

Oregon Statewide ITS Architecture and Operational Concept Plan Update

Public Transportation Advisory Committee Meeting September 13, 2010

Agenda for the Oregon Statewide ITS Architecture and Operational Concept Plan Update portion of the meeting:

- Provide background on ITS Architecture
- Visioning exercise
- Brainstorm proposed stakeholders, inventory elements, and roles and responsibilities

Meeting Materials

- Draft public transportation systems matrix (Table 1)
- Draft public transportation proposed stakeholders (Table 2)
- Draft public transportation proposed inventory elements (Table 3)
- Public transportation roles and responsibilities for other service areas – from August 2006 Oregon Statewide ITS Architecture and Operational Concept Plan (Table 4)
- Draft public transportation roles and responsibilities (Table 5)
- Draft public transportation operational concept diagram (Figure 1)

ITS Operations

Table 1: Draft Public Transportation Systems Matrix – to be discussed and edited at the meeting

Market Package No.	Market Package Name/ Transit System Element	Existing	Planned	Not Planned
APTS 01	Transit Vehicle Tracking <ul style="list-style-type: none"> Automated Vehicle Location tracking (AVL) 			
APTS 02	Transit Fixed-Route Operations <ul style="list-style-type: none"> Automated Stop Announcement (ASA) Computer Aided Dispatch (CAD) 			
APTS 03	Demand Response Transit Operations <ul style="list-style-type: none"> Computer Aided Dispatch (CAD) Reservation System 			
APTS 04	Transit Fare Collection Management <ul style="list-style-type: none"> Electronic Fare Collection (EFC) 			
APTS 05	Transit Security <ul style="list-style-type: none"> Video Cameras Intrusion Sensors and Alarms 			
APTS 06	Transit Fleet Management			
APTS 07	Multi-modal Coordination			
APTS 08	Transit Traveler Information <ul style="list-style-type: none"> TripCheck Google Transit 			
APTS 09	Transit Signal Priority			
APTS 10	Transit Passenger Counting <ul style="list-style-type: none"> Automated Passenger Counter (APC) 			
Other Transit System Elements (non-APTS Market Packages)				
ATIS 08	<ul style="list-style-type: none"> iCarpool 			
ATMS 16	<ul style="list-style-type: none"> Parking Management 			
AD 1 & 2	<ul style="list-style-type: none"> Archived Data 			
MC 10	<ul style="list-style-type: none"> Maintenance and Construction 			
ATMS 08	<ul style="list-style-type: none"> Incident Management 			

APTS – Advanced Public Transportation Systems

ITS Architecture

Table 2: Draft list of public transportation proposed stakeholders – to be discussed and edited at the meeting

Proposed stakeholders	
1. Public Transportation Service Providers	9.
2. Commercial Transportation Service Providers	10.
3. ODOT	11.
4. Local Traffic Management Agencies	12.
5. Emergency Management	13.
6. Commercial Information Service Providers (ISPs)	14.
7. Travelers	15.
8.	16.

Table 3: Draft list of proposed public transportation inventory elements – to be discussed and edited at the meeting

Proposed inventory elements	
1. Public Transit Operations and Dispatch Centers	9. Personal user devices
2. Traffic Management and Operation Centers	10. Commercial information service providers
3. Field Devices (cameras, traffic signals, ticketing, locators, etc.)	11. Media
4. Transit Vehicles (public and commercial)	12.
5. TripCheck System	13.
6. Traveler Information	14.
7. Google transit	15.
8. Travelers	16.

Table 4: Public Transportation Roles and Responsibilities for Other Service Areas (from August 2006 Oregon Statewide ITS Architecture and Operational Concept Plan)

Stakeholder	Roles and Responsibilities	Status
Regional Traffic Control		
Public Transportation Service Providers	<ul style="list-style-type: none"> Provide transit vehicle probe data. 	<ul style="list-style-type: none"> Existing/Planned
Traveler Information*		
Public Transportation Service Providers	<ul style="list-style-type: none"> Design/construct/maintain/operate ITS equipment to support transit traveler information (e.g. transit arrival signs, on-board systems). Provide transit traveler information (e.g. routes, fares) to the TripCheck system for the Regional Trip Planner. Provide transit vehicle location information to TTIP. Disseminate transit traveler information through public transportation agency systems (e.g. transit Web sites and phone systems). 	<ul style="list-style-type: none"> Existing/Planned Programmed Future Existing/Planned
Commercial Transportation Service Providers	<ul style="list-style-type: none"> Provide transit traveler information (e.g. routes, fares) to the TripCheck system for the Regional Trip Planner. Provide transit vehicle location information to TTIP. Disseminate traveler information through commercial transportation company systems (e.g. Web sites). 	<ul style="list-style-type: none"> Programmed Future Existing/Planned
Commercial Information Service Providers	<ul style="list-style-type: none"> Subscribe to TTIP to obtain current real-time traveler information*. Disseminate traveler information* through commercial systems (e.g. Web sites). 	<ul style="list-style-type: none"> Programmed Existing/Planned
Media	<ul style="list-style-type: none"> Subscribe to TTIP to obtain current real-time traveler information*. Disseminate traveler information* through the media (e.g. television and radio broadcasts). 	<ul style="list-style-type: none"> Programmed Existing/Planned
Archived Data Management		
Public Transportation Service Providers	<ul style="list-style-type: none"> Design/construct/maintain/operate field equipment and in-vehicle systems that support automated data collection. Maintain agency-owned data mart(s). Design/maintain infrastructure that supports data transfer to agency-owned data mart(s) and the PORTAL data warehouse. 	<ul style="list-style-type: none"> Existing/Planned Existing/Planned Existing/Planned
<p>* Traveler information includes, but is not limited to, information about road/traffic conditions, weather, transit, heavy rail, parking, incidents, major emergencies, maintenance and construction activities, special events, and traveler services.</p>		

Table 5: DRAFT Public Transportation Roles and Responsibilities

Stakeholder	Roles and Responsibilities	Status
Public Transportation Service Providers	<ul style="list-style-type: none"> ▪ Design/construct/integrate/maintain/operate transit systems and transit field devices. ▪ Dispatch fixed route vehicles. ▪ Manage reservations and dispatch demand response and deviated fixed route vehicles. ▪ Coordinate service with other public transportation service providers at system transfer points. ▪ Coordinate transit signal priority installations with ODOT and local traffic management agencies. 	<ul style="list-style-type: none"> ▪ Existing/Planned ▪ Existing/Planned ▪ Existing/Planned ▪ Existing/Planned ▪ Existing/Planned
Commercial Transportation Service Providers	<ul style="list-style-type: none"> ▪ Manage reservations and dispatch vehicles. 	<ul style="list-style-type: none"> ▪ Existing/Planned
Oregon Department of Transportation	<ul style="list-style-type: none"> ▪ Design/construct/maintain/operate transit signal priority equipment associated with traffic signals. ▪ Operate traffic signals with transit signal priority and monitor performance. 	<ul style="list-style-type: none"> ▪ Existing/Planned ▪ Existing/Planned
Local Traffic Management Agencies	<ul style="list-style-type: none"> ▪ Design/construct/maintain/operate transit signal priority equipment associated with traffic signals. ▪ Operate traffic signals with transit signal priority and monitor performance. 	<ul style="list-style-type: none"> ▪ Existing/Planned ▪ Existing/Planned
Travelers	<ul style="list-style-type: none"> ▪ Pay for public transportation services using a traveler fare card. 	<ul style="list-style-type: none"> ▪ Planned

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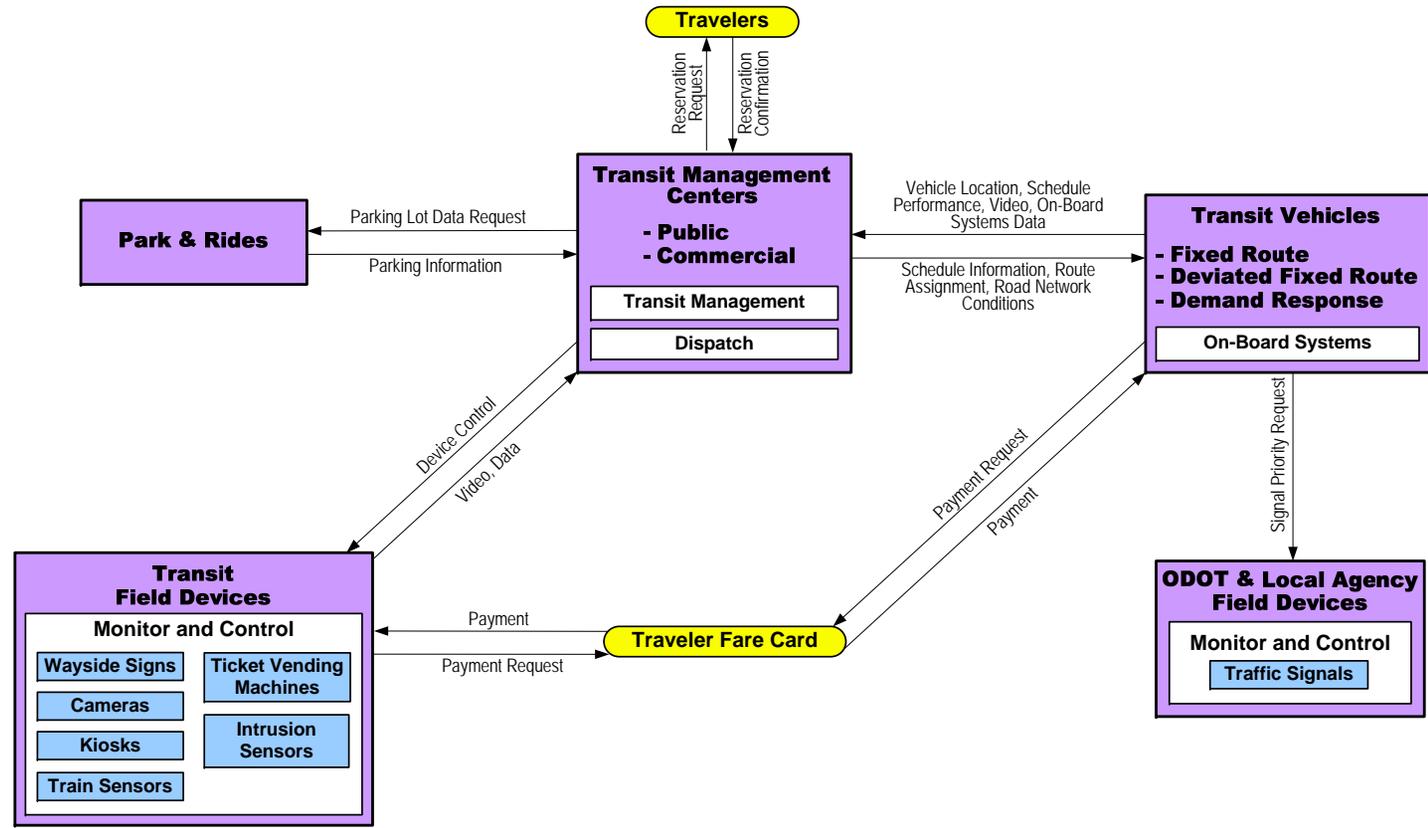


Figure 1
OREGON PUBLIC TRANSPORTATION
OPERATIONAL CONCEPT FOR YEARS 2010-2020