



Past, Present and Future: Consultant Service and Agency Expectations

APTA TransiTech
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The past...all the way back to 2008

- Limited data
- Room for human error
- Expense to replace, reprint, update when changes happened
- “Where’s my bus?”



Opportunities with ARRA and CMAQ

- Initial plan developed in 2009
- Project Implementation in 2010
 - Followed systems engineering approach
 - Specifications developed
 - Request for Proposals
 - Some Implementation Oversight for portions of project



Original Package	Fixed Route Vendor	Paratransit Vendor
Scheduling Software	TMS	RouteMatch
Computer Aided Dispatch (CAD)	Avail	RouteMatch
Automatic Vehicle Location (AVL)	Avail	RouteMatch
Automated Voice Announcements (AVA)	Avail	
Automatic Passenger Counters	Avail	
Interactive Voice Response	UDI	
Real Time Information Systems Customer Notification Systems	Transloc / Avail /Fleetwatch	
Fare Collection / Vending	GFI	
On Board Mobile Surveillance	TSI	TSI
Fuel and Fluid Monitoring	Fleetwatch and Fleetnet	
Trip Planning / Google Transit	Google / Bing	

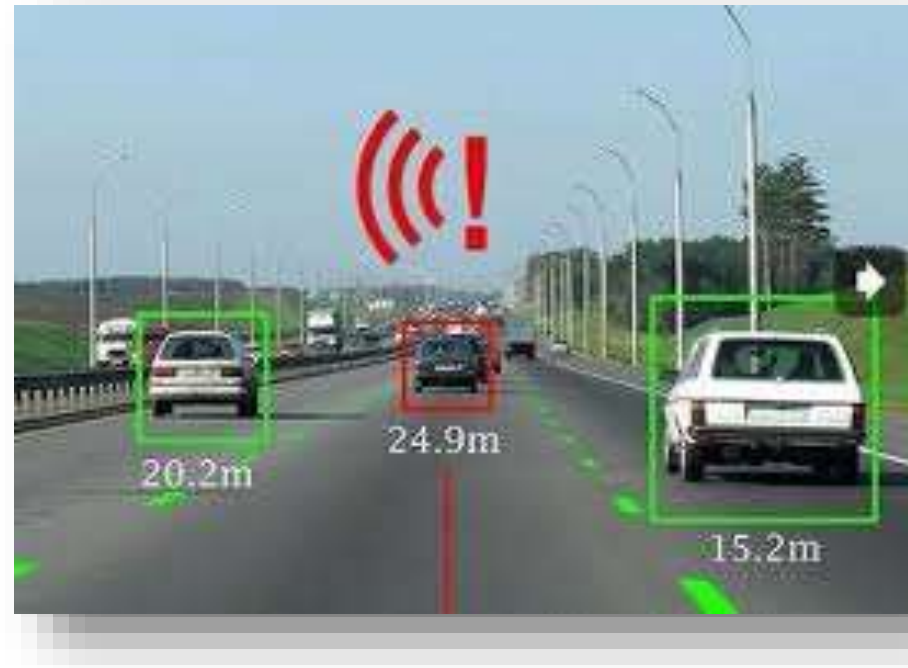


Expected Benefits

- Efficiency
 - Accessible data for planning
- Energy & Environment
 - Vehicle health
- Productivity
 - Active dispatching and communications
- Safety
 - Liability for accidents
- Customer Satisfaction
 - Reduces anxiety while waiting
- Mobility
 - Improves attractiveness of transit

Present Day / Current

- Added and expanded Real Time Information for Fixed Route and Paratransit
- Refining and expanding Supervisor and Dispatcher use of CAD/AVL
- Collision/pedestrian avoidance systems



Actual Benefits and Impacts

- The data!!!
- And even more data!!!
- Mechanical issues become technical issues, i.e. can't use a screwdriver to fix the problem
- How to use the system vs. How to apply the benefits from the system
- Old habits die hard



Exploring / Pending / Possible Systems	Fixed Route (Vendor)	Paratransit (Vendor)
Vehicle Component Monitoring		
Bus Stop Management / GIS		n/a
Yard Management		n/a
Collision Avoidance Systems	Mobileye	
Traffic Signal Priority/Pre-emption		
Transfer Connection Protection		
Fare Collection / Vending		RouteMatch
WiFi enabled vehicles	Icomera	
Information Sharing / Trip Compares		
Mobility On Demand		

Conclusions

- Customer Focus
- Training and human factor
- Specifications / warranty / useful life
- Capital vs. Operating
- Grant Funds, or not