Integrating new Transit Technologies into existing and new practices.

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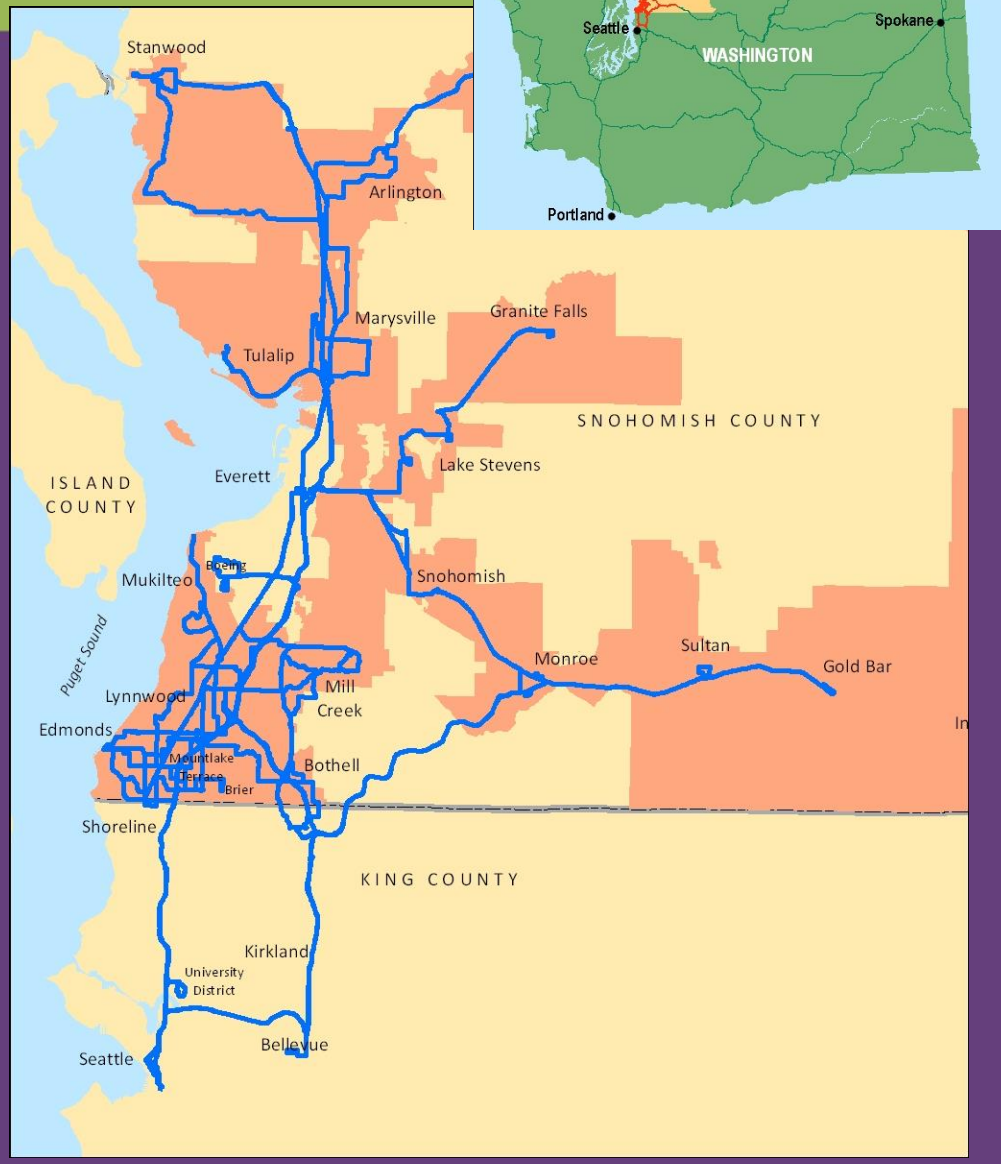
2013 Multimodal Operations Planning Workshop

APTA

Overview: Community Transit

- 9 million pass. trips
- 228 buses
- 415 vans
- 530,000 population
- 1,300 square miles
- Local bus
- *Swift* BRT
- Commuter bus



The Challenge:

- Your data is changing!
  - Completely replacing old sources
  - Supplementing existing sources
  - New to agency
- How to minimize time to use new data?
  - Integrate into systems
  - Modify or create new processes
  - Educate staff

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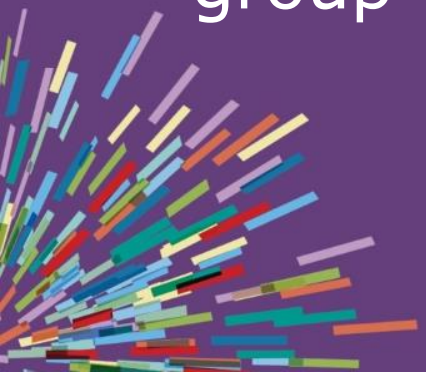
Identify the SME's:

- It starts with key staff who:
  - Understand the technology (to a degree)
  - Understand the business rules (a must!)
  - Are from different parts of the organization (Ops, Planning etc.)
  - Understand a more global scope of process and commonality
- Yes, it winds up being a pretty small group



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Get their attention:

- Capture the interest of the group:
  - Use the "Shiny new thing" to pull people together
  - "Shiny new thing" = data and reporting tools from new Transit Technologies (AVL, APC's etc.)
  - Find a leader to take the ownership (Data Program Manger position added)

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Define business terms:

- Definitions:
  - Get key staff to agree on common definitions enabling data to be viewed in a standard format
  - Deliver small samples of real data and challenge them to "break it"
  - Users will begin to take ownership of the groups decisions
  - Keep the group moving and keep it fun!

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Translate business to data:

- Example:
  - Runtime = Travel time from one point to another, right?
  - Schedulers = Travel time from the departure time of one point to the departure time of a second point
  - Customer Service = The time it takes from seeing a bus at one point to seeing a bus at a second point
  - Transportation = Travel time from departure of one point to arrival of another point.

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Keep going:

- Tools, tools and more tools:
  - People will get caught up in the tools
  - Don’t let the tools take over the momentum
  - Success using all this new information is driven by understanding what it means
  - Provide just enough in the early stages to set the group (and yourself) up for success
  - Keep things moving
  - Define, test, define, test, define, test

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Progress!

- Like magic, some things will fall into place:
  - Definitions will build into requirements
  - Requirements will build into processes
  - Processes will build into measurements
  - Measurements will build into knowing exactly how you are using the data!
- Don’t they call that Data Governance?
  - Shhhh….nobody has to know!

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Data:

- Before you know it, this:

Date	Line	Block	Pattern	Sched. sta	Sched
11/1/2012	Swift	67003	n1	5:20:00	6:0
11/1/2012	Swift	67003	s1	6:12:00	6:5
11/1/2012	Swift	67003	n1	7:12:00	7:5
11/1/2012	Swift	67003	s1	8:12:00	8:5
11/1/2012	Swift	67003	n1	9:12:00	10:0
11/1/2012	Swift	67003	s1	10:12:00	10:5
11/1/2012	Swift	67003	n1	11:12:00	12:0
11/1/2012	Swift	67003	s1	12:12:00	13:0
11/1/2012	Swift	67003	n1	13:12:00	14:0

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TPS;2877    ;arvil ;301      ;X; ;
PAT;  101;   3;          ;  ;9
TPS;2877    ;arvil ;9        ;X; ;
TPS;2839    ;base  ;9        ;X; ;
PAT;  101;   5;          ;  ;9
TPS;2839    ;base  ;9        ;X; ;
TPS;2105    ;marpr ;9        ;X; ;
PAT;  101;   7;          ;  ;9
TPS;2105    ;marpr ;9        ;X; ;
TPS;2839    ;base  ;9        ;X; ;
PAT;  101;  18;North     ; 0;300
TPS;2876    ;arvil7;300      ;X; ;
TPS;2405    ;      ;300      ; ; ;
TPS;1017    ;      ;300      ; ; ;
TPS;1023    ;      ;300      ; ; ;
TPS;1016    ;      ;300      ; ; ;
TPS;1015    ;      ;300      ; ; ;
TPS;1014    ;      ;300      ; ; ;
TPS;1022    ;      ;300      ; ; ;
TPS;2237    ;      ;300      ; ; ;
TPS;1013    ;      ;300      ; ; ;
TPS;1012    ;      ;300      ; ; ;
TPS;1011    ;      ;300      ; ; ;
```

Date	Route	Block	Trip	Direction	Scd ARR Time	Scd ARR Minu	Act ARR Time
8/12/12	512	65001	15001	North	05:35	335	05:37:01
8/12/12	512	65001	15001	North	05:38	338	05:39:13
8/12/12	512	65001	15001	North			05:40:10
8/12/12	512	65001	15001	North			05:41:52
8/12/12	512	65001	15001	North			05:43:01
8/12/12	512	65001	15001	North	05:43	343	05:44:26
8/12/12	512	65001	15001	North			05:46:27
						347	05:48:48
						353	05:54:24
						359	06:01:17
						365	06:06:21
						370	06:11:09
						379	06:18:16
						387	06:26:26
						394	06:32:42

1	Affirmative
2	Negative
3	5 minute call complete
4	911 notified
5	Acknowledeged
6	Are you available for extra work? Contact dispatch at the end of trip/layover
7	Are you available for a coach exchange?
8	Contact base

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s Dr & Steve Williams Dr.mp3;1000010_Ellison James Dr & Steve Williams Dr.mp3
V & Marine Dr.mp3;1000011_36th Ave NW & Marine Dr.mp3;M:\MP\dataExport\co
5;1000014_Totem Beach Rd & 64th St NW.mp3;1000014_Totem Beach Rd & 64th St NW.mp3;M:\MP\dataE
ne Dr NE & 33rd Ave NE.mp3;1000016_Marine Dr NE & 33rd Ave NE.mp3;M:\MP\dataExpo
ne Dr NE & Meridian Ave N.mp3;1000017_Marine Dr NE & Meridian Ave N.mp3;M:\MP\da
Ave & 92nd St NE.mp3;1000023_State Ave & 92nd St NE.mp3;M:\MP\dataExport\copilot
ain St & 1
idian Ave
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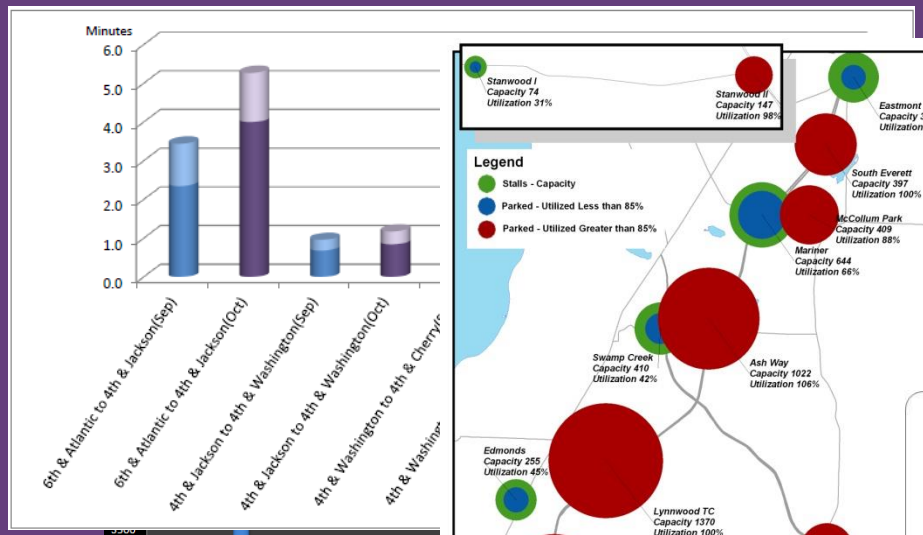
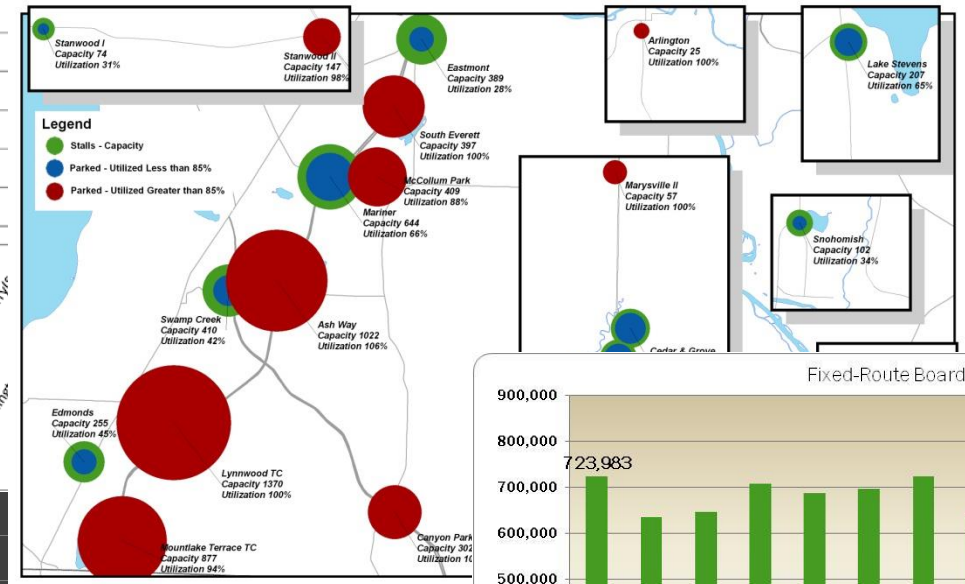
From Coach to Dispatch					
Category	Number	Order within category	Canned Message From Operator	Menu level priority	Sound in Dispatch
no category	1		Affirmative	0	ringin
no category	2		Negative	0	ringin
no category	3		Involved in an accident	0	glasses
no category	4		Mechanical Issue	0	ringin
no category	5		Off Route	0	glasses
Contact	10001		Contact	1	N/A
Contact	6	1	Driver maintenance	1	ringin
Contact	6	2	Please contact	1	ringin
Contact	6	3	Refused front tie downs	1	ringin
Contact	6	4	Refused restraint	1	ringin
Contact	6	5	Request road relief	1	ringin
Contact	6	6	Request Supervisor assistance	1	ringin
Contact	6	7	Reroute information requested	1	ringin
Contact	6	8	Waiting for instructions	1	ringin

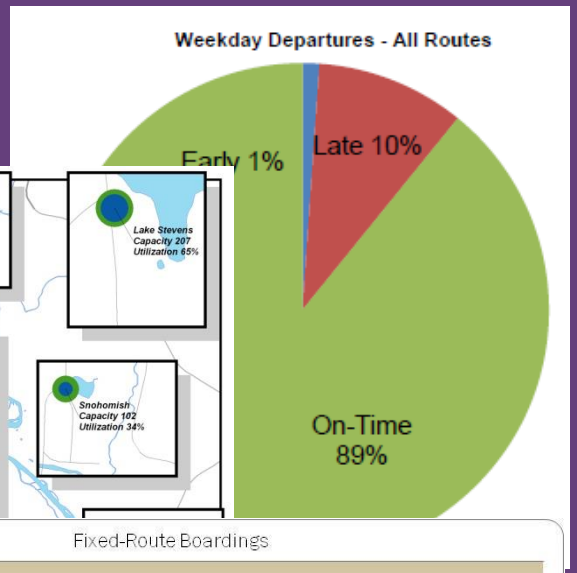
210005	LOCATING: Announcement before stop
210006	LOCATING: Display of destination on deadrun
210021	LOCATING: Destination display before journey beginn
210024	LOCATING: Default destination (blank)
220002	ANNOUNCE: Def. volume for interior ann. during daytime

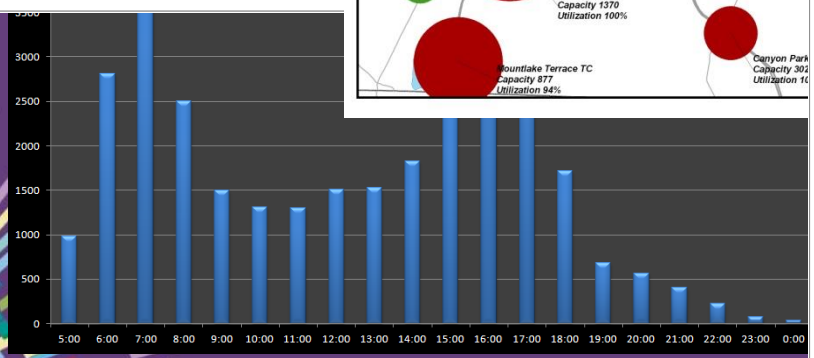
Information:

- Becomes this:









Summary:

- Find your people
- Start small
- Learn a lot
- Keep moving
- Show off what’s been accomplished
- Keep it fun!