. If the specific-garages field is absent the request is for information on runs associated with all garages.

**ASN1:**

```
SchRunScheduleListSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    effective              CPT-Datetime,
    specific-garages       SEQUENCE (SIZE(1..10)) OF CPTOperatorBaseIden OPTIONAL,
    specific-runs          SEQUENCE (SIZE(1..10000)) OF SCHRUnIden OPTIONAL,
    update-since            CPT-Datetime OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Run Schedule](#)

**C.319 Message SchRunningTimeList {Sch 2040}****Use:**

Convey a list of scheduled running times, for a set of routes, patterns, pattern segments, timepoint pairs or stoppoint pairs.

**Remarks:**

The pattern-eff corresponds to the effective field in the pattern list.

**ASN1:**

```
SchRunningTimeList ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    patternVersion        SCH-TimetableVersionID OPTIONAL,
    pattern-eff            CPT-Datetime OPTIONAL,
    routes                 SEQUENCE (SIZE(1..500)) OF SCHRRouteIden OPTIONAL,
    patterns               SEQUENCE (SIZE(1..15000)) OF SCHPatternIden OPTIONAL,
    pattern-segments       SEQUENCE (SIZE(1..15000)) OF SCHPatternSegmentIden OPTIONAL,
    stoppoint-intervals    SEQUENCE (SIZE(1..1000)) OF SCHStoppointPair OPTIONAL,
    timepoint-intervals    SEQUENCE (SIZE(1..1000)) OF SCHTimepointInterval OPTIONAL,
    running-times          SEQUENCE (SIZE(1..15000)) OF SCHRrunningTimeEntry
}
```

**The following dialogs use this message:**

[Publish Running Times](#)

## C.320 Message SchRunningTimeListSub {Sch 2041}

**Use:**

Request a list of scheduled running times for a set of routes, patterns, pattern segments, timepoint pairs or stoppoint pairs.

**Remarks:**

The routes, patterns, pattern-segments, stoppoint-intervals, and timepoint-intervals fields are specifications for what running times are requested. At most one of these should be present. If none of these fields are present, all scheduled running times are requested. This message is used to elicit the SchRunningTimeList message.

**ASN1:**

```
SchRunningTimeListSub ::= SEQUENCE {
    subscriptionInfo          CPTSSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    patternVersion             SCH-TimetableVersionID OPTIONAL,
    pattern-eff                CPT-DateTime OPTIONAL,
    routes                     SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    patterns                   SEQUENCE (SIZE(1..5000)) OF SCHPatternIden OPTIONAL,
    pattern-segments           SEQUENCE (SIZE(1..15000)) OF SCHPatternSegmentIden OPTIONAL,
    stoppoint-intervals        SEQUENCE (SIZE(1..15000)) OF SCHStoppointPair OPTIONAL,
    timepoint-intervals        SEQUENCE (SIZE(1..1000)) OF SCHTimepointInterval OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Running Times](#)

### C.321 Message SchStopServiceList {Sch 2015}

#### Use:

Provide a list of the service (scheduled transit vehicle visits) at a stoppoint or list of stoppoints.

#### Remarks:

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields specify the period of time for which the available service is provided.

The stoppoints field specifies the stoppoint(s) for which the available service is provided.

#### ASN1:

```
SchStopServiceList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    beginDate            CPT-Date,
    beginTime            CPT-Time,
    endDate              CPT-Date,
    endTime              CPT-Time,
    stoppoints           SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden,
    availableServices    SEQUENCE (SIZE(1..25000)) OF SCHServiceAtStop
}
```

#### The following dialogs use this message:

[Publish Stop Service](#)

### C.322 Message SchStopServiceListSub {Sch 2014}

#### Use:

Request a list of the service (scheduled transit vehicle visits) at a stoppoint or list of stoppoints.

#### Remarks:

The beginDate, beginTime, endDate, and endTime fields specify the period of time for which the subscriber is interested in available service.

The stoppoints field specifies the stoppoint(s) for which the subscriber is requesting service information. This message is used to elicit the SchStopServiceList message.

#### ASN1:

```
SchStopServiceListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    beginDate            CPT-Date,
    beginTime            CPT-Time,
    endDate              CPT-Date,
    endTime              CPT-Time,
```

```
    stoppoints          SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden
}
```

**The following dialogs use this message:**

[Publish Stop Service](#)

### C.323 Message SchTimepointList {Sch 2007}

**Use:**

Provide a specified version of timepoint information

**Remarks:**

A timepoint may be used in more than one pattern.

An agency may decide to include all timepoints for the agency within a timepoint version, or to limit a version to the timepoints included on a route or group of routes, however all timepoints referenced in a pattern list (SchPatternList message) must be included in the version of the timepoints referenced by that pattern list. The update-thru field that the information provided reflects all updates thru the indicated datetime.

This message can be used to convey changes to a timepoint list version since a specified time. In such a case, the update-since field indicates the date/time from which updates are provided. The deleted-timepoints field indicate timepoints deleted from the list since update-begin.

**ASN1:**

```
SchTimepointList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    update-since         CPT-DateTime OPTIONAL,
    timepointVersion     SCH-TimetableVersionID OPTIONAL,
    effective            CPT-DateTime,
    expires              CPT-DateTime OPTIONAL,
    timepoints           SEQUENCE (SIZE(1..10000)) OF SCHTimepointInfo OPTIONAL,
    deleted-timepoints   SEQUENCE (SIZE(1..25000)) OF SCHTimepointIden OPTIONAL,
    notes                SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Timepoint List](#)

### C.324 Message SchTimepointListSub {Sch 2006}

#### Use:

Request a specified version of timepoint information

#### Remarks:

Subscription type should be query.

An agency may decide to include all time points for the agency within a timepoint version, or to limit a version to the timepoints included on a route or group of routes, however all timepoints referenced in a pattern list (SchPatternList message) must be included in the version of the timepoints referenced by that pattern list.

This message may be used to request changes to a timepoint list since a specified date/time, by using the update-since field. This message is used to elicit the SchTimepointList message.

#### ASN1:

```
SchTimepointListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    timepointVersion     SCH-TimetableVersionID OPTIONAL,
    effective             CPT-DateTime, -- effective date of requested file
    update-since          CPT-DateTime OPTIONAL
}
```

The following dialogs use this message:

[Publish Timepoint List](#)

### C.325 Message SchTimepointsFile {Sch 2032}

#### Use:

Provide a specified version of timepoint information for load to a vehicle.

#### Remarks:

A timepoint may be used in more than one pattern. The file may contain updates only signified by the file header updates-since field.

#### ASN1:

```
SchTimepointsFile ::= SEQUENCE {
    fileHeader            CPTLoadFileHeader,
    languages             CPTLanguageList OPTIONAL,
    timepoints            SEQUENCE (SIZE(1..25000)) OF SCHTimepointInfo OPTIONAL,
    deleted-timepoints   SEQUENCE (SIZE(1..25000)) OF SCHTimepointIden OPTIONAL,
    notes                 SEQUENCE (SIZE(1..2000)) OF SCHNoteInfo OPTIONAL
}
```

The following dialogs use this message:

[Load Schedule](#)

## C.326 Message SchTripDetailList {Sch 2019}

### Use:

Provide a list of detailed trip information for a specified set of trips.

### Remarks:

The beginDate, beginTime, endDate, and endTime fields specify the period of time for which the trip information is provided.

The trips field specifies a list of trips for which the trip details are provided. Use this field only if the corresponding field was used in the subscription request.

The timepoints field specifies a list of timepoints for which the trip details are provided.

The stoppoints field specifies a list of stoppoints for which the trip details are provided. Use this field only if the corresponding field was used in the subscription request.

The routes field specifies a list of routes for which the trip details are provided. Use this field only if the corresponding field was used in the subscription request.

Only one of the trips, routes, timepoints, or stoppoints fields may be present in the message.

### ASN1:

```
SchTripDetailList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    beginDate            CPT-Date,
    beginTime            CPT-Time,
    endDate              CPT-Date,
    endTime              CPT-Time,
    trips                SEQUENCE (SIZE(1..100000)) OF SCHTripIden OPTIONAL,
    timepoints           SEQUENCE (SIZE(1..500)) OF SCHTimepointIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    routes               SEQUENCE (SIZE(1..100)) OF SCHRoutIden OPTIONAL,
    trip-details         SEQUENCE (SIZE(1..500)) OF SCHTripDetailInfo
}
```

**The following dialogs use this message:**

[Publish Trip Detail](#)

## C.327 Message SchTripDetailListSub {Sch 2018}

### Use:

Request a list of detailed trip information for a specified set of trips.

### Remarks:

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields specify the period of time for which the subscriber is interested in trip information.

The trips field specifies a list of trips for which the subscriber is requesting trip details.

The timepoints field specifies a list of timepoints for which the subscriber is requesting trip details for all trips including the timepoint within the specified time interval. This message is used to elicit the SchTripDetailList message.

The stoppoints field specifies a list of stoppoints for which the subscriber is requesting trip details for all trips including the stoppoint within the specified time interval.

The routes field specifies a list of routes for which the subscriber is requesting trip details for all trips scheduled on the designated routes within the specified time interval.

Only one of the trips, routes, timepoints, or stoppoints fields may be present in the message.

The elicited message is SchTripDetailList

### ASN1:

```
SchTripDetailListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    beginDate            CPT-Date,
    beginTime            CPT-Time,
    endDate              CPT-Date,
    endTime              CPT-Time,
    trips                SEQUENCE (SIZE(1..100000)) OF SCHTripIden OPTIONAL,
    timepoints           SEQUENCE (SIZE(1..10000)) OF SCHTimepointIden OPTIONAL,
    stoppoints            SEQUENCE (SIZE(1..25000)) OF CPTStoppointIden OPTIONAL,
    routes               SEQUENCE (SIZE(1..100)) OF SCHRouteIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Trip Detail](#)

### C.328 Message SchUnassignedOperatorList {Sch 2025}

**Use:**

Provide a list of the unassigned operators for a specified time interval.

**Remarks:**

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval for which unassigned operators are provided. This interval may be less than what was requested by the subscriber.

The specific-operators field (if present) indicates that only specific operators were checked for unassigned status. Use this field only if the corresponding field was used in the subscription request.

The specific-bases field (if present) indicates the garages for which unassigned operators are provided. Use this field only if the corresponding field was used in the subscription request.

**ASN1:**

```
SchUnassignedOperatorList ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    beginDate                 CPT-Date,
    beginTime                 CPT-Time,
    endDate                   CPT-Date,
    endTime                   CPT-Time,
    specific-operators        SEQUENCE (SIZE(1..25000)) OF CPTOperatorIden OPTIONAL,
    specific-bases            SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    unassigned-operators      SEQUENCE (SIZE(1..25000)) OF SCHUnassignedOperator,
    specific-garages          CPTOperatorBaseIden
}
```

**The following dialogs use this message:**

[Publish Unassigned Operators](#)

### C.329 Message SchUnassignedOperatorListSub {Sch 2024}

#### Use:

Request a list of unassigned operators for a specified time interval

#### Remarks:

The subscription type should be query or event. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval of interest to the subscriber. Unassigned operators outside of this interval are not requested.

The specific-operators field (if present) indicates that the subscriber is only interested in assignments for the specific operators listed.

The specific-bases field (if present) indicates that the subscriber is only interested in unassigned operators from the base(s) listed.

Either specific-operators, or specific-bases, or neither may be used. If none of the fields are present, all unassigned operators for the specified interval are requested. This message is used to elicit the SchUnassignedOperatorList message.

The elicited message is SchUnassignedOperatorList

#### ASN1:

```
SchUnassignedOperatorListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    beginTime             CPT-Time,
    endDate               CPT-Date,
    endTime               CPT-Time,
    specific-operators   SEQUENCE (SIZE(1..25000)) OF CPOperatorIden OPTIONAL,
    specific-bases        SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL
}
```

#### The following dialogs use this message:

[Publish Unassigned Operators](#)

## C.330 Message SchUnassignedVehicleList {Sch 2023}

### Use:

Provide a list of the unassigned vehicles for a specified time interval.

### Remarks:

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval for which unassigned vehicles are provided. This interval may be less than what was requested by the subscriber.

The specific-vehicles field (if present) indicates that only specific vehicles were checked for unassigned status. Use this field only if the corresponding field was used in the subscription request.

The specific-garages field (if present) indicates the garages for which unassigned vehicles are provided. Use this field only if the corresponding field was used in the subscription request.

The vehicle-attributes field indicates that only vehicles with all of the listed attribute(s) were considered in creating the response. Use this field only if the corresponding field was used in the subscription request.

The vehicle-types field indicates that only vehicles matching one of the specified types were considered in creating the response. Use this field only if the corresponding field was used in the subscription request.

### ASN1:

```
SchUnassignedVehicleList ::= SEQUENCE {
    subscriptionInfo          CPTSubscriptionHeader,
    languages                  CPTLanguageList OPTIONAL,
    beginDate                 CPT-Date,
    beginTime                 CPT-Time,
    endDate                   CPT-Date,
    endTime                   CPT-Time,
    specific-vehicles         SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-garages          SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    vehicle-attributes        SEQUENCE (SIZE(1..20)) OF CPT-PTVehicleAttribute OPTIONAL,
    vehicle-types              SEQUENCE (SIZE(1..10)) OF CPT-PTVehicleType OPTIONAL,
    unassigned-vehicles        SEQUENCE (SIZE(1..25000)) OF SCHUnassignedVehicle
}
```

The following dialogs use this message:

[Publish Unassigned Vehicles](#)

### C.331 Message SchUnassignedVehicleListSub {Sch 2022}

#### Use:

Request the unassigned vehicles for a specified time interval.

#### Remarks:

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval of interest to the subscriber. Unassigned vehicles outside of this interval are not requested.

The specific-vehicles field (if present) indicates that the subscriber is only interested in assignments for the specific vehicles listed.

The specific-garages field (if present) indicates that the subscriber is only interested in assignments for the specific garages listed.

The vehicle-attributes field indicates that only vehicles with the all of the listed attribute(s) should be listed in the response. This message is used to elicit the SchUnassignedVehicleList message.

The vehicle-types field indicates that only vehicles matching one of the specified types should be listed in the response.

A maximum of one of the specific-vehicles, and specific-garages fields should be used. If none of the fields are present, all unassigned vehicles of the specified type(s) and attribute(s) for the specified interval are requested.

The elicited message is SchUnassignedVehicleList

#### ASN1:

```
SchUnassignedVehicleListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,
    beginTime             CPT-Time,
    endDate               CPT-Date,
    endTime               CPT-Time,
    specific-vehicles     SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-garages      SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    vehicle-attributes   SEQUENCE (SIZE(1..20)) OF CPT-PTVehicleAttribute OPTIONAL,
    vehicle-types         SEQUENCE (SIZE(1..10)) OF CPT-PTVehicleType OPTIONAL
}
```

**The following dialogs use this message:**

[Publish Unassigned Vehicles](#)

### C.332 Message SchVehicleAssignmentFile {Sch 2037}

#### Use:

Provide vehicle assignments (blocks) for load to a vehicle.

#### Remarks:

The message must provide the blocks assigned to the loaded vehicle. Agencies may elect to use this message to load other blocks to the vehicle as well to facilitate rapid reassessments.

#### ASN1:

```
SchVehicleAssignmentFile ::= SEQUENCE {
    fileHeader          CPTLoadFileHeader,
    languages           CPTLanguageList OPTIONAL,
    assignments         SEQUENCE (SIZE(1..25000)) OF SCHVehicleAssignment OPTIONAL,
    deleted-assignments SEQUENCE (SIZE(1..25000)) OF SCHVehicleAssignment OPTIONAL
}
```

The following dialogs use this message:

[Load Vehicle Assignments](#)

### C.333 Message SchVehicleAssignmentList {Sch 2011}

#### Use:

This message can be used in three ways 1) to provide a list of vehicle work assignments (blocks) which are available to be bound by actual vehicle assignments, 2) to provide a list of vehicle assignments (blocks) complete with the assigned vehicles identified, or 3) to provide a list of vehicle work assignments (blocks) some of which have and some of which have not been bound to a specific vehicle.

#### Remarks:

The begin and end fields are used to specify the time interval for which assignments are provided. This interval may be less than what was requested by the subscriber.

The specific-vehicles field (if present) indicates the vehicles for which assignments are provided. Use this field only if the corresponding field was used in the subscription request.

The specific-routes field (if present) indicates the routes for which assignments are provided

Use this field only if the corresponding field was used in the subscription request.

The specific-garages field (if present) indicates the garages for which assignments are provided Use this field only if the corresponding field was used in the subscription request.

The update-since field should only be present if this is an update to a previously provided list. The update-thru field indicates that the information provided includes all updates through the indicated datetime.

The same vehicle may appear in more than one assignment, if the vehicle has multiple work assignments during the specified time interval.

**ASN1:**

```

SchVehicleAssignmentList ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    begin                CPT-Datetime,
    end                  CPT-Datetime,
    updateSince           CPT-Datetime OPTIONAL,
    specific-vehicles    SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,
    specific-routes       SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,
    specific-garages     SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL,
    update-thru          CPT-Datetime,
    assignments           SEQUENCE (SIZE(1..25000)) OF SCHVehicleAssignment OPTIONAL,
    deleted-assignments  SEQUENCE (SIZE(1..25000)) OF SCHVehicleAssignment OPTIONAL
}

```

**The following dialogs use this message:**

[Publish Vehicle Assignments](#)

### C.334 Message SchVehicleAssignmentListSub {Sch 2010}

**Use:**

Request the assignments(blocks) for a specified vehicle or group of vehicles, or specified routes, or specified garages for a specified time interval. This message elicits assignments (blocks) which may or may not be filled by having a vehicle identified and assigned to the work.

**Remarks:**

The subscription type should be query. Periodic and event subscription types should not be used.

The beginDate, beginTime, endDate, and endTime fields are used to specify the time interval of interest to the subscriber. Assignments outside of this interval are not requested.

The specific-vehicles field (if present) indicates that the subscriber is only interested in assignments for the specific vehicles listed.

The specific-routes field (if present) indicates that the subscriber is only interested in assignments for the specific routes listed.

The specific-garages field (if present) indicates that the subscriber is only interested in assignments for the specific garages listed. This message is used to elicit the SchVehicleAssignmentList message.

A maximum of one of the specific-vehicles, specific-routes, and specific-garages fields should be used. If none of the fields are present, all vehicle assignments for the specified interval are requested.

The elicited message is SchVehicleAssignmentList

**ASN1:**

```

SchVehicleAssignmentListSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    beginDate             CPT-Date,

```

```
beginTime          CPT-Time,  
endDate           CPT-Date,  
endTime           CPT-Time,  
updateSince       CPT-Datetime OPTIONAL,  
specific-vehicles SEQUENCE (SIZE(1..25000)) OF CPTVehicleIden OPTIONAL,  
specific-routes   SEQUENCE (SIZE(1..500)) OF SCHRouteIden OPTIONAL,  
specific-garages  SEQUENCE (SIZE(1..100)) OF CPTTransitFacilityIden OPTIONAL  
}
```

**The following dialogs use this message:**

[Publish Vehicle Assignments](#)

## C.335 Message ScpEventLog {SCP 2014}

**Use:**

Provide an event log for signal priority requests from the Traffic Management Center to the transit Control Center or data repository.

**Remarks:**

The begin-time, and end-time fields specify the time interval for which logged information is provided. The intersections field specifies the list of intersections for which log information is provided. If there is no log data for the specified interval, the intersections and event-log fields are omitted.

**ASN1:**

```
ScpEventLog ::= SEQUENCE {  
    subscriptionInfo      CPTSubscriptionHeader,  
    languages            CPTLanguageList OPTIONAL,  
    begin-time           CPT-Datetime,  
    end-time             CPT-Datetime,  
    intersections        SEQUENCE (SIZE(1..100000)) OF CPTIntersectionIden OPTIONAL,  
    event-logs           SEQUENCE (SIZE(1..100000)) OF TSPEventLogEntry  
}
```

**The following dialogs use this message:**

[Publish PRS Event Log](#)

**C.336 Message ScpEventLogSub {Tsp 2015}****Use:**

Request an event log for signal priority events from the Traffic Management Center.

**Remarks:**

The begin-time and end-time fields are used to specify the time interval for which history data is requested. The intersections field specifies the list of intersections for which history data is requested, omission of this field signifies "all intersections". This message is used to elicit the ScpEventLog message.

**ASN1:**

```
ScpEventLogSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    begin-time            CPT-DaTeTime,
    end-time              CPT-DaTeTime,
    intersections         SEQUENCE (SIZE(1..100000)) OF CPTIntersectionIden OPTIONAL
}
```

**The following dialogs use this message:**

[Publish PRS Event Log](#)

**C.337 Message ScpPriorityCancel {Tsp 2002}****Use:**

Instruct the PRS to cancel a previously requested priority request.

**Remarks:**

For transmission to the PRS, this is an Octet Encoding Rules (OER) string of size 21. This message equates to the prgPriorityCancel defined in NTCIP 1211. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```
ScpPriorityCancel ::= SEQUENCE {
    requestID           SCP-PriorityRequestID, -- 1octet
    vin                 CPT-VIN, -- 17octets
    vehicleClassType   SCP-VehicleClassType, -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem  TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP      CPT-IPAddress OPTIONAL,
    intersectionPort    CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}
```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

### C.338 Message ScpPriorityCancelAck {Tsp 2003}

#### Use:

Acknowledge a cancellation of a priority request.

#### Remarks:

For transmission from the PRS, this is an Octet Encoding Rules (OER) string of size 21. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

#### ASN1:

```
ScpPriorityCancelAck ::= SEQUENCE {
    requestID          SCP-PriorityRequestID,    -- 1octet
    vin                CPT-VIN,                  -- 17octets
    vehicleClassType   SCP-VehicleClassType,     -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel,    -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem  TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP     CPT-IPAddress OPTIONAL,
    intersectionPort   CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}
```

#### The following dialogs use this message:

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

**C.339 Message ScpPriorityClear {Tsp 2012}****Use:**

Notify the PRS that the vehicle has cleared the intersection and that the priority request can be cleared from the table.

**Remarks:**

For transmission to the PRS, this is an Octet Encoding Rules (OER) string of size 21. This message equates prgPriorityClear defined in NTCIP 1211. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```
ScpPriorityClear ::= SEQUENCE {
    requestID          SCP-PriorityRequestID,   -- 1octet
    vin                CPT-VIN,      -- 17octets
    vehicleClassType   SCP-VehicleClassType,  -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem  TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP     CPT-IPAddress OPTIONAL,
    intersectionPort   CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}
```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

**C.340 Message ScpPriorityClearAck {Tsp 2001}****Use:**

Acknowledge a priority clear.

**Remarks:**

For transmissions from the PRS, this is an Octet encoding rules (OER) string of size 21. the optional fields are for use only between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```
ScpPriorityClearAck ::= SEQUENCE {
    requestID          SCP-PriorityRequestID,   -- 1octet
    vin                CPT-VIN,      -- 17octets
    vehicleClassType   SCP-VehicleClassType,  -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
```

```
intersectionModem      TSP-ModemPhoneNum OPTIONAL,  
intersectionDropAddr   TSP-DropAddr OPTIONAL,  
intersectionIP         CPT-IPAddress OPTIONAL,  
intersectionPort        CPT-UDP-TCP-PortNumber OPTIONAL,  
intersectionIdentifier  TMDD.Intersection-identifier OPTIONAL  
}
```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

### C.341 Message ScpPriorityRequest {Tsp 2011}

**Use:**

Request priority treatment for a transit vehicle from a traffic signal.

**Remarks:**

For transmission to the PRS this is an Octet Encoding Rules (OER) string of size 25. The requestID field is assigned by the PRG. This message equates to the prgPriorityRequest defined in NTCIP 1211.

**ASN1:**

```
ScpPriorityRequest ::= SEQUENCE {  
    requestID          SCP-PriorityRequestID, -- 1octet  
    vin                CPT-VIN, -- 17octets  
    vehicleClassType   SCP-VehicleClassType, -- 1octet  
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet  
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet  
    timeOfServiceDesired  SCP-TimeInterval, -- 2octets  
    timeOfEstimatedDeparture SCP-TimeInterval, -- 2octets  
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,  
    intersectionModem   TSP-ModemPhoneNum OPTIONAL,  
    intersectionDropAddr TSP-DropAddr OPTIONAL,  
    intersectionIP       CPT-IPAddress OPTIONAL,  
    intersectionPort      CPT-UDP-TCP-PortNumber OPTIONAL,  
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL  
}
```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

### C.342 Message ScpPriorityRequestAck {Tsp 2010}

#### Use:

Acknowledge a priority request

#### Remarks:

For transmission from the PRS this is an Octet Encoding Rules (OER) string of size 25. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

#### ASN1:

```
ScpPriorityRequestAck ::= SEQUENCE {
    requestID          SCP-PriorityRequestID, -- 1octet
    vin                CPT-VIN, -- 17octets
    vehicleClassType   SCP-VehicleClassType, -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    timeOfServiceDesired SCP-TimeInterval, -- 2octets
    timeOfEstimatedDeparture SCP-TimeInterval, -- 2octets
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem  TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP      CPT-IPAddress OPTIONAL,
    intersectionPort    CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}
```

#### The following dialogs use this message:

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

### C.343 Message ScpPriorityUpdate {Tsp 2009}

#### Use:

Request a modification to a previously sent priority request.

#### Remarks:

For transmission to the PRS, this is an Octet Encoding Rules (OER) string of size 25. This message equates to the prgPriorityUpdate defined in NTCIP 1211. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

#### ASN1:

```
ScpPriorityUpdate ::= SEQUENCE {
    requestID          SCP-PriorityRequestID, -- 1octet
    vin                CPT-VIN, -- 17octets
    vehicleClassType   SCP-VehicleClassType, -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
```

```

timeOfServiceDesired      SCP-TimeInterval, -- 2octets
timeOfEstimatedDeparture  SCP-TimeInterval, -- 2octets
intersectionID            TSP-TMS-IntersectionID OPTIONAL,
intersectionModem         TSP-ModemPhoneNum OPTIONAL,
intersectionDropAddr      TSP-DropAddr OPTIONAL,
intersectionIP             CPT-IPAddress OPTIONAL,
intersectionPort           CPT-UDP-TCP-PortNumber OPTIONAL,
intersectionIdentifier     TMDD.Intersection-identifier OPTIONAL
}

```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

### C.344 Message ScpPriorityUpdateAck {Tsp 2008}

**Use:**

Acknowledge a modification to a previously sent priority request.

**Remarks:**

For transmission from the PRS, this is an Octet Encoding Rules (OER) string of size 25. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```

ScpPriorityUpdateAck ::= SEQUENCE {
    requestID          SCP-PriorityRequestID, -- 1octet
    vin                CPT-VIN, -- 17octets
    vehicleClassType   SCP-VehicleClassType, -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    timeOfServiceDesired  SCP-TimeInterval, -- 2octet
    timeOfEstimatedDeparture  SCP-TimeInterval, -- 2octet
    intersectionID      TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem   TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP       CPT-IPAddress OPTIONAL,
    intersectionPort     CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}

```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

**C.345 Message ScpStatusBuffer {Tsp 2004}****Use:**

Provide a status buffer for the PRS to use to return the status of a previously sent priority request. This message equates to the prgPriorityStatusBuffer defined in NTCIP 1211.

**Remarks:**

For transmission to the PRS, this is an Octet Encoding Rules (OER) string of size 23. This message equates to the prgPriorityStatusBuffer defined in NTCIP 1211. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```
ScpStatusBuffer ::= SEQUENCE {
    requestID           SCP-PriorityRequestID,    -- 1octet
    vin                 CPT-VIN,                  -- 17octets
    vehicleClassType   SCP-VehicleClassType,   -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel,  -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    statusForPRG        SCP-StatusForPRG,      -- 1octet
    statusCodeForPRG   SCP-StatusCodeForPRG,   -- 1octet
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem  TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP     CPT-IPAddress OPTIONAL,
    intersectionPort   CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}
```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

**C.346 Message ScpStatusBufferResponse {Tsp 2005}****Use:**

Provide the status to the PRG of a previously sent priority request.

**Remarks:**

For transmission from the PRS, this is an Octet Encoding Rules (OER) string of size 23. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```
ScpStatusBufferResponse ::= SEQUENCE {
    requestID          SCP-PriorityRequestID,    -- 1octet
    vin                CPT-VIN,           -- 17octets
    vehicleClassType   SCP-VehicleClassType,  -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
    statusForPRG       SCP-StatusForPRG,     -- 1octet
    statusCodeForPRG   SCP-StatusCodeForPRG,  -- 1octet
    intersectionID     TSP-TMS-IntersectionID OPTIONAL,
    intersectionModem  TSP-ModemPhoneNum OPTIONAL,
    intersectionDropAddr TSP-DropAddr OPTIONAL,
    intersectionIP      CPT-IPAddress OPTIONAL,
    intersectionPort    CPT-UDP-TCP-PortNumber OPTIONAL,
    intersectionIdentifier TMDD.Intersection-identifier OPTIONAL
}
```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

**C.347 Message ScpStatusControl {Tsp 2007}****Use:**

Request the PRS to prepare to provide status for a previously sent priority request.

**Remarks:**

For transmission to the PRS, this is an Octet Encoding Rules (OER) string of size 21. This message equates to the prgPriorityStatusControl defined in NTCIP 1211. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```
ScpStatusControl ::= SEQUENCE {
    requestID          SCP-PriorityRequestID,    -- 1octet
    vin                CPT-VIN,           -- 17octets
    vehicleClassType   SCP-VehicleClassType,  -- 1octet
    vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
    serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
```

```

intersectionAddress      CPT-IPAddress OPTIONAL,
intersectionID          TSP-TMS-IntersectionID OPTIONAL,
intersectionModem       TSP-ModemPhoneNum OPTIONAL,
intersectionDropAddr    TSP-DropAddr OPTIONAL,
intersectionIP           CPT-IPAddress OPTIONAL,
intersectionPort         CPT-UDP-TCP-PortNumber OPTIONAL,
intersectionIdentifier   TMDD.Intersection-identifier OPTIONAL
}

```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

### C.348 Message ScpStatusControlAck {Tsp 2006}

**Use:**

Acknowledge a request to prepare to provide status for a previously sent priority request.

**Remarks:**

For transmission from the PRS this is an Octet Encoding Rules (OER) string of size 25. The optional fields are for use ONLY between the CC and the PRG in Scenario #1 only. These fields are not included in messages to and from the PRS.

**ASN1:**

```

ScpStatusControlAck ::= SEQUENCE {
  requestID          SCP-PriorityRequestID, -- 1octet
  vin                CPT-VIN, -- 17octets
  vehicleClassType   SCP-VehicleClassType, -- 1octet
  vehicleClassLevel  SCP-VehicleClassLevel, -- 1octet
  serviceStrategyNumber SCP-PriorityStrategyNumber, -- 1octet
  intersectionAddress CPT-IPAddress OPTIONAL,
  intersectionID     TSP-TMS-IntersectionID OPTIONAL,
  intersectionModem  TSP-ModemPhoneNum OPTIONAL,
  intersectionDropAddr TSP-DropAddr OPTIONAL,
  intersectionIP      CPT-IPAddress OPTIONAL,
  intersectionPort    CPT-UDP-TCP-PortNumber OPTIONAL,
  intersectionIdentifier  TMDD.Intersection-identifier OPTIONAL
}

```

**The following dialogs use this message:**

[SCP Priority Request Scenario 1](#)  
[SCP Priority Request Scenario 2](#)  
[SCP Priority Request Scenario 4](#)

## C.349 Message SpGIS {Sp 2011}

### Use:

This message allows a transit business system to provide a minimalist set of GIS data to another subscribing business system. The message may contain the complete dataset, or only row updates.

### Remarks:

The boundary box field must be a rectangle defining the geographical extent of the map information. Features shall only be included if all or part of the feature falls into the boundary box. A legend is not provided by this structure. An implementation may create a legend that reflects the line sizes, symbology etc. used in a rendered map, based on local requirements. The requested-layers field indicates the types of features requested and provided with this message. The include-streets field is true only if the original request included a request for street information, and the information is actually provided. This message may be used to send a list of changes to a GIS version or effective date since a specified time. In such a case the update-since field shall be present & indicates the date/time from which updates are provided. The update-thru field indicates that the provided information includes all updates through the indicated date time. The deleted---s fields indicate items that were deleted from the GIS since the specified time. The absence of the layers and/or features fields indicates that the message is a row update, and that no layers or features changed (other than deletions) during the specified period. The highlights field, if present, indicates that the specified features should be highlighted when displayed on a map.

### ASN1:

```

SpGIS ::= SEQUENCE {
    header                               CPTSubscriptionHeader,
    languages                            CPTLanguageList OPTIONAL,
    version                               CPT-FileVersion,
    effective                            CPT-Datetime,
    update-thru                           CPT-Datetime,
    update-since                          CPT-Datetime OPTIONAL,
    boundary-box                         SPPolygon,
    requested-layers                     SEQUENCE (SIZE(1..200)) OF CPT-FeatureType OPTIONAL,
    include-streets                       CPT-Boolean,
    layers                                SEQUENCE (SIZE(1..200)) OF SPGISLayer OPTIONAL,
    features                              SEQUENCE (SIZE(1..20000)) OF SPFeature OPTIONAL, -- data to
                                         convey an optional associated street network agencies may elect to omit some or all streets or
                                         street segments from the map
    streets                               SEQUENCE (SIZE(1..10000)) OF LRMS.StreetInfo OPTIONAL,
    nodes                                 SEQUENCE (SIZE(1..10000)) OF LRMS.NodeAttribute OPTIONAL,
    segments                             SEQUENCE (SIZE(1..10000)) OF SPStreetSeg OPTIONAL,
    deleted-layers                      SEQUENCE (SIZE(1..200)) OF CPT-FeatureType OPTIONAL,
    deleted-features                     SEQUENCE (SIZE(1..20000)) OF SPFeature OPTIONAL,
    deleted-streets                      SEQUENCE (SIZE(1..10000)) OF LRMS.StreetInfo OPTIONAL,
    deleted-nodes                        SEQUENCE (SIZE(1..10000)) OF LRMS.NodeAttribute OPTIONAL,
    deleted-segments                     SEQUENCE (SIZE(1..10000)) OF SPStreetSeg OPTIONAL,
    highlights                           SEQUENCE (SIZE(1..10000)) OF CPTGenericIden OPTIONAL,
    ... -- # LOCAL_CONTENT
}

```

### The following dialogs use this message:

[Publish GIS Data](#)

## C.350 Message SpGISPush {Sp 2010}

### Use:

This message allows a transit business system to push a minimalist set of GIS data to another business system.

### Remarks:

The boundary box field must be a rectangle defining the geographical extent of the map information. Features shall only be included if all or part of the feature falls into the boundary box. A legend is not provided by this structure. An implementation may create a legend that reflects the line sizes, symbology etc. used in a rendered map, based on local requirements. The highlights field, if present, indicates that the specified features should be highlighted when displayed on a map.

### ASN1:

```
SpGISPush ::= SEQUENCE {
    header                      CPTPushHeader,
    languages                   CPTLanguageList OPTIONAL,
    version                     CPT-FileVersion,
    effective                  CPT-DaTeTime,
    update-thru                CPT-DaTeTime,
    boundary-box               SPPolygon,
    layers                      SEQUENCE (SIZE(1..200)) OF SPGISLayer,
    features                    SEQUENCE (SIZE(1..20000)) OF SPFeature, -- data to convey an
optional associated street network agencies may elect to omit some or all streets or street
segments from the map
    streets                     SEQUENCE (SIZE(1..10000)) OF LRMS.StreetInfo OPTIONAL,
    nodes                       SEQUENCE (SIZE(1..100000)) OF LRMS.NodeAttribute OPTIONAL,
    segments                   SEQUENCE (SIZE(1..100000)) OF SPStreetSeg OPTIONAL,
    highlights                 SEQUENCE (SIZE(1..100000)) OF CPTGenericIden OPTIONAL,
    ...  -- # LOCAL_CONTENT
}
```

### The following dialogs use this message:

[Push GIS Data](#)

## C.351 Message SpGISSub {Sp 2012}

### Use:

This message allows a transit business system to request a minimalist set of GIS data to another business system. The message may request the complete dataset, or only row updates.

### Remarks:

The boundary box field must be a rectangle defining the requested geographical extent of the map information. The requested-layers field, if present, indicates the types of features (layers) requested by the subscriber. If omitted, all layers are requested. The include-streets field indicates whether street network information is requested to accompany the GIS. This message may be used to request a list of changes to a GIS version or effective date since a specified time. In such a case the update-since field shall be present & indicates the date/time from which updates are requested.

### ASN1:

```
SpGISSub ::= SEQUENCE {
    header                  CPTSubscriptionHeader,
    languages               CPTLanguageList OPTIONAL,
    version                 CPTFileVersion,
    effective               CPT-DaTeTime,
    update-since            CPT-DaTeTime OPTIONAL,
    boundary-box            SPPolygon,
    requested-layers        SEQUENCE (SIZE(1..200)) OF CPT-FeatureType OPTIONAL,
    include-streets          CPT-Boolean
}
```

### The following dialogs use this message:

[Publish GIS Data](#)

## C.352 Message SpGeolocationData {Sp 2009}

### Use:

Push geolocation data collected in the field to a business system.

### Remarks:

### ASN1:

```
SpGeolocationData ::= SEQUENCE {
    header                  CPTPushHeader,
    languages               CPTLanguageList OPTIONAL,
    stoppoint-locations     SEQUENCE (SIZE(1..25000)) OF SPStopGeoLoc OPTIONAL,
    facility-locations      SEQUENCE (SIZE(1..1000)) OF SPFacilityGeoLoc OPTIONAL,
    timepoint-locations     SEQUENCE (SIZE(1..10000)) OF SPTimepointGeoLoc OPTIONAL,
    incident-locations      SEQUENCE (SIZE(1..100)) OF SPIncidentLocation OPTIONAL,
    pattern-segment-waypoints SEQUENCE (SIZE(1..1000)) OF SPSegmentGeolocation OPTIONAL
}
```

**The following dialogs use this message:**

[Push Geolocation Data](#)

### C.353 Message SpLocationConversion {Sp 2001}

**Use:**

Provide a list of conversions of geographical points from one type to another.

**Remarks:**

**ASN1:**

```
SpLocationConversion ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    point-conversions     SEQUENCE (SIZE(1..1000)) OF SPLocationConversionEntry
}
```

**The following dialogs use this message:**

[Publish Location Conversion](#)

### C.354 Message SpLocationConversionSub {Sp 2000}

**Use:**

Query for a conversion of a list of geographical points from one type to another.

**Remarks:**

This message is used to elicit the SpPointConversion message.

**ASN1:**

```
SpLocationConversionSub ::= SEQUENCE {
    subscriptionInfo      CPTSSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    point-requests       SEQUENCE (SIZE(1..1000)) OF SPLocationConversionRequest
}
```

**The following dialogs use this message:**

[Publish Location Conversion](#)

### C.355 Message SpMapImage {Sp 2004}

#### Use:

Convey a binary image of a map that can be used as a backdrop by a business system.

#### Remarks:

The boundaries, map-contents, highlight-items, and highlight classes fields should be identical to the fields provided in the eliciting SpMapImagesSub message unless the subscription is downgraded (e.g. because a requested feature type is unavoidable).

#### ASN1:

```
SpMapImage ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    box                  SPBoundaryBox OPTIONAL,
    range                SPBoundaryRange OPTIONAL,
    content              SPBoundaryContent OPTIONAL
}
```

#### The following dialogs use this message:

[Publish Map Image](#)

### C.356 Message SpMapImageSub {Sp 2005}

#### Use:

Request a binary image of a map that can be used as a backdrop by a business system.

#### Remarks:

The boundaries field allows the map boundary to be specified as a boundary box, as all geography within a specified range of a specified point, or to include whatever geography is required to contain a enumerated set of locations or items. The map-contents field specifies the feature types to be included on the map from the bottom layer up, thus items of feature types specified early in the list may be occluded on the rendered map by items of feature types specified later in the list. The highlight fields allow specific enumerated features or classes of features to be specified as highlighted on the map. This message is used to elicit the SpMapImage message.

#### ASN1:

```
SpMapImageSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    box                  SPBoundaryBox OPTIONAL,
    range                SPBoundaryRange OPTIONAL,
    content              SPBoundaryContent OPTIONAL
}
```

#### The following dialogs use this message:

[Publish Map Image](#)

### C.357 Message SpRouteGeoTrace {Sp 2002}

#### Use:

Provide an ordered sequence of points or directions that define the planned path of a PTV while transiting a route or part of a route.

#### Remarks:

#### ASN1:

```
SpRouteGeoTrace ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    pattern-version       SCH-TimetableVersionID OPTIONAL,
    route-schedule-version SCH-TimetableVersionID OPTIONAL,
    timepoint-version     SCH-TimetableVersionID OPTIONAL,
    stoppoint-version     CPT-StoppointVersion OPTIONAL,
    pattern               SCHPatternIden OPTIONAL,
    segments              SEQUENCE (SIZE(1..100)) OF SCHPatternSegmentIden OPTIONAL,
    trip                  SCHTripIden OPTIONAL,
    timestamp-points      SEQUENCE (SIZE(1..1000)) OF SCHTimeStoppoint OPTIONAL,
    block                 SCHBlockIden OPTIONAL,
    run                   SCHRUnIden OPTIONAL
}
```

The following dialogs use this message:

[Publish Route Geo Trace](#)

### C.358 Message SpRouteGeoTraceSub {Sp 2003}

#### Use:

Query for a geographical trace of the points or directions defining the planned path of a PTV while transiting a route or part of a route.

#### Remarks:

This message is used to elicit the SpRouteGeoTrace message.

#### ASN1:

```
SpRouteGeoTraceSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    pattern-version       SCH-TimetableVersionID OPTIONAL,
    route-schedule-version SCH-TimetableVersionID OPTIONAL,
    timepoint-version     SCH-TimetableVersionID OPTIONAL,
    stoppoint-version     CPT-StoppointVersion OPTIONAL,
    pattern               SCHPatternIden OPTIONAL,
```

```

segments          SEQUENCE (SIZE(1..100)) OF SCHPatternSegmentIden OPTIONAL,
trip             SCHTripIden OPTIONAL,
timestamp-points SEQUENCE (SIZE(1..1000)) OF SCHTimeStoppoint OPTIONAL,
block             SCHBlockIden OPTIONAL,
run               SCHRUnIden
}

```

**The following dialogs use this message:**

[Publish Route Geo Trace](#)

## C.359 Message TspBusinessRules {Tsp 2017}

### Use:

Provide business rules associated with a PTV's use of TSP to the PRG responsible for that vehicle. The PRG may be vehicle-borne or fixed.

### Remarks:

If the PRG is not on the vehicle, the rules do not include the "schedules" field. Boundaries may be identified in either the intersections or strategies field. If not present in either location, then boundary constraints do not apply. Deleted intersections can be of any type (including type-five).

### ASN1:

```

TspBusinessRules ::= SEQUENCE {
  fileHeader           CPTLoadFileHeader,
  languages            CPTLanguageList OPTIONAL,
  schedules            SEQUENCE (SIZE(1..10000)) OF TSPScheduleEntry OPTIONAL,
  boundaries           SEQUENCE (SIZE(1..10000)) OF TSPBoundaryEntry OPTIONAL,
  strategies           SEQUENCE (SIZE(1..10000)) OF TSPStrategyEntry OPTIONAL,
  intersections         SEQUENCE (SIZE(1..10000)) OF TSPIntersectionEntry OPTIONAL,
  type-fives           SEQUENCE (SIZE(1..10000)) OF TSPScenario5Intersection OPTIONAL,
  deleted-boundaries   SEQUENCE (SIZE(1..10000)) OF TSP-BoundaryID OPTIONAL,
  deleted-intersections SEQUENCE (SIZE(1..100000)) OF CPTIntersectionIden OPTIONAL,
  ... -- # LOCAL_CONTENT
}

```

**The following dialogs use this message:**

[Load TSP Business Rules](#)

### C.360 Message TspEventLogUnload {Tsp 2013}

#### Use:

Provide the history of SCP events from a PRG to the control center or data repository.

#### Remarks:

#### ASN1:

```
TspEventLogUnload ::= SEQUENCE {
    fileHeader           CPTUnloadFileHeader,
    languages            CPTLanguageList OPTIONAL,
    event-logs           SEQUENCE (SIZE(1..100000)) OF TSPEventLogEntry
}
```

The following dialogs use this message:

[Unload PRG Event Log](#)

### C.361 Message TspPRGInputsCC {Tsp 2020}

#### Use:

Used by the CAD/AVL System to provide operating status information to an external, fixed PRG.

#### Remarks:

#### ASN1:

```
TspPRGInputsCC ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages             CPTLanguageList OPTIONAL,
    vehicle               CPTVehicleIden,
    date-time             CPT-DateTime,
    intersections         SEQUENCE (SIZE(1..100000)) OF CPTIntersectionIden,
    PRGinputs             SEQUENCE (SIZE(1..500)) OF TSPPRGInputsCCEntry
}
```

The following dialogs use this message:

[Publish CC PRG Inputs](#)

### C.362 Message TspPRGInputsCCSub {Tsp 2019}

#### Use:

Used by a fixed Priority Request Generator (PRG) external to the CAD/AVL System to subscribe to required operating information.

#### Remarks:

This message is used to elicit the TspPRGInputsCC message.

#### ASN1:

```
TspPRGInputsCCSub ::= SEQUENCE {
    subscriptionInfo      CPTSubscriptionHeader,
    languages            CPTLanguageList OPTIONAL,
    intersections        SEQUENCE (SIZE(1..100000)) OF CPTIntersectionIden
}
```

The following dialogs use this message:

[Publish CC PRG Inputs](#)

### C.363 Message TspPRGInputsPTV {Tsp 2018}

#### Use:

Used by the VLU to provide operating status information to an onboard PRG, external to the VLU.

#### Remarks:

#### ASN1:

```
TspPRGInputsPTV ::= SEQUENCE {
    vehicleID          CPTVehicleIden OPTIONAL,
    currentStatus       TSPStatus
}
```

The following dialogs use this message:

[Notify Onboard PRG Inputs](#)

## Annex D - TCIP Dialogs

### D.1 Dialog Command Change Assignments

#### Use:

Change the binding of vehicle and/or operator assignments after they have already been provided.

#### Remarks:

Change the binding of vehicle and/or operator assignments after they have already been provided.

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcChangeAssignments</u></a>	Command	No
<a href="#"><u>CcChangeAssignmentsAck</u></a>	Response	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.2 Dialog Command Load PTV Trips

### Use:

Load trips assigned to a PTV. This dialog is intended for use in cases where the vehicle cannot load the entire route schedule with associated pattern, stop point, note, and time point information, such as when the agency has no wireless LAN, or the vehicle needs to receive new assigned work information outside the range of the wireless LAN.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPTVTrips</u></a>	Command	No
<a href="#"><u>CcPTVTripResponse</u></a>	Response	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

### D.3 Dialog Command Make Canned Announcement

#### Use:

Allows a dispatcher or driver to remotely trigger a predefined/recoded announcement on a PTV.

#### Remarks:

1. The canned announcement information was previously loaded to the PTV.

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcTriggerCannedAnnouncement</u></a>	Command	No
<a href="#"><u>CcTriggerCannedAnnouncementAck</u></a>	Response	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.4 Dialog Command Open Workorder

### Use:

Request a workorder to be opened to repair or maintain a piece of transit equipment.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOpenWorkorder</u></a>	Command	No
<a href="#"><u>CcOpenWorkOrderAck</u></a>	Response	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.5 Dialog Command Remote PTV Disable

### Use:

Cause a PTV's engine to shutdown due to a security problem or other incident.

### Remarks:

1. Agency policies and procedures govern the conditions under which a PTV may be remotely disabled.
2. The PTV may have a locally defined covert indicator that the vehicle has been disabled.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcRemotePTVDisable</u></a>	Command	No
<a href="#"><u>CcRemotePTVDisableAck</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.6 Dialog Command Remote PTV Enable

### Use:

Cause a PTV's engine to be enabled after a remote shutdown due to an incident.

### Remarks:

1. Agency policies and procedures govern the conditions under which PTVs may be remotely enabled/disabled.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcRemotePTVEnable</u></a>	Command	No
<a href="#"><u>CcRemotePTVEnableAck</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.7 Dialog Command Set Time

### Use:

Distribute a time update, or time offset from a business system to another business system or device.

### Remarks:

If the actual time is distributed, the network latency must be either negligible, or predictable enough to allow the controller to advance the time in the command to compensate.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptCommandTimeUpdate</u></a>	Notification	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.8 Dialog Dispatcher Initiated Voice Radio Call

### Use:

Manage a dispatcher-initiated voice radio call to a vehicle.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcDispatchCallSetup</u></a>	NotifyMDTCallStatus	No
<a href="#"><u>CcAnnunciatorCallSetup</u></a>	TurnOnAnnunciator	No
<a href="#"><u>CcCallTermination</u></a>	TurnOffAnnunciator	No
<a href="#"><u>CcDispatchCallEnd</u></a>	TerminateCall	No
<a href="#"><u>CcNotifyIncomingCall</u></a>	InitiateCall	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.9 Dialog Load Annunciation Information

### Use:

Provide the information necessary for the PTV to update its destination signs, and provide automated stop announcements. May be used to load a PTV or a proxy server that in turn loads a PTV or group of PTVs.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#">CcAnnouncementInfo</a>	DataFile	Yes
<a href="#">CptForceLoad</a>	ForceLoad	No
<a href="#">CptOnboardVersionNotice</a>	OnboardVersionNotice	No
<a href="#">CptLoadControl</a>	LoadControl	No
<a href="#">CptCurrentVersionNotice</a>	CurrentVersionNotice	No
<a href="#">CptBadLoadRequest</a>	BadLoadRequestNotice	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#">CcAnnouncementInfo</a>	destinations	CCDestinationSignMessage
<a href="#">CcAnnouncementInfo</a>	destinationSignPlanRules	CCDestinationSignRule
<a href="#">CcAnnouncementInfo</a>	stopDataSets	CCStopAnnunciationRecord
<a href="#">CcAnnouncementInfo</a>	event-announcements	PIEventAnnouncement
<a href="#">CcAnnouncementInfo</a>	cannedAnnouncements	CCCannedAnnouncementRecord
<a href="#">CcAnnouncementInfo</a>	routeWelcomeAnns	CCRouteWelcomeAnnouncement

## D.10 Dialog Load Canned Message Text

### Use:

Load the text of canned messages and associated takes to PTV-OPR or to a proxy server that in turn loads a PTV or group of PTVs. This allows canned messages to be triggered by message identifiers over narrowband links rather than sending the text of the message each time.

### Remarks:

- If a new canned message has the same identifiers as an already stored canned message, the old canned message text is replaced with new canned message text.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No
<a href="#"><u>CcCannedMessageText</u></a>	DataFile	Yes

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CcCannedMessageText</u></a>	canned-messages	CCCannedMsgDefinition
<a href="#"><u>CcCannedMessageText</u></a>	take-lists	CCTakeListItemDefinition

## D.11 Dialog Load Component Configuration Data

### Use:

Load new software into an onboard component on a PTV, or onto a Proxy Server that in turn loads components on a PTV or group of PTVs.

### Remarks:

1. The process for activating the new software version is manufacturer defined. The software may automatically load and execute on completion of this dialog, or the manufacturer may require a specific action to activate the new software.
2. The format of the information inside the data element CC-ExecutableSoftware is manufacturer defined. It is dependent on processor type operating system etc.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOnboardConfigurationData</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.12 Dialog Load Component Software

### Use:

Load new software into an onboard component on a PTV, or onto a Proxy Server that in turn loads components on a PTV or group of PTVs.

### Remarks:

1. The process for activating the new software version is manufacturer defined. The software may automatically load and execute on completion of this dialog, or the manufacturer may require a specific action to activate the new software.
2. The format of the information inside the data element CC-ExecutableSoftware is manufacturer defined. It is dependent on processor type operating system etc.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOnboardSoftware</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.13 Dialog Load GIS File

### Use:

Load the GIS and/or street network to a VLU (PTV-DAT).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcGISfile</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CcGISfile</u></a>	layers	SPGISLayer
<a href="#"><u>CcGISfile</u></a>	features	SPFeature
<a href="#"><u>CcGISfile</u></a>	streets	LRMS.StreetInfo
<a href="#"><u>CcGISfile</u></a>	nodes	LRMS.NodeAttribute
<a href="#"><u>CcGISfile</u></a>	segments	SPStreetSeg

## D.14 Dialog Load PTV Alarm Limits

### Use:

Provide default vehicle health alarm thresholds and other reporting-related configuration information to VLU on a PTV, or to a proxy server that in turn loads a PTV or group of PTVs.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPTVAlarmLimits</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CcPTVAlarmLimits</u></a>	thresholds	CCParameterThreshold
<a href="#"><u>CcPTVAlarmLimits</u></a>	manualAlarms	CCManualAlarmDefinition

## D.15 Dialog Notify PTV Polling Result

### Use:

The TCIP Polling Protocol provides a mechanism for AVL and other operating information to be extracted from each PTV on each poll cycle. This dialog conveys that polling information from the polling controller to the CAD/AVL System.

### Remarks:

1. The blind notification pattern does not require acknowledgements from the CAD/AVL System back to the controller. The message rate to the CAD/AVL System can be very high depending on radio system parameters and capacity.
2. TCIP messages exchanged using the TCIP Polling Protocol are not part of this dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPollResults</u></a>	Notification	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.16 Dialog Notify Trip Cancellations

### Use:

Allow the control center to cancel trips that were previously scheduled. Trips may be cancelled for specific dates, specific dates, or for the current date.

### Remarks:

1. Notifier and receiver already have the schedule.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcCancelTrips</u></a>	Notification	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.17 Dialog Operator Initiated Voice Call

### Use:

This dialog defines the process to use TCIP for the PTV operator to request that a voice communications connection be established with the dispatcher.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOperatorCallRequest</u></a>	CallRequestToCentral	No
<a href="#"><u>CcAcceptCallRequest</u></a>	CentralCallAccept	No
<a href="#"><u>CcCallTermination</u></a>	CentralTerminateCall	No
<a href="#"><u>CcDenyCallRequest</u></a>	CentralCallDeny	No
<a href="#"><u>ObVoiceRequest</u></a>	OnboardCallRequest	No
<a href="#"><u>ObVoiceRequestProgress</u></a>	OnboardCallStatus	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.18 Dialog Publish Adherence Performance

### Use:

Provide information on historical schedule adherence from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcAdherencePerformanceSub</u></a>	Request	No
<a href="#"><u>CcAdherencePerformance</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.19 Dialog Publish Cc J-1939 Fault Codes

### Use:

Provide information to convey J1939 Diagnostic Trouble Codes.

### Remarks:

Provide information to convey J1939 Diagnostic Trouble Codes.

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcJ1939FaultCodeListSub</u></a>	Request	No
<a href="#"><u>CcJ1939FaultCodeList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.20 Dialog Publish Daily Operating Data

### Use:

Allow a business system to query data from a data store that originated from a PTV.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOperatingDataSub</u></a>	Request	No
<a href="#"><u>CcOperatingData</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.21 Dialog Publish Differential GPS Data

### Use:

Provide the capability for a Transit Business System or component to subscribe to differential GPS correction data.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcDGPSSub</u></a>	Request	No
<a href="#"><u>CcDGPS</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.22 Dialog Publish Fleet Health Alarms

### Use:

Allows a subscriber to obtain health alarms from PTVs by subscribing through a single business system (e.g. CAD/AVL) rather than subscribing to each PTV individually.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcFleetHealthAlarmSub</u></a>	Request	No
<a href="#"><u>CcFleetHealthAlarm</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.23 Dialog Publish Fleet Locations

### Use:

Allows a subscriber to obtain PTV locations by subscribing through a single business system (e.g. CAD/AVL) rather than subscribing to each PTV individually.

### Remarks:

1. The definition of an “event” that triggers a report may be locally defined, and may include a minimum duration between reports.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcFleetLocationSub</u></a>	Request	No
<a href="#"><u>CcFleetLocation</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.24 Dialog Publish Fleet Mechanical Data

### Use:

Provide a mechanism for a business system to obtain historical fleet mechanical information from another business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcFleetMechanicalDataSub</u></a>	Request	No
<a href="#"><u>CcFleetMechanicalData</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.25 Dialog Publish Fleet Passenger Data

### Use:

Provide a mechanism for a business system to obtain historical passenger count information from another business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcFleetPassengerDataSub</u></a>	Request	No
<a href="#"><u>CcFleetPassengerData</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.26 Dialog Publish PTV Adherence

### Use:

Provide the capability for a Transit Business System to subscribe to exception-based route and schedule adherence data for a vehicle.

### Remarks:

1. Adherence parameters may be customized by the subscriber by including them in the Publication request, customized limits may be modified by sending a subsequent Publication request with the same request identifier value specifying new custom parameters.
2. If the Publication request does not specify custom adherence parameters, the parameters are obtained from the Load PTV Alarm Limits dialog (CcPTVAlarmLimits message).
3. Adherence parameters govern whether the vehicle is off route, what reporting rate(s) should be used while off route, and the criteria for detecting that the PTV is back on route.

### Dialog Contents

Message	Role	File Transfer
<a href="#">CcPTVAdherenceSub</a>	Request	No
<a href="#">CcPTVAdherence</a>	Response	No
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.27 Dialog Publish PTV Health Alarms

### Use:

Provide the capability for a Transit Business System to subscribe to exception-based health information from a vehicle.

### Remarks:

1. Alarm limits may be customized for an individual subscriber by including them in the Publication request, customized limits may be modified sending a subsequent Publication request with the same request identifier value specifying new custom limits.
2. Parameters that do not have specified customized alarm limits, are monitored based on default alarm limit values provided by the “Load PTV Alarm Limits” dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPTVehicleAlarmSub</u></a>	Request	No
<a href="#"><u>CcPTVehicleAlarm</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.28 Dialog Publish PTV Parameters

### Use:

Provide the capability for a Transit Business System to subscribe to periodic onboard parameter reporting.

### Remarks:

1. The Publication can be modified-update period changed, parameters to be monitored added or deleted, by sending a new Cc-PTVehicleParameterSub message with the same request identifier and the new period and parameter list.

### Dialog Contents

Message	Role	File Transfer
<a href="#">CcPTVehicleParameterSub</a>	Request	No
<a href="#">CcPTVehicleParameter</a>	Response	No
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.29 Dialog Publish PTV-AVL

### Use:

Provide vehicle location and other real-time information from the PTV-LOC to the control center (CAD).

### Remarks:

1. The control center initiates the subscription based on locally or vendor defined criteria, such as vehicle start up or operator sign-on. Similarly the control center may cancel the subscription by sending a CcLocationReportSub based on operator sign-off or vehicle shutdown.
2. Normally this dialog will not be used with the TCIP Polling Protocol.
3. By prior arrangement, the CcLocationReport message may be sent to a preconfigured fixed application, at a preconfigured rate by the vehicle application.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcLocationReportSub</u></a>	Request	No
<a href="#"><u>CcLocationReport</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.30 Dialog Publish PTV-Poll Parameters

### Use:

This dialog is used by the TCIP Polling Controller to subscribe to information from the CAD/AVL System used in Polling PTVs. The information includes:

1. What parameters should be requested from the PTV(s) on each poll, and

What agency-specific information (if any) should be conveyed to the PTV with the poll.

### Remarks:

1. The publisher may be a CAD/AVL System (CAD).

The subscriber may be a TCIP Polling Controller (POL).

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPollParametersSub</u></a>	Request	No
<a href="#"><u>CcPollParameters</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.31 Dialog Publish Short Location

### Use:

Provide the capability for a Transit Business System or component to subscribe to location data in an abbreviated format.

### Remarks:

By prior arrangement, the CcLR message may be sent to a preconfigured fixed application, at a preconfigured rate by the vehicle application. The data provided by this dialog may not be sufficient to support the Publish Fleet Location dialog, therefore caution should be exercised when planning to use this dialog as a data source for "Publish Fleet Location"

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No
<a href="#"><u>CcLRSUB</u></a>	Request	No
<a href="#"><u>CcLR</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.32 Dialog Publish Traveler Request Log

### Use:

Convey a log of traveler requests from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcTravelerRequestLogSub</u></a>	Request	No
<a href="#"><u>CcTravelerRequestLog</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

### D.33 Dialog Publish Video Feed

#### Use:

Allows a subscriber to obtain one or more video feed(s) from a security camera or cameras. Feed may be live, or may be requested to start at a designated time.

#### Remarks:

Since the feed is a series of images-the subscription must be periodic.

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcVideoFeedSub</u></a>	Request	No
<a href="#"><u>CcVideoFeed</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.34 Dialog Publish Video Images

### Use:

Allows a business system to query images from a data store that originated from a PTV or PTSF.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcVideoImagesSub</u></a>	Request	No
<a href="#"><u>CcVideoImages</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.35 Dialog Push Differential GPS Data

### Use:

Push differential GPS corrections from a business system to another business system or component.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcDGPSPush</u></a>	DataFile	No
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.36 Dialog Push Traveler Request Log

### Use:

Convey a log of traveler requests from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcTravelerRequestLogPush</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.37 Dialog Report Cancel Detour

### Use:

Cancel a detour previously placed in effect using the Report Detour dialog.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcCancelDetour</u></a>	Report	No
<a href="#"><u>CcCancelDetourAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.38 Dialog Report Detour

### Use:

Notify a PTV or agency business system that a detour is in effect.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcNotifyDetour</u></a>	Report	No
<a href="#"><u>CcDetourAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.39 Dialog Report Dispatch Message

### Use:

Provide a canned or text message from the dispatcher to the vehicle operator.

### Remarks:

1. This dialog is not intended to send messages to the entire fleet.
2. Some vendors may not provide a negative acknowledgement capability. In this case the operators acknowledgement always results in a positive acknowledgement.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcDispatchMessage</u></a>	Report	No
<a href="#"><u>CcDispatchMessageAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.40 Dialog Report Operator Alarm

### Use:

Allow a vehicle operator to manually trigger a report of an alarm condition, by picking from a list of alarm conditions.

### Remarks:

1. Alarm identifier values and text labels are provided to the VLU/MDT using the “Load PTV Alarm Limits” dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcManualAlarm</u></a>	Report	No
<a href="#"><u>CcAckManualAlarm</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.41 Dialog Report Operator Message

### Use:

Provide a canned or text message from the vehicle operator to the dispatcher.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOperatorMessage</u></a>	Report	No
<a href="#"><u>CcOperatorMessageAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.42 Dialog Report Operator Sign-Off

### Use:

Notify the control center that the operator signed off from a vehicle

### Remarks:

1. The operator has previously signed on to the MDT.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOperatorSignOff</u></a>	Report	No
<a href="#"><u>CcOperatorSignOffAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.43 Dialog Report Operator Sign-On

### Use:

Notify the control center that an operator signed onto a vehicle.

### Remarks:

Operator may log on manually or using a smart card. Agencies may allow a default or supervisor logon as well as driver logon.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcOperatorSignOn</u></a>	Report	No
<a href="#"><u>CcOperatorSignOnAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.44 Dialog Report Passenger Alarm

### Use:

Notify the dispatcher or other designated employee of a passenger-initiated alarm condition.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPassengerAlarm</u></a>	Report	No
<a href="#"><u>CcPassengerAlarmAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.45 Dialog Report Pull Ins

### Use:

The garage supervisor reports that one or more pull-ins occurred.

### Remarks:

1. This dialog may be used for the initial report from a garage supervisor to a business system, or from one business system to another.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcReportPullIns</u></a>	Report	No
<a href="#"><u>CcReportPullInsAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.46 Dialog Report Pull Outs

### Use:

The garage supervisor reports that one or more pull-outs occurred.

### Remarks:

1. This dialog can be used for the initial report by the Garage Supervisor to a business system, or from one business system to another.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcReportPullOuts</u></a>	Report	No
<a href="#"><u>CcReportPullOutsAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.47 Dialog Report Service Event

### Use:

Report an exception event that occurs in service.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcReportServiceEvent</u></a>	Report	No
<a href="#"><u>CcReportServiceEventAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.48 Dialog Report Train Initialization

### Use:

A train reports an initialization event n to a preconfigured central system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcReportTrainInitialization</u></a>	Report	No
<a href="#"><u>CcReportTrainInitializationAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.49 Dialog Report Train Passage

### Use:

A train detector reports the passage of a train to a preconfigured central system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcReportTrainPassage</u></a>	Report	No
<a href="#"><u>CcReportTrainPassageAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.50 Dialog Report Train Termination

### Use:

A train reports an termination event n to a preconfigured central system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcReportTrainTermination</u></a>	Report	No
<a href="#"><u>CcReportTrainTerminationAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.51 Dialog Report Traveler Alarm

### Use:

Notify the dispatcher or other designated employee of a traveler-initiated alarm condition in a PTSF.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcTravelerAlarm</u></a>	Report	No
<a href="#"><u>CcTravelerAlarmAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.52 Dialog Report Vehicle Inspection

### Use:

The PTV Operator or garage supervisor reports to the designated business systems that a PTV assigned to service has been inspected and is or is not ready for service.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPTVInspection</u></a>	Report	No
<a href="#"><u>CcPTVInspectionAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.53 Dialog Report Vehicle Shut Down

### Use:

Report that the vehicle's engine was shutdown.

### Remarks:

1. The VLU (PTV-HEL) detects that the vehicle has shut down, but continues to operate for some period of time, executes this dialog, and optionally performs other vendor-defined activities and housekeeping.
2. If the vehicle is restarted after this dialog is initiated, the VLU/MDT initiates the “Report Vehicle Startup” dialog, and aborts this dialog.
3. Manufacturer defined recovery procedures are followed if the CcVehicleShutdownAck message is not received.
4. This dialog may be used by a business system to report (relay) vehicle shutdown events to another business system.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcVehicleShutdownReport</u></a>	Report	No
<a href="#"><u>CcVehicleShutdownAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.54 Dialog Report Vehicle Startup

### Use:

Report that the vehicle's engine was started.

### Remarks:

1. VLU/MDT may already be operating, or may start up as a result of the engine starting, or may start up independently of the engine. All 3 of these cases trigger this dialog.
2. If the "Report Vehicle Shutdown" dialog is in progress, it is aborted and this dialog initiated.
3. Manufacturer-defined recovery procedures are followed if the CcVehicleStartupAck message is not received.
4. This dialog may be used by a business system to report (relay) a vehicle's shutdown to another business system.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcVehicleStartupReport</u></a>	Report	No
<a href="#"><u>CcVehicleStartupAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.55 Dialog Report Work Order Assignment

### Use:

Assign an open work order, and transfer the work order to the assignee.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcWorkOrderAssign</u></a>	Report	No
<a href="#"><u>CcWorkOrderAssignAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.56 Dialog Report Work Order Update

### Use:

Provide an update to a work order form the person to whom the work order is assigned.

### Remarks:

1. Reporter was previously assigned the work order using the Report Work Order Assignment dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcWorkOrderUpdate</u></a>	Report	No
<a href="#"><u>CcWorkOrderUpdateAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.57 Dialog Request Transfer Connection Protection

### Use:

Allow a traveler to request that a transfer be protected by having the PTV to be transferred to held at a stoppoint.

### Remarks:

1. PTV to be transferred to will only wait until a specified time, to ensure service is not unduly disrupted due to no-shows or excessively late requester.
2. Promised wait-until time in the approval message may be earlier than the wait-until time in the instruction (wait) message to reduce the complaint rate.
3. The requester, control center, and ‘waiter’ PTV all log information related to the request.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcConnProtReq</u></a>	Request	No
<a href="#"><u>CcConnProtWait</u></a>	Instruction	No
<a href="#"><u>CcConnProtAck</u></a>	Acknowledgement	No
<a href="#"><u>CcConnProtAppr</u></a>	Approval	No
<a href="#"><u>CcConnProtDeny</u></a>	Denial	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.58 Dialog Request Wheelchair Pickup

### Use:

Allow a traveler to request that a properly equipped PTV plan to pickup a wheelchair passenger at a designated stoppoint.

### Remarks:

1. Control Center will only assign to lift equipped/operational PTVs.
2. If multiple routes are serviced by the stoppoint, the route on which the traveler wants to ride is specified in the request.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcWheelchairReq</u></a>	Request	No
<a href="#"><u>CcWheelchairPickup</u></a>	Instruction	No
<a href="#"><u>CcWheelchairAck</u></a>	Acknowledgement	No
<a href="#"><u>CcWheelchairAppr</u></a>	Approval	No
<a href="#"><u>CcWheelchairDeny</u></a>	Denial	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.59 Dialog Unload PTV Performance Data

### Use:

Unload data on the performance of the PTV from the onboard component to the fixed component.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcPTVPerformanceData</u></a>	DataFile	Yes
<a href="#"><u>CptForceUnload</u></a>	ForceUnload	No
<a href="#"><u>CptFilesToUnload</u></a>	AvailableFilesToUnload	No
<a href="#"><u>CptUnloadControl</u></a>	UnloadControl	No
<a href="#"><u>CptUnloadRequestError</u></a>	BadUnloadRequestNotice	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.60 Dialog Unload Video Images

### Use:

Unload video camera images from the onboard/field component to the fixed component which may be a Data Repository (DR), or an Authorized Business System (ABS).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CcUnloadImages</u></a>	DataFile	Yes
<a href="#"><u>CptForceUnload</u></a>	ForceUnload	No
<a href="#"><u>CptFilesToUnload</u></a>	AvailableFilesToUnload	No
<a href="#"><u>CptUnloadControl</u></a>	UnloadControl	No
<a href="#"><u>CptUnloadRequestError</u></a>	BadUnloadRequestNotice	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.61 Dialog Publish Block Subset Definitions

### Use:

Define and/or update block (vehicle assignment) group definitions. This allows the group to be identified jointly rather than as an enumerated list in future references.

### Remarks:

Define and/or update block (vehicle assignment) group definitions. This allows the group to be identified jointly rather than as an enumerated list in future references.

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchBlockSubsetsSub</u></a>	Request	No
<a href="#"><u>SchBlockSubsets</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchBlockSubsets</u></a>	defined-groups	SCHBlockSubsetsGroup

## D.62 Dialog Publish Employee List

### Use:

Allow a subscriber to obtain a list of employees and associated information.

### Remarks:

1. This dialog may be used to obtain updates to a previously obtained list.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptEmployeeListSub</u></a>	Request	No
<a href="#"><u>CptEmployeeList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CptEmployeeList</u></a>	employees	CPTEmployee

## D.63 Dialog Publish Facilities

### Use:

Obtain a list of transit facilities. Transit facilities are referenced through the CPT-TransitFacilityID data Element.

### Remarks:

1. Facilities can be any type of structure (garage, parking lot, office building) but do not include stop point shelters unless they are specifically requested.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptTransitFacilitiesSub</u></a>	Request	No
<a href="#"><u>CptTransitFacilities</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.64 Dialog Publish Fleet Subset Definitions

### Use:

Define and/or update PTV group definitions. This allows the group to be identified jointly rather than as an enumerated list in future references - for example as the applicable scope of a data load.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptFleetSubsetsSub</u></a>	Request	No
<a href="#"><u>CptFleetSubsets</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CptFleetSubsets</u></a>	defined-groups	CPTFleetSubsetGroup

## D.65 Dialog Publish Shelters

### Use:

Allow a subscriber to obtain a list of shelters for a specified set of stoppoints, or transit facilities

### Remarks:

1. This dialog may be used to obtain updates to a previously obtained list since a specified date/time.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptShelterListSub</u></a>	Request	No
<a href="#"><u>CptShelterList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CptShelterList</u></a>	shelters	CPTShelter

## D.66 Dialog Publish Stoppoint List

### Use:

Allows a subscriber to obtain Stoppoint information for a specified Stoppoint version number. The subscriber can determine the required Stoppoint version number using the Publish Master Schedule Version dialog.

### Remarks:

This dialog may be used to request updates to a stoppoints list since a specified date/time, if the subscriber has previously obtained the complete stoppoints file with the specified version number.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptStoppointListSub</u></a>	Request	No
<a href="#"><u>CptStoppointList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CptStoppointList</u></a>	stoppoints	CPTStoppoint

## D.67 Dialog Publish Stoppoint Subset Definitions

### Use:

Define and/or update stoppoint group definitions. This allows the group to be identified jointly rather than as an enumerated list in future-references - for example as the applicable scope of a data load.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptStoppointSubsetsSub</u></a>	Request	No
<a href="#"><u>CptStoppointSubsets</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CptStoppointSubsets</u></a>	defined-groups	CPTStoppointSubsetGroup

## D.68 Dialog Publish Transfer Cluster List

### Use:

Define and/or update PTV group definitions. This allows the group to be identified jointly rather than as an enumerated list in future references - for example as the applicable scope of a data load.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptTransferClusterListSub</u></a>	Request	No
<a href="#"><u>CptTransferClusterList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>CptTransferClusterList</u></a>	clusters	CPTTransferCluster

## D.69 Dialog Publish Vehicle Inventory

### Use:

Allows a subscriber to obtain a list of vehicle information for specified vehicles, or garages. The subscriber can obtain a list of all vehicles by not specifying a list of vehicles, or garages.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptVehicleInventoryListSub</u></a>	Request	No
<a href="#"><u>CptVehicleInventoryList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.70 Dialog Publish Watchdog Timer

### Use:

Allow a business system to verify that another business system is up and running “alive”.

### Remarks:

1. The subscriber monitors the responses resetting an internal timer after each response and implements locally defined recovery mechanisms if the publisher does not respond as scheduled.
2. Good practice is for the subscriber to maintain an internal timer interval of {2\*(subscription interval) + latency}, where subscription interval is the periodic reporting rate, and latency is the worst case expected one-way network delay between the publisher and subscriber. This practice prevents excessive false alarms.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptWatchdogTimerSub</u></a>	Request	No
<a href="#"><u>CptWatchdogTimer</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.71 Dialog Command Disable Fare Equipment

### Use:

Stop the operation of a piece or pieces of fare equipment. There are two variations cease operating, and free mode. Cease operating causes the equipment to simply go out of service. Free mode causes a device to make it free to ride - not all equipment is capable of free mode operation.

### Remarks:

1. If supported by the agency architecture, the dialog can be used with a station controller so that one command affects multiple pieces of equipment in a stoppoint. Alternatively the dialog can be used with individual fare equipment, however in that case separate commands are required for each piece of equipment.
2. The dialog can be used between the station controller and the fare equipment. In this case a single command to the station controller may result in multiple commands from the station controller to individual pieces of equipment.
3. The dialog can be used with vehicle borne fare equipment including fareboxes or ticket validators.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcCommandDisableEquip</u></a>	Command	No
<a href="#"><u>FcCommandDisableEquipAck</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.72 Dialog Command Enable Fare Equipment

### Use:

Enable the operation of a piece or pieces of fare equipment.

### Remarks:

1. If supported by the agency architecture, the dialog can be used with a station controller so that one command affects multiple pieces of equipment in a stoppoint. Alternatively the dialog can be used with individual fare equipment, however in that case separate commands are required for each piece of equipment.
2. The dialog can be used between the station controller and the fare equipment. In this case a single command to the station controller may result in multiple commands from the station controller to individual pieces of equipment.
3. The dialog can be used with vehicle borne fare equipment including fareboxes or ticket validators.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcCommandEnableEquip</u></a>	Command	No
<a href="#"><u>FcCommandEnableEquipAck</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.73 Dialog Load Fare Collection Data

### Use:

Load the fare collection policies and fares to the onboard fare collection system, or to a proxy server which in turn loads the PTV or a group of PTVs.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No
<a href="#"><u>FcFareLoadData</u></a>	DataFile	Yes

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.74 Dialog Publish Daily Revenue Data

### Use:

Allow a business system to query data from a data store that originated from PTV or Stoppoint-based fare collection component.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcRevenueDataSub</u></a>	Request	No
<a href="#"><u>FcRevenueData</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.75 Dialog Publish Fare Collection Health

### Use:

Provide the capability for a Transit Business System to subscribe to exception-based health information from a vehicle's onboard fare collection system.

### Remarks:

1. Fare Collection equipment preparation for shut-down.
2. Change in fare collection equipment health status.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcFareHealthSub</u></a>	Request	No
<a href="#"><u>FcFareHealth</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.76 Dialog Publish Fare Equipment Subset Definitions

### Use:

Define and/or update fare equipment group definitions. This allows the group to be identified jointly rather than as an enumerated list in future references for example the applicable scope of a data load.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcEquipmentSubsetsSub</u></a>	Request	No
<a href="#"><u>FcEquipmentSubsets</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>FcEquipmentSubsets</u></a>	defined-groups	FCEquipmentGroup

## D.77 Dialog Publish Fare Passenger Data

### Use:

Provide passenger count data extracted from fare data.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcPassengerDataSub</u></a>	Request	No
<a href="#"><u>FcPassengerData</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.78 Dialog Publish Fare Zones

### Use:

Provide fare zone definitions from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcFareZonesSub</u></a>	Request	No
<a href="#"><u>FcFareZones</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.79 Dialog Push Fare Data

### Use:

Push fare policy data from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcFareDataPush</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.80 Dialog Push Fare Zones

### Use:

Allow fare zone definitions created in one business system to be transferred to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcFareZonePush</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.81 Dialog Report Cashbox Event

### Use:

Report a cashbox event from the farebox to a business system, or from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcReportCashboxEvent</u></a>	Report	No
<a href="#"><u>FcReportCashboxEventAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.82 Dialog Report Cashbox Reconciliation

### Use:

Provide a report of cashbox reconciliation(s) from one business system to another.

### Remarks:

1. Reporter does not delete reconciliation information until an acknowledgement is received.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcReportReconcileCashbox</u></a>	Report	No
<a href="#"><u>FcReportReconcileCashboxAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.83 Dialog Report Farebox Validation Error

### Use:

Notify a data repository, or other agency fare collection business system of a farebox data validation failure.

### Remarks:

This dialog is part of the Fare Collection business area. The TCIP Task Force, responsible for TCIP development, has determined that the interfaces defined by the Fare Collection business area are not mature enough to be recommended for balloting and implementation. Messages and dialogs defined in the Fare Collection business area are for information only. These message and dialogs may be used as the basis for future TCIP development.

### Dialog Contents

Message	Role	File Transfer
<a href="#">FcReportValidationErrors</a>	Report	No
<a href="#">FcReportValidationErrorsAck</a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.84 Dialog Report Vault Event

### Use:

Report an event related to a vault removal, insertion etc.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcReportVaultEvent</u></a>	Report	No
<a href="#"><u>FcReportVaultEventAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.85 Dialog Unload Fare Collection Data

### Use:

Unload data on fare collection events from the onboard or field component (fare collection equipment) to a business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>FcUnloadData</u></a>	DataFile	Yes
<a href="#"><u>CptForceUnload</u></a>	ForceUnload	No
<a href="#"><u>CptFilesToUnload</u></a>	AvailableFilesToUnload	No
<a href="#"><u>CptUnloadControl</u></a>	UnloadControl	No
<a href="#"><u>CptUnloadRequestError</u></a>	BadUnloadRequestNotice	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.86 Dialog Command Dispatch Incident Response

### Use:

Direct a transit person, team or equipment to respond to an incident. Dispatch may be to an indoor or outdoor location. Dispatched entities may include supervisors, janitors, maintenance crews, safety investigators, etc.

### Remarks:

1. The incident has previously been reported/detected and an incident report has been created in the CAD/AVL System.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ImCommandIncidentResponseAck</u></a>	Command	No
<a href="#"><u>ImCommandIncidentResponse</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.87 Dialog Covert Alarm

### Use:

Provide a means for a PTV operator to covertly notify the dispatcher of an emergency situation

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ImSilentAlarm</u></a>	Alarm	No
<a href="#"><u>ImSilentAlarmAck</u></a>	AlarmAcknowledge	No
<a href="#"><u>ImAlarmCancel</u></a>	AlarmCancel	No
<a href="#"><u>ImSilentAlarmClose</u></a>	AlarmClose	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.88 Dialog Publish Incident Report History

### Use:

Distribute information on current or past incidents from the CAD/AVL system or data repository to interested parties within the agency.

### Remarks:

1. The publisher determines whether the subscriber is authorized to have the incident information based upon agency policies.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>I_mIncidentHistorySub</u></a>	Request	No
<a href="#"><u>I_mIncidentHistory</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.89 Dialog Publish Incidents

### Use:

Distribute active incident information from a business system (e.g. Transit Security) to interested parties within the agency.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ImlIncidentListSub</u></a>	Request	No
<a href="#"><u>ImlIncidentList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.90 Dialog Report Incident

### Use:

Notify the dispatcher or other designated employee of an incident.

### Remarks:

1. Used by a transit employee to initially report an incident to the dispatcher.
2. Agency/vendor defined procedures govern the recovery if the ImInitialReportAck message is not received.
3. Agency policies determine whether the receiving business system acknowledges the report automatically, or if a designated employee must manually acknowledge the report.
4. Agency/vendor defined procedures apply for identifying and handling duplicate incident reports from different sources within the receiving business system.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ImInitialIncidentReport</u></a>	Report	No
<a href="#"><u>ImInitialReportAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.91 Dialog Report Incident Update

### Use:

Notify the dispatcher or other designated employee of an update to an incident.

### Remarks:

1. Optional fields in the incident report are filled in only if they have changed.
2. The employee's user device already has a copy of the incident information, either as a result of the Report Incident dialog, or as a result of the SubscribeIncidents dialog.
3. Agency policies govern whether the receiving business system acknowledges the update automatically, or if a designated employee must manually acknowledge the update.
4. Agency/vendor defined procedures govern the recovery if the ImUpdateAck message is not received.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ImIncidentUpdate</u></a>	Report	No
<a href="#"><u>ImUpdateAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.92 Dialog Notify Start of Trip

### Use:

Notify an onboard component of trip information at the start of a trip.

### Remarks:

1. VLU (PTV-DAT) knows the identity of any components that need this notification, via a configuration parameter.
2. Components requiring this notification are up and running and ready to receive data at the start of the trip.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ObNotifyTripStart</u></a>	Notification	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.93 Dialog Publish Onboard Location

### Use:

Provide PTV location information to components onboard the PTV.

### Remarks:

1. Maximum duration between updates is locally defined.
2. This is an event based subscription. Updates are generated by the publisher when: the PTV reaches a timepoint, when the PTV arrives at a stop point, when the PTV departs a stop point, and if the maximum duration between reports elapses.
3. The publisher may send a CptSubErrorNotice to the subscriber and terminate the dialog upon detecting a vehicle shutdown in progress.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ObLocationSub</u></a>	Request	No
<a href="#"><u>ObLocation</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.94 Dialog Publish Onboard Passenger Count

### Use:

Provide PTV passenger count information to components onboard the PTV. Applies only to PTV's with passenger counting equipment installed.

### Remarks:

1. Maximum duration between updates is locally defined.
2. The Publisher may send a CptSubErrorNotice to the subscriber and terminate the dialog upon detecting a vehicle shutdown in progress.
3. Not all PTV's have passenger counting capability. On vehicles which do have passenger counters, the sensors may be "tied into" the fare collection equipment, VLU, or a stand alone device. The component to which the passenger counter sensors are tied in acts as the publisher in this dialog.
4. If PTV-PAS is connected to the Vehicle Area Network, it also publishes the onboard passenger count via the VAN.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ObPassengerCountSub</u></a>	Request	No
<a href="#"><u>ObPassengerCount</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.95 Dialog Publish Operator Sign On

### Use:

Provide onboard components with the capability to share logon/logoff information and create a single vehicle logon.

### Remarks:

1. The MDT-PTV-OPR may be provided by any onboard system vendor (e.g. VLU, fare collection).
  2. This is an event-based subscription.
  3. The publisher may send a CptSubErrorNotice to terminate the dialog upon detecting initiation of vehicle shutdown.
  4. The sign on and sign off screens are MDT-vendor dependent.
5. Operators may log on manually or using a smart card. Agencies may allow a default or supervisor logon as well as driver logon.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ObSignonSub</u></a>	Request	No
<a href="#"><u>ObSignon</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.96 Dialog Publish Wireless LAN Status

### Use:

Allows an authorized onboard component to determine whether the vehicle has a currently active wireless LAN connection to the fixed side. This knowledge allows onboard applications to contact their fixed counterparts to arrange loads/unloads.

### Remarks:

1. The onboard component and the corresponding fixed applications deal with load/unload initiation/termination external to this dialog. This includes recovery from loss of WLAN coverage during an load or unload.
2. The publisher may send a CptSubErrorNotice to terminate the dialog upon detecting initiation of vehicle shutdown.

### Dialog Contents

Message	Role	File Transfer
<a href="#">ObWLANStatusSub</a>	Request	No
<a href="#">ObWLANStatus</a>	Response	No
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.97 Dialog Report Menu Selection

### Use:

Allow any onboard component to use the Mobile Data Terminal (PTV-OPR) to display a message to the vehicle operator, and obtain a multiple choice “menu” response.

### Remarks:

1. The menu selection can be as simple as a single “ok” button, “ok” or “cancel”, or could be a multiple choice selection with up to 10 choices.
2. The appearance of the display is not specified, and may vary among MDT models and manufacturers.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ObNotifyMenu</u></a>	Report	No
<a href="#"><u>ObMenuResponse</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.98 Dialog Report Onboard Component Health

### Use:

Provide an indication of ITS equipment health from one onboard component to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ObReportHealth</u></a>	Report	No
<a href="#"><u>ObReportHealthAck</u></a>	Acknowledgement	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.99 Dialog Command Send Mailing

### Use:

Instruct a publisher (controlled device) to send a printed mailing to a customer.

### Remarks:

1. The controller has previously determined the available printed mailings using the “Publish Available Mailings” dialog
2. The process for identifying traveler/mailing requested is vendor/agency defined.
3. The process for initiating the mailing activity is agency/vendor defined.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiSendMailing</u></a>	Command	No
<a href="#"><u>PiMailingResponse</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.100 Dialog Publish Accessibility

### Use:

Provide a list of accessibility definitions to an authorized subscriber.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiAccessibilityListSub</u></a>	Request	No
<a href="#"><u>PiAccessibilityList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.101 Dialog Publish Agency Profiles

### Use:

Allow an authorized subscriber to obtain information about transit agencies.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiAgencyListSub</u></a>	Request	No
<a href="#"><u>PiAgencyList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.102 Dialog Publish Agency Static Files

### Use:

Allow an authorized subscriber to obtain publicly available static files published by transit agencies.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiAgencyFilesSub</u></a>	Request	No
<a href="#"><u>PiAgencyFiles</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.103 Dialog Publish Amenities

### Use:

Allow a subscriber to obtain a list of amenities for a specified set of stoppoints, routes, or transit facilities.

### Remarks:

1. This dialog may be used to obtain updates to a previously obtained list since a specified date/time (row updates).

### Dialog Contents

Message	Role	File Transfer
<a href="#">PiAmenitiesListSub</a>	Request	No
<a href="#">PiAmenitiesList</a>	Response	Yes
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#">PiAmenitiesList</a>	amenities	PIAmenity

## D.104 Dialog Publish Announcements

### Use:

Allow an authorized subscriber to obtain published announcements related to agencies, zones, routes, or stoppoints.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiAnnouncementsListSub</u></a>	Request	No
<a href="#"><u>PiAnnouncementsList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.105 Dialog Publish Available Mailings

### Use:

Allows a subscriber to determine what printed mailing materials are available to transit customers for specified routes.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiMailingListSub</u></a>	Request	No
<a href="#"><u>PiMailingList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.106 Dialog Publish Customer Profile

### Use:

Retrieve an existing customer profile for review or to be updated.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiProfileSub</u></a>	Request	No
<a href="#"><u>PiProfile</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.107 Dialog Publish Directions

### Use:

Allow a business system, or a passenger information device such as a kiosk to request directions from one place to another. Directions may include a transit itinerary, or may be limited to walking directions

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiDirectionsSub</u></a>	Request	No
<a href="#"><u>PiDirections</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.108 Dialog Publish Found Items

### Use:

Allows a subscriber to determine what found items match a list of reported lost items.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiFoundItemsSub</u></a>	Request	No
<a href="#"><u>PiFoundItems</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.109 Dialog Publish GTFS Timetable Data

### Use:

Allows a subscriber to obtain the current GTFS Data.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#">PiGTFSDataSub</a>	Request	No
<a href="#">PiGTFSData</a>	Response	No
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.110 Dialog Publish Gate Bay Assignments

### Use:

Allows a subscriber to obtain gate/bay assignment information for a vehicle that is visiting a stoppoint.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiGateBayAssignmentListSub</u></a>	Request	No
<a href="#"><u>PiGateBayAssignmentList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.111 Dialog Publish Geographic Zones

### Use:

Provide a list of geographical zone definitions to an authorized subscriber.

### Remarks:

Some examples of geographical zone types include: city, county, zip code, state, service area, ADA boundary, neighborhood, urban growth boundary, cleaning boundary, census boundary, etc.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiGeoZoneListSub</u></a>	Request	No
<a href="#"><u>PiGeoZoneList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.112 Dialog Publish Itinerary Fare

### Use:

Allows a subscriber to obtain the fare associated with a transit itinerary.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiItineraryFareSub</u></a>	Request	No
<a href="#"><u>PiItineraryFare</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.113 Dialog Publish Itinerary Map

### Use:

Provide maps for a specified set of itineraries

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiItineraryMapSub</u></a>	Request	No
<a href="#"><u>PiItineraryMap</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.114 Dialog Publish Landmarks List

### Use:

Obtain a list of landmarks within a specified distance of a specified location, or a list of all landmarks in an agency database.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#">PiLandmarksListSub</a>	Request	No
<a href="#">PiLandmarksList</a>	Response	Yes
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.115 Dialog Publish Location Map

### Use:

Provide a map for a location or list of locations.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiLocationMapSub</u></a>	Request	No
<a href="#"><u>PiLocationMap</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.116 Dialog Publish Nearest Stop List

### Use:

Allow a subscriber to determine the closest stop or stops, meeting specified criteria, to a specified location.

### Remarks:

1. The interaction between the user and the user device (screen/display design) is outside of the scope of this dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#">PiNearestStopListSub</a>	Request	No
<a href="#">PiNearestStopList</a>	Response	Yes
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.117 Dialog Publish Route Information

### Use:

Allow an authorized subscriber to determine what general information about a transit route or list of transit routes.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiRouteListSub</u></a>	Request	No
<a href="#"><u>PiRouteList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.118 Dialog Publish Service Bulletin List

### Use:

Allows a subscriber to obtain the current service bulletins on specified route(s).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiServiceBulletinsListSub</u></a>	Request	No
<a href="#"><u>PiServiceBulletinsList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.119 Dialog Publish Service Status

### Use:

Allow a subscriber to obtain real-time status of service at a transit stop point or group of transit stop points from an agency business system (e.g. AVL). The primary intent of this dialog is to allow CSS or TRV to obtain current service information from CAD/AVL to support a variety of service status information flows to customers.

### Remarks:

1. The interaction between the user and the user device (screen/display design) is outside the scope of this dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiServiceStatusSub</u></a>	Request	No
<a href="#"><u>PiServiceStatus</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.120 Dialog Publish Service Types

### Use:

Allow an authorized subscriber to determine what service (by route and mode) is available for a specified set of criteria.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiServiceListSub</u></a>	Request	No
<a href="#"><u>PiServiceList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.121 Dialog Publish Stop Point ETA

### Use:

Provide ongoing next PTV information for a specified stop point, or group of stop points. The primary usage of this dialog is to provide next PTV information from CAD (publisher) to TRV or ISP (subscriber) to support next PTV signs at stop points.

### Remarks:

1. This is an event-based subscription. The algorithm for calculating the estimated time of arrival and for determining when to send an update is CAD/AVL vendor specific.
2. The look ahead distance (number of PTVs ahead provided) is a local agency specified decision.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiStopPointETASub</u></a>	Request	No
<a href="#"><u>PiStopPointETA</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.122 Dialog Publish Stoppoint Parking

### Use:

Provide information about a parking facility or facilities associated with a transit stoppoint or in the vicinity of a specified location to a subscriber.

### Remarks:

1. The interaction between the user and the user device (screen/display design) is outside of the scope of this dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiStoppointParkingSub</u></a>	Request	No
<a href="#"><u>PiStoppointParking</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.123 Dialog Publish Text Timetable

### Use:

Provide timetables in simple formatted text, or in an easily parsed XML format.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiTextTimetableSub</u></a>	Request	No
<a href="#"><u>PiTextTimetable</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.124 Dialog Publish Trip Itinerary List

### Use:

Allow a subscriber to obtain a trip itinerary from a Transit Agency. The dialog is applicable between an appropriately equipped and authorized, Internet Service Provider (ISP), subscriber or between two transit agency system (one subscriber, one publisher) for example to obtain an itinerary using another agency's service.

### Remarks:

1. The interaction between the user and the user device (screen/display design) is outside of the scope of this dialog.
2. For trips that span multiple agencies and agency system, the agency system directly serving the initial subscriber, may use multiple instances of this dialog to query the various ATIS for each agency. In this case the ATIS directly servicing the user is responsible for dividing the request up among the various ATIS, for reassembling the results into a single itinerary, and for resolving error conditions (e.g. if one system does not answer).
3. If the itinerary involves non-transit components SAE J2354 may be used to query non transit ATIS.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiTripItineraryListSub</u></a>	Request	No
<a href="#"><u>PiTripItineraryList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.125 Dialog Push Agency Static Files

### Use:

Allow an agency business system to push static files from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiPushAgencyFiles</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.126 Dialog Push Text Timetable

### Use:

Provide timetables in an XML format.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiPushTextTimetable</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.127 Dialog Report Found Item

### Use:

Report a found item.

### Remarks:

Depending on agency architecture, reporter or receiver may assign report numbers. If the receiver does the assignment, report numbers are all zero in the report message, and report numbers are nonzero in the acknowledgement.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiReportFoundItems</u></a>	Report	No
<a href="#"><u>PiReportFoundItemsAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.128 Dialog Report Lost Item

### Use:

Report a lost item.

### Remarks:

Depending on agency architecture, reporter or receiver may assign report numbers. If the receiver does the assignment, report numbers are all zero in the report message, and report numbers are nonzero in the acknowledgement.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiReportLostItems</u></a>	Report	No
<a href="#"><u>PiReportLostItemsAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.129 Dialog Report New Customer Profile

### Use:

Add a new customer profile to the database.

### Remarks:

If the new profile matches an existing profile, the ack message will convey the new data without a newly assigned profile number, along with the existing profile information to allow the reporter to perform an update on the existing profile if warranted. Otherwise the ack message conveys the newly assigned profile number.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiReportNewProfile</u></a>	Report	No
<a href="#"><u>PiAckNewProfile</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.130 Dialog Report Update Customer Profile

### Use:

Update an existing customer profile in the database.

### Remarks:

The existing profile number must be known to perform an update. Agencies may require a valid password for updates performed online (rather than through customer service).

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiReportProfileUpdate</u></a>	Report	No
<a href="#"><u>PiReportAckProfileUpdate</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.131 Dialog Report Update Customer Subscription

### Use:

Allow a customer to update their subscription(s) to agency information.

### Remarks:

1. Profile for customer must already exist.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>PiReportSubscriptionUpdate</u></a>	Report	No
<a href="#"><u>PiAckSubscriptionUpdate</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.132 Dialog Publish Pattern Service

### Use:

Provide current service information relative to PTV location within a pattern. This information can be used with the

information in the Publish Stoppoint Patterns dialog to create a schematic map on a passenger information display.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#">PiPatternServiceSub</a>	Request	No
<a href="#">PiPatternService</a>	Response	No
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.133 Dialog Publish Stoppoint Patterns

### Use:

Provide information about pattern membership and location within the patterns for a specified set of stoppoints.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#">PiStoppointPatternsSub</a>	Request	No
<a href="#">PiStoppointPatterns</a>	Response	No
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.134 Dialog Command Schedule Change

### Use:

Instruct an entity to modify a previously provided schedule. This dialog allows the controller to add new blocks (E.g. for a special event) to add trips to existing blocks or to cancel scheduled trips for a time period.

### Remarks:

An implementation may limit the time in advance that a schedule change is allowed. Since a separate list of runs and routes are not included in the SCH message, recommend that the SCHTripInfo frames are added. Trips be populated with run and routes assignments

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchCommandScheduleChange</u></a>	Command	No
<a href="#"><u>SchCommandScheduleChangeResponse</u></a>	Response	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.135 Dialog Load Operator Assignments

### Use:

Load bound or unbound assignments. This maybe all assignments, a subset, or a single run.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchOperatorAssignmentFile</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

#### Dialog Row Updates

Message	Field assignments	Data Frame	
<a href="#"><u>SchOperatorAssignmentFile</u></a>		SCHOperatorAssignment	

## D.136 Dialog Load Schedule

### Use:

Load Schedule Information. Local agency policy determines the scope of the schedule information to be stored on the PTV (whole agency schedule on every PTV, all routes within a garage to all PTVs from that garage, or only information relevant to the trips for that PTV). Agencies may choose to load only one of the RunSchedule, RouteSchedule, or BlockSchedule to vehicles or to load any combination.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchRouteScheduleFile</u></a>	DataFile	Yes
<a href="#"><u>SchRunScheduleFile</u></a>	DataFile	Yes
<a href="#"><u>SchBlockScheduleFile</u></a>	DataFile	Yes
<a href="#"><u>SchPatternFile</u></a>	DataFile	Yes
<a href="#"><u>SchTimepointsFile</u></a>	DataFile	Yes
<a href="#"><u>CptStoppointsFile</u></a>	DataFile	Yes
<a href="#"><u>SchCalendarFile</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No
<a href="#"><u>SchEventChangeFile</u></a>	DataFile	Yes

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchRouteScheduleFile</u></a>	route-schedules	SCHPTVRouteScheduleEntry
<a href="#"><u>SchRouteScheduleFile</u></a>	transfers	SCHTransferInfo
<a href="#"><u>SchRunScheduleFile</u></a>	sched-runs	SCHRRunScheduleEntry
<a href="#"><u>SchBlockScheduleFile</u></a>	sched-blocks	SCHBlockScheduleEntry
<a href="#"><u>SchPatternFile</u></a>	patterns	SCHPatternInfo
<a href="#"><u>SchPatternFile</u></a>	segments	SCHPatternSegment
<a href="#"><u>SchTimepointsFile</u></a>	timepoints	SCHTimepointInfo
<a href="#"><u>CptStoppointsFile</u></a>	stoppoints	CPTStoppoint

## D.137 Dialog Load Vehicle Assignments

### Use:

Load bound or unbound vehicle assignments. This may be all assignments, a subset, or a single block.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchVehicleAssignmentFile</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.138 Dialog Publish Actual Running Times

### Use:

Provide mechanism to convey actual running times from one business system to another.

### Remarks:

Running times are not reported directly by PTVs. Running times must be extracted from the daily operating data provided by numerous PTVs to produce this information.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchActualRunningTimesSub</u></a>	Request	No
<a href="#"><u>SchActualRunningTimes</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.139 Dialog Publish Block Schedule

### Use:

Allows a subscriber to obtain schedule information for a specified block or group of blocks.

### Remarks:

1. Incremental changes (row changes) can be obtained by a query for updates since the last received update to a specified revision.
2. Pattern, TimePoint, and StopPoint information is necessary to interpret the schedule information properly. This information can be obtained using the Publish Pattern List, Publish TimePoint List, and Publish StopPoint List dialogs.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchBlockScheduleListSub</u></a>	Request	No
<a href="#"><u>SchBlockScheduleList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchBlockScheduleList</u></a>	sched-blocks	SCHBlockScheduleEntry

## D.140 Dialog Publish Calendar

### Use:

Deliver a calendar that defines day types for each day in a time period.

### Remarks:

A new calendar supercedes previous calendars.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchCalendarSub</u></a>	Request	No
<a href="#"><u>SchCalendar</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.141 Dialog Publish Master Schedule Version

### Use:

Allows a subscriber to determine the currently available schedules {by route(s) and date(s)} from a business system. Based on this information the subscriber can elicit the information that is available and required using other dialogs.

### Remarks:

1. The publisher determines what internal event triggers a new schedule to become available. For example users may be editing schedules for future use without making them available to subscribers.
2. Published schedule Change

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchMasterScheduleVersionSub</u></a>	Request	No
<a href="#"><u>SchMasterScheduleVersion</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.142 Dialog Publish Operator Assignments

### Use:

Allows a subscriber to obtain operator work assignments for a specified time interval for specified operators, routes or garages. The subscriber can obtain assignments for the specified interval for all operators by not specifying a list of operators, garages, or routes. Work Assignments may be “unbound” (no operator assigned to the work) or “bound” (with an assigned operator).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchOperatorAssignmentListSub</u></a>	Request	No
<a href="#"><u>SchOperatorAssignmentList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchOperatorAssignmentList</u></a>	assignments	SCHOperatorAssignment

## D.143 Dialog Publish Pattern List

### Use:

Allows a subscriber to obtain pattern information by effective datetime, or version number. The subscriber can determine the required pattern effective date version number using the Publish Master Schedule Version dialog.

### Remarks:

1. TimePoint, and StopPoint information is necessary to interpret the pattern information properly. This information can be obtained using the Publish TimePoint List, and Publish StopPoint List dialogs.
2. This dialog may be used to request updates to a pattern list since a specified date/time, if the subscriber has previously obtained the complete pattern list with the specified effective date or version number (“Row Versioning”).
3. The request message contains a field called need-stoppoints. If this field is true, the SchPatternList returned shall contain the stoppoints in the pattern segments as well as the timepoints.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPatternListSub</u></a>	Request	No
<a href="#"><u>SchPatternList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchPatternList</u></a>	patterns	SCHPatternInfo
<a href="#"><u>SchPatternList</u></a>	segments	SCHPatternSegment

## D.144 Dialog Publish Pull In List

### Use:

Allows a subscriber to obtain pull in information for a specified time interval for specified vehicles, routes, or garages.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPullInListSub</u></a>	Request	No
<a href="#"><u>SchPullInList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.145 Dialog Publish Pull Out List

### Use:

Allows a subscriber to obtain pull out information for a specified time interval for specified vehicles, routes, or garages.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPullOutListSub</u></a>	Request	No
<a href="#"><u>SchPullOutList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.146 Dialog Publish Roster

### Use:

Provide a list of operator assignments (runs) grouped into a weekly work package.

### Remarks:

Operator assignments are obtained separately using the “Publish Operator Assignments” dialog.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchRosterListSub</u></a>	Request	No
<a href="#"><u>SchRosterList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.147 Dialog Publish Route Schedule

### Use:

Allows a subscriber to obtain schedule information for a specified route and schedule effective datetime version number. The subscriber can determine the appropriate version number for a route and day using the Publish Master Schedule Version dialog.

### Remarks:

1. This should be a query subscription. In the event that the subscriber needs to deal with schedule updates, the Publish Master Schedule Version dialog should be used to obtain notification of the availability of a complete new schedule revision. Incremental changes (row changes) can be obtained by a query for updates since the last received update to a specified revision.
2. Pattern, TimePoint, and StopPoint information is necessary to interpret the schedule information properly. This information can be obtained using the Publish Pattern List, Publish TimePoint List, and Publish StopPoint List dialogs.
3. Some subscribers require event information for trips (e.g. when bus signs should be changed, when announcements should be made), while others do not need this information. The include-events field in the SchRouteScheduleSub message indicates whether the SchRouteSchedule should include this information.

### Dialog Contents

Message	Role	File Transfer
<a href="#">SchRouteScheduleSub</a>	Request	No
<a href="#">SchRouteSchedule</a>	Response	Yes
<a href="#">CptSubErrorNotice</a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#">SchRouteSchedule</a>	scheduledATrips	SCHTripInfo
<a href="#">SchRouteSchedule</a>	scheduledBTrips	SCHTripInfo
<a href="#">SchRouteSchedule</a>	transfers	SCHTransferInfo

## D.148 Dialog Publish Run Schedule

### Use:

Allows a subscriber to obtain schedule information for a specified run or group of runs.

### Remarks:

1. Incremental changes (row changes) can be obtained by a query for updates since the last received update to a specified effective date.
2. Pattern, TimePoint, and StopPoint information is necessary to interpret the schedule information properly. This information can be obtained using the Publish Pattern List, Publish TimePoint List, and Publish StopPoint List dialogs.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchRunScheduleListSub</u></a>	Request	No
<a href="#"><u>SchRunScheduleList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchRunScheduleList</u></a>	sched-runs	SCHRunScheduleEntry

## D.149 Dialog Publish Running Times

### Use:

Provides an authorized subscriber with the scheduled or expected running times for a route or part of a route.

### Remarks:

1. The publisher may be a Data Repository (DR), Scheduling System (SCH) or Geographical Information System (GIS).
2. The subscriber may be Customer Service System (CSS), Traveler Information System (TRV), Data Repository (DR), Authorized Business System (ABS) or Scheduling System (SCH).

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchRunningTimeListSub</u></a>	Request	No
<a href="#"><u>SchRunningTimeList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.150 Dialog Publish Stop Service

### Use:

Allows a subscriber to obtain a list of the service at stops scheduled for a specified time interval for specified transit stop(s).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchStopServiceListSub</u></a>	Request	No
<a href="#"><u>SchStopServiceList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.151 Dialog Publish Timepoint List

### Use:

Allows a subscriber to obtain timepoint information by effective datetime or version number. The subscriber can determine the required timepoint effective date/ version number using the Publish Master Schedule Version dialog.

### Remarks:

The dialog may be used to request updates to a timepoint list since a specified date/time if the subscriber has previously obtained the complete timepoint list with the specified effective date or version number.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchTimepointListSub</u></a>	Request	No
<a href="#"><u>SchTimepointList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchTimepointList</u></a>	timepoints	SCHTimepointInfo

## D.152 Dialog Publish Trip Detail

### Use:

Allows a subscriber to obtain detailed trip information for a specified time interval for specified trips, routes, timepoints, or stoppoints.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchTripDetailListSub</u></a>	Request	No
<a href="#"><u>SchTripDetailList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.153 Dialog Publish Unassigned Operators

### Use:

Allows a subscriber to obtain a list of unassigned operators ‘extra list’ for a specified time interval for specified operators, routes or bases. The subscriber can obtain a list of all unassigned operators for the specified by not specifying a list of operators, garages, or routes.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchUnassignedOperatorListSub</u></a>	Request	No
<a href="#"><u>SchUnassignedOperatorList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.154 Dialog Publish Unassigned Vehicles

### Use:

Allows a subscriber to obtain a list of unassigned Vehicles for a specified time interval for specified vehicles, vehicle types, vehicle-attributes, or garages. The subscriber can obtain a list of all unassigned vehicles for the specified interval by not specifying a list of vehicles, vehicle types, vehicle attributes, or garages.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchUnassignedVehicleListSub</u></a>	Request	No
<a href="#"><u>SchUnassignedVehicleList</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.155 Dialog Publish Vehicle Assignments

### Use:

Allows a subscriber to obtain vehicle assignments for a specified time interval for specified vehicles, routes or garages. The subscriber can obtain assignments for the specified interval for all vehicles by not specifying a list of vehicles, garages, or routes. Work assignments may be “unbound” (no vehicle assigned to the work) or “bound” (with specific vehicle(s) assigned).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchVehicleAssignmentListSub</u></a>	Request	No
<a href="#"><u>SchVehicleAssignmentList</u></a>	Response	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SchVehicleAssignmentList</u></a>	assignments	SCHVehicleAssignment

## D.156 Dialog Push Block Schedule

### Use:

Deliver the Block Schedule (scheduled trips) for a block (vehicle assignment) or group of blocks.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushBlockSchedule</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.157 Dialog Push Calendar

### Use:

Deliver a calendar that defines day types for each day in a time period.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushCalendar</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.158 Dialog Push Master Schedule Version

### Use:

Deliver schedule version information.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushMasterScheduleVersion</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.159 Dialog Push Operator Assignments

### Use:

Deliver bound or unbound operator assignments.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushOperatorAssignments</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.160 Dialog Push Patterns

### Use:

Deliver the pattern definitions.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushPatterns</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.161 Dialog Push Roster

### Use:

Allow a business system to transfer (unsolicited) a list of rosters (weekly operator assignments) to another business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushRoster</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.162 Dialog Push Route Schedule

### Use:

Deliver the Route Schedule (scheduled trips) for a route.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushRouteSchedule</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.163 Dialog Push Run Schedule

### Use:

Deliver the Run Schedule (scheduled trips) for a run(operator assignment) or group of runs.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushRunSchedule</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.164 Dialog Push Running Times

### Use:

Deliver the scheduled running times

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushRunningTimes</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.165 Dialog Push Timepoints

### Use:

Deliver the timepoint definitions

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushTimepoints</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.166 Dialog Push Vehicle Assignments

### Use:

Deliver bound or unbound vehicle assignments, from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchPushVehicleAssignments</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.167 Dialog Report Schedule Validation Error

### Use:

Notify a data repository, scheduling system, or other agency-specified business system receiver of a schedule validation failure.

### Remarks:

1. Used by a schedule consumer application to report a defect in a schedule.
2. There is NO assumption that validation errors result in any type of automatic corrections. Actions taken by the agency as a result of the report may not occur promptly after the report is received.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SchReportValidationErrors</u></a>	Report	No
<a href="#"><u>SchReportValidationErrorsAck</u></a>	Acknowledgement	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.168 Dialog Notify Onboard PRG Inputs

### Use:

This dialog allows a Signal Priority Request Generator (PRG) external to the Vehicle Logic Unit (VLU), to obtain real-time vehicle status information necessary to generate situation-appropriate signal priority requests.

### Remarks:

- 1.The PRG separately has obtained the necessary contextual information (intersections, strategies, schedules, boundaries).
- 2.If the PRG operates within the VLU, the data transfer is internal and this dialog is not required.

### Dialog Contents

Message	Role	File Transfer
<a href="#">TspPRGInputsPTV</a>	Notification	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.169 Dialog Publish CC PRG Inputs

### Use:

Allow a Traffic Management Center (TMC) or roadside Priority Request Server (PRS) to subscribe to information (from the transit control center) about PTV's approaching signal priority equipped intersections. This subscription is required for NTCIP 1211 Scenario #3 generation of priority requests by the Traffic Management Center-based PRG.

### Remarks:

1. The CAD/AVL System knows the locations of intersections, and stop bars as part of its configuration.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>TspPRGInputsCCSub</u></a>	Request	No
<a href="#"><u>TspPRGInputsCC</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.170 Dialog Publish PRS Event Log

### Use:

Provide a mechanism for a Transit Business System (subscriber) or to obtain a historical record of signal priority events from a suitably equipped Traffic Management Center or roadside Priority Request Server (publisher).

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ScpEventLogSub</u></a>	Request	No
<a href="#"><u>ScpEventLog</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.171 Dialog Publish GIS Data

### Use:

Provide the capability for a Transit Business System to subscribe to a simple form of GIS data.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SpGIS</u></a>	Response	No
<a href="#"><u>SpGISSub</u></a>	Request	No
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

Message	Field	Data Frame
<a href="#"><u>SpGIS</u></a>	layers	SPGISLayer
<a href="#"><u>SpGIS</u></a>	features	SPFeature
<a href="#"><u>SpGIS</u></a>	streets	LRMS.StreetInfo
<a href="#"><u>SpGIS</u></a>	nodes	LRMS.NodeAttribute
<a href="#"><u>SpGIS</u></a>	segments	SPStreetSeg

## D.172 Dialog Publish Location Conversion

### Use:

Provides a conversion from one geographical point type to another geographical point type (e.g. address to latitude longitude).

### Remarks:

1. If the query contains multiple conversion requests, the response may provide valid conversions for some, and error notices for others in the response record.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SpLocationConversionSub</u></a>	Request	No
<a href="#"><u>SpLocationConversion</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.173 Dialog Publish Map Image

### Use:

Transfer a map image for use as a background by a business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SpMapImageSub</u></a>	Request	No
<a href="#"><u>SpMapImage</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.174 Dialog Publish Route Geo Trace

### Use:

Transfer a sequence of points or directions defining a transit route or portion of a route.

### Remarks:

1. Publisher must have access to some schedule artifacts to process this query. Some publishers may not support all types of queries (by patterns, pattern segments, trip, or time/stop point list).
2. Publisher should provide a legal path under existing traffic laws (e.g. one way streets, no left turns).
3. Publisher may require human intervention to create geotracers, Consequently some queries may result in a CptSubErrorNotice to the subscriber, indicating the data is not available.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SpRouteGeoTraceSub</u></a>	Request	No
<a href="#"><u>SpRouteGeoTrace</u></a>	Response	Yes
<a href="#"><u>CptSubErrorNotice</u></a>	ErrorResponse	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.175 Dialog Push GIS Data

### Use:

Push GIS data from one business system to another.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SpGISPush</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.176 Dialog Push Geolocation Data

### Use:

Provide field measured geolocation data to a business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>SpGeolocationData</u></a>	DataFile	Yes
<a href="#"><u>CptPushSuccess</u></a>	AckSuccess	No
<a href="#"><u>CptPushFailure</u></a>	AckFail	No

#### Dialog Row Updates

There are no row updates associated with this dialog.

## D.177 Dialog Load TSP Business Rules

### Use:

Provide information to a Transit Signal Priority logical entity PTV-PRI (which may include a PRG) onboard the PTV. This information is required by PTV-PRI to generate and manage priority requests.

### Remarks:

The publisher is responsible for determining the correct current version to be used by each PRG.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>TspBusinessRules</u></a>	DataFile	Yes
<a href="#"><u>CptForceLoad</u></a>	ForceLoad	No
<a href="#"><u>CptOnboardVersionNotice</u></a>	OnboardVersionNotice	No
<a href="#"><u>CptLoadControl</u></a>	LoadControl	No
<a href="#"><u>CptCurrentVersionNotice</u></a>	CurrentVersionNotice	No
<a href="#"><u>CptBadLoadRequest</u></a>	BadLoadRequestNotice	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.178 Dialog SCP Priority Request Scenario 1

### Use:

This dialog defines the generation and processing of priority requests by an onboard vehicle Priority Request Generator (PRG), with the CAD/AVL System as an intermediary according to NTCIP 1211 Scenario #1.

### Remarks:

- 1) The PRG to PRS messages contain optional fields to convey intersection identifiers consistent with the Institute of Traffic Engineers Traffic Management Data Dictionary. These fields maybe used by the CAD/AVL System to direct the ongoing message to the proper PRS, however the control center is then responsible for removing the optional fields from the message, and forwarding a message to the PRS that complies with NTCIP 1211. Similarly, an agency may elect to use TCIP narrowband encoding, or XML encoding between the PRG and the CAD/AVL System, however, the control center is then responsible for format the outgoing messages to the PRS consistent with NTCIP 1211, and to reformat incoming messages from the PRS consistent with its local policy..
- 2) If the vehicle clears the intersection and the PTV-PRI is not configured to generate a priority clear to the PRS, the dialog ends from the PTV-PRI view point, and ends from the CAD/AVL System and PRS view points after a local timeout.

The criteria for determining when a priority update, status update, or priority cancel should be initiated are agency/vendor defined.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ScpPriorityRequest</u></a>	PriorityRequest	No
<a href="#"><u>ScpPriorityRequestAck</u></a>	PriorityRequestAck	No
<a href="#"><u>ScpPriorityUpdate</u></a>	PriorityUpdate	No
<a href="#"><u>ScpPriorityUpdateAck</u></a>	PriorityUpdateAck	No
<a href="#"><u>ScpStatusControl</u></a>	StatusControl	No
<a href="#"><u>ScpStatusControlAck</u></a>	StatusControlAck	No
<a href="#"><u>ScpStatusBuffer</u></a>	StatusBuffer	No
<a href="#"><u>ScpStatusBufferResponse</u></a>	StatusBufferResponse	No
<a href="#"><u>ScpPriorityCancel</u></a>	PriorityCancel	No
<a href="#"><u>ScpPriorityCancelAck</u></a>	PriorityCancelAck	No
<a href="#"><u>ScpPriorityClear</u></a>	PriorityClear	No
<a href="#"><u>ScpPriorityClearAck</u></a>	PriorityClearAck	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.179 Dialog SCP Priority Request Scenario 2

### Use:

This dialog defines the generation and processing of priority requests according to NTCIP 1211 Scenario 2.

### Remarks:

- 1) If the vehicle clears the intersection and the PRG is not configured to generate a priority clear to the PRS, the dialog ends from the PRG view point. The dialog ends from the PRS view point after a local timeout.
- 2) The criteria for determining when a priority update, status update, or priority cancel should be initiated are agency/vendor defined.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ScpPriorityRequest</u></a>	PriorityRequest	No
<a href="#"><u>ScpPriorityRequestAck</u></a>	PriorityRequestAck	No
<a href="#"><u>ScpPriorityUpdate</u></a>	PriorityUpdate	No
<a href="#"><u>ScpPriorityUpdateAck</u></a>	PriorityUpdateAck	No
<a href="#"><u>ScpStatusControl</u></a>	StatusControl	No
<a href="#"><u>ScpStatusControlAck</u></a>	StatusControlAck	No
<a href="#"><u>ScpStatusBuffer</u></a>	StatusBuffer	No
<a href="#"><u>ScpStatusBufferResponse</u></a>	StatusBufferResponse	No
<a href="#"><u>ScpPriorityCancel</u></a>	PriorityCancel	No
<a href="#"><u>ScpPriorityCancelAck</u></a>	PriorityCancelAck	No
<a href="#"><u>ScpPriorityClearAck</u></a>	PriorityClearAck	No
<a href="#"><u>ScpPriorityClear</u></a>	PriorityClear	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.180 Dialog SCP Priority Request Scenario 4

### Use:

This dialog defines the generation and processing of priority requests by an onboard vehicle Priority Request Generator (PRG), inside the PTV-PRI entity with direct communication to the Priority Request Server (PRS) according to NTCIP 1211 Scenario #4.

### Remarks:

- 1) PTV-PRI has already received SCP data via the “Load TSP Business Rules” dialog.
- 2) PTV-PRI has access to data resident in the vehicle logic unit (VLU)such as vehicle location, speed, bearing, schedule, and passenger count (if so equipped), or is provided such data using the “Notify Onboard PRG Inputs” dialog.
- 3) The PRS may be Priority Request Publisher (RDPRS) (Roadside or TMC).
- 4) If the vehicle clears the intersection and PTV-PRI is not configured to generate a priority clear to the PRS, the dialog ends from PTV-PRI view point, and ends from the PRS view point after a local timeout.

The criteria for determining when a priority update, status update, or priority cancel should be initiated are agency/vendor defined.

### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>ScpPriorityRequest</u></a>	PriorityRequest	No
<a href="#"><u>ScpPriorityRequestAck</u></a>	PriorityRequestAck	No
<a href="#"><u>ScpPriorityUpdate</u></a>	PriorityUpdate	No
<a href="#"><u>ScpPriorityUpdateAck</u></a>	PriorityUpdateAck	No
<a href="#"><u>ScpStatusControl</u></a>	StatusControl	No
<a href="#"><u>ScpStatusControlAck</u></a>	StatusControlAck	No
<a href="#"><u>ScpStatusBuffer</u></a>	StatusBuffer	No
<a href="#"><u>ScpStatusBufferResponse</u></a>	StatusBufferResponse	No
<a href="#"><u>ScpPriorityCancel</u></a>	PriorityCancel	No
<a href="#"><u>ScpPriorityCancelAck</u></a>	PriorityCancelAck	No
<a href="#"><u>ScpPriorityClear</u></a>	PriorityClear	No
<a href="#"><u>ScpPriorityClearAck</u></a>	PriorityClearAck	No

### Dialog Row Updates

There are no row updates associated with this dialog.

## D.181 Dialog Unload PRG Event Log

### Use:

Unload data on the history of signal priority events from the PRG to a data repository, or other authorized business system.

### Remarks:

#### Dialog Contents

Message	Role	File Transfer
<a href="#"><u>TspEventLogUnload</u></a>	DataFile	Yes
<a href="#"><u>CptForceUnload</u></a>	ForceUnload	No
<a href="#"><u>CptFilesToUnload</u></a>	AvailableFilesToUnload	No
<a href="#"><u>CptUnloadControl</u></a>	UnloadControl	No
<a href="#"><u>CptUnloadRequestError</u></a>	BadUnloadRequestNotice	No

#### Dialog Row Updates

There are no row updates associated with this dialog.