

PUGET SOUND REGIONAL ITS ARCHITECTURE

DISCUSSION GROUPS SUMMARY

May 8, 2000

**Submitted to:
Puget Sound Regional Council**

**PRR
1109 First Avenue, Suite 300
Seattle, WA 98101**

DISCUSSION GROUPS: BACKGROUND AND PARTICIPANTS

The Puget Sound Region has long been at the forefront of Intelligent Transportation Systems (ITS) deployment. The Puget Sound Regional Council (PSRC) is sponsoring the development of a regional ITS architecture to complete the blue print for continued development of the ITS infrastructure. In addition, the architecture will identify agreements and standards for the integration of new ITS elements and lead the way for the interoperability of regional systems.

One of the first tasks undertaken was to inventory what ITS work has already been done, and identify any needs or issues that should be incorporated into the planning process through discussions with key ITS stakeholders. From this effort, information collected will form the basis for developing a regional ITS architecture.

To this end, Pacific Rim Resources (PRR) facilitated five discussion groups with key ITS stakeholders between March and April 2000:

- Freight Systems Improvement Team (March 1)
- Traffic system managers (March 7)
- Emergency management coordinators (March 9)
- Advanced traveler information system leaders (March 30)
- Regional Transit Technology Group (RRTG) (April 27)

When possible, existing groups with an ITS focus were used to facilitate the involvement of key players, such as the Freight Systems Improvement Team. Highlights from these discussions and the participants are contained in the Discussion Group Summary section.

PURPOSE

The purpose of the discussions was two-fold: to inform the members of these ITS groups about the regional architecture project and to seek input to help shape the planning process. What follows are some of the key issues, challenges, opportunities, and suggestions that emerged from these discussions.

Due to the technical nature of ITS, PRR's approach to the discussion groups focused on probing several high-level areas that would elicit the most feedback from the participants. Key areas discussed with all groups included:

- How can technology based transportation systems better facilitate the movement of people and freight?
- What are stakeholder visions for incorporating ITS into a regional architecture?
- What are some of the barriers they encounter in achieving this vision?
- How can the PSRC facilitate the development of a common framework for ITS in our region?

In addition, the participants were also encouraged to share their ideas and comments, or any other ITS related feedback they wanted to provide the PSRC. As a result, some of the comments pertain to project specific needs or issues while others revolve around higher level policy issues or recommendations beyond the scope of the regional architecture. Efforts were made to focus the discussion on issues affecting the regional architecture, while still allowing the participants latitude to discuss ITS issues important to them.

GENERAL THEMES

While the discussion group members represented a wide-range of interests and levels of familiarity with ITS, there were several over-arching themes -- or gaps identified in the current ITS system -- that emerged from all the groups that were consistent across most of the sessions. The following are several of these themes, though more detailed results are contained in the summaries for each session.

- ***Education and Outreach are the Key.*** Most groups felt there was a strong need to educate decision-makers, the public, and businesses about the benefits of ITS. Key to this educational effort would entail quantifying these benefits to the users in a fashion that would assist decision-makers. Workshops, forums, and classes were just some of the ideas discussed that the PSRC could implement to spread the word about ITS.
- ***Support for Standards and Agreements.*** Realizing the inter-jurisdictional nature of ITS, many stakeholders felt the region would benefit from a centralized or unified effort to facilitate agreements, information sharing, standardization of systems or data, and decision-making relating to ITS. The PSRC was often seen as the organization in the best position to assume this role and also promote information sharing.
- ***Prioritization of Regional Needs.*** The region has tremendous ITS needs, both locally and regionally. Several groups felt the PSRC was the logical agency to identify regional needs and prioritize them for funding. It was also suggested that a strategy to undertake this effort should be included in the next MTP update.
- ***Centralized Information Sources.*** The volume of information collected coupled with the need to share this information among agencies points to the need for a centralized information source or network. Many stakeholders said they could benefit from maintaining one repository to gather and provide data. It was often suggested that the creation of an ITS network could serve this function. The RTTG explored the idea of centralized GIS information to assist in ITS mapping by participating agencies. It was suggested in one group that this be a strategy identified in the MTP update where the PSRC could hand-off the projects as they are developed.

- **Interoperability should be a Goal.** At most of the discussion groups, interoperability, or the current lack of it, was often cited as a major issue for the deployment of regional ITS systems. While a range of approaches were suggested to achieve this vision, the common theme expressed was that one goal of a regional ITS program should be to facilitate the development of interoperable systems.
- **Several Technology Gaps Identified.** Both the Emergency Management Coordinators and Traffic Managers advocated strongly for the expansion of cameras throughout the region. The RTTG members identified a centralized or regional GIS data source as a need and an area worth exploring through the development of a regional architecture.
- **Legacy Systems and Limited Staffing.** The lack of available funding to upgrade systems was pointed out as a significant barrier to implementing new ITS strategies --in the public and private sector. Several of the freight interests pointed out that many of their systems are antiquated, yet the benefits of ITS have not been mainstreamed so there is little incentive to upgrade. The limited staffing levels of small agencies was also seen as a barrier to undertaking regional ITS projects --this often leads to staggered implementation. The Smart Card program was pointed out as a model that should be looked at to overcome this issue for future projects.

DISCUSSION GROUPS SUMMARY REPORTS

The following sections summarize some of the key issue clusters that emerged from the discussion groups, and ideas that were suggested for addressing the issues. The suggestions provide guidance to the project. Also listed are the comments, suggestions, recommendations and feedback from each of the five facilitated discussions. When possible, lengthy discussions have been summarized into themes or summary statements.

Each session followed a similar format: A review of the goals for the regional ITS architecture project followed by a presentation on the role of the project in the MTP update, then a facilitated discussion was undertaken on the key discussion areas. Participants were also encouraged to discuss issues important to them and the ITS projects they are working on. Many participants expressed appreciation to the PSRC for extending an opportunity to participate in the project and asked to be kept informed as to its progress.

The issues and suggestions from the discussions offer the project team insight into the concerns of people who stand to benefit from or be affected by the outcome of the regional ITS architecture project. These stakeholders have shared with us their thoughts about how the PSRC might better meet the ITS needs in the region and their suggestions have implications for how the architecture can plan for current and future user needs.

FREIGHT SYSTEMS MOBILITY IMPROVEMENT TEAM – Stakeholder Feedback (March 1, 2000)

Participants: Dave Salangsang; Steve Symms; George Osborn; John Blau; Kent Christopher; Udo Mehlberg, Port of Tacoma; Dick Wolf; Greg Selstead; Kevin Chang; Scott Keller; Chris Johnson, King County; Michele Maher; Barbara Ivanov, Kent Chamber of Commerce; Stephanie Rossie, PSRC

Key Issue: Connectivity

- It was suggested by several members that ITS is looked at as “in vogue” rather than a real strategy for solving transportation. ITS projects often receive funding on an ad-hoc basis with little connectivity established between them to boost their performance. One member expressed frustration at the piece meal approach to ITS planning, and stated that the key issue that determines the success of ITS projects is connectivity.

Key Issue: Education

- There needs to be a comprehensive program to educate potential ITS users and policy makers. ITS seems to be seen as a frivolity by some decision-makers. Legislators need to understand the issues and impacts of their funding decisions.

Key Issue: Interoperability

- ITS planners need to address interoperability, and look at standardization. Most CVO stakeholders are dealing with international trade and they need to look at standardization of international traffic and cargo tracking.

Interoperability:

- need this between railroads and shippers;
- needs to be from beginning to the end of the system; and
- needs to be on the public and private side.

Key Issue: Mainstreaming

- Traveler information does not seem to be mainstream. For example, in Spokane there were safety problems with icing on I-90. Now there are information reader boards up to reduce accidents. This small improvement had a huge impact, yet this is the exception to the norm.

Key Issue: Proprietary Systems for Shippers

- The shipping industry uses a mix of systems with minimal compatibility to communicate between shippers. Compounding this problem is the fact that most shippers maintain propriety systems. Efforts need to be made to overcome proprietary systems issues so shippers can share information.

Key Issue: Rural Areas Access

- Many shippers send containers over the mountains –especially the Port of Seattle – to more rural areas. These areas need to be factored into

planning ITS improvements so that real-time weather conditions are communicated to shippers.

Key Issue: Legacy Systems and Incentives to Modernize

- Only 8% of the trucking companies are on-line right now, with most being owner/operators, which contributes to the minimal use of technology. One issue for operators is the cost or perceived cost of using ITS information and how it will affect their bottom line. Coupled with this problem is the lack of information on the benefits of ITS. Efforts need to be made to educate these operators on the savings gained through ITS and the relative costs. Presently there are few financial incentives for operators to use ITS.

Key Issue: Need Railroad Involvement

- Railroads are a huge part of the solution, but are not playing a part --they need to be a part of the ITS program in the region. Presently their information is not available to anyone else to use. The PSRC needs to bring their systems in along with everyone else.

Role for PSRC:

- Advocate for international and multi-regional ITS systems and agreements.
- Promote information sharing among all CVO users.

ITS Projects Currently Underway or Planned:

- Port of Tacoma pilot project just started to track 5 to 6 trucks and what routes they are taking; they will share this information.
- Border Project – I-5 to Canadian border demonstration ran into problems with the interoperability of systems; customs officials are using different systems.
- Working with WSDOT on tracking information for containers by tagging containers as they leave the Port of Tacoma. This information helps them ensure they are a hub and products get in and out faster.

General Comments:

- A participant felt people say trucks cause damage to the road system; if this is the case then they need to plan 30-years out for future projects.
- The Port of Seattle emphasized that they are very interested in using ITS more in the future.

TRAFFIC SYSTEMS MANAGERS – Stakeholder Feedback (March 7, 2000)

Participants: Gary Cost, City of Issaquah; Karen Freund, IBI Group; Jill Marilley, City of Mill Creek; Joe Pfundt, PSRC; Bob Cavanaugh, City of Renton; Laurie Gromala, City of Bellevue; Morgan Balogh, WSDOT

Key Issue: Regional Coordination

- The funding structure must become regional and cross-jurisdictional for ITS coordination to work effectively. Presently there are few incentives and little motivation to work together.

Key Issue: Standardization

- Metro presently has a system that is not in conformance with federal standards. This is a problem if jurisdictions have to build their systems to meet their system -- are they on the right track? If standardization is to occur, to what standards should they adhere to? Who will coordinate standardization efforts?

Key Issue: Need Information on Fiber Networks

- Need to know specifics of fiber networks; there is a need for a wide-area network approach; and they need to share information on fiber.

The Future of ITS:

- Travelers want advance notice of congestion; they need to provide options and alternate routes.
- Need better traffic count data.
- ITS could help coordination of traffic on the plateau around Bellevue.
- Recommend tying regional information on construction and traffic changes together. Private projects also need to be a part of this. They can do it – they are in Bellevue, so is WSDOT, and WSDOT is looking to go statewide.
- Need a coordinated effort to store regional data that can be shared among jurisdictions -- also need common standards. This resource could give planners route information for routing emergency vehicles.

Key Issue: Traffic Signal Prioritization.

- WSDOT --each jurisdiction has its own operational philosophy; they work with Metro and Sound Transit to try and coordinate their work.
- Everyone supports traffic signal prioritization. The issue is technical – legacy systems are a problem – and political.
- Legacy systems result in the development of parallel systems.

Key Issue: Lack of Information.

- It seems like there is not enough good information on ITS and the benefits it provides.

Opportunity: Regional Coordination

- There is a real need for a corridor level ITS project. This could become a high priority for jurisdictions once it gets going, and will to get their participation as a result.

Role for PSRC: Facilitate Discussions

- Talk with agencies about building a network as an opportunity to get to the next step for a regional ITS network. The PSRC could facilitate this information exchange.
- Help jurisdictions communicate with each other; create a transportation communication architecture.
- Promote the role of ITS to the jurisdictions, electeds, and departments. Education is also an important role.
- Move the regional ATMS plan forward. Use the MTP to require ITS elements; this would help mainstream them into the funding process.
- Promote signal prioritization. Jurisdictional cooperation is the key to the success of this.
- Talk to the local level for small cities. Start working with people at the staff level who are going to make decisions and make it happen.
- Educate electeds. Show real life examples; show what they can get for their money. The PSRC needs to get in front of the councils and try and get them to realize how important this is.
 - Write up an ordinance explaining what the intent of inter-jurisdictional cooperation is for. Write a letter of cooperation to invite discussion.
 - Provide training using ITS Washington.
 - Hold a regional conference.

ITS Projects Currently Underway or Planned:

Issaquah:

- Coordinating front street interchange improvements with King County.
- Traffic improvements to SR-900.
- Several interchange improvements coming forward.
- Would like to develop a traffic management center.

Renton:

- Video surveillance at key intersections.
- Trying to get some funding from Metro to do some ITS improvements.
- Would like to build a traffic management center; trying to find space in building is proving to be challenging.
- Would like some specifics on ITS to help them build a TMC –WSDOT’s experience with ATMS did not sound promising.

WSDOT:

- Have communications to Bellevue, Seattle and Renton.
- Ramp meters; run freeway system across jurisdictions.
- TSB adaptive control.
- Smart Trek.
- Working to get ITS in state's systems plan.

Mill Creek:

- Needs are very basic.
- Coordination is with the state, though the county runs signals; coordinating between the three groups is an issue.
- They are developing an arterial network in Snohomish County; widening major roads.

Bellevue:

- Finishing upgrade of traffic management center.
- Have a video system that they would like to expand.
- Are starting to piggyback with the telecom companies who are putting in fiber optic systems.
- People are really watching video.
- Director has asked staff to develop a five-year ITS plan for the city.
- Bothered that they are by themselves. The various systems are not talking with each other and are very guarded.

EMERGENCY MANAGEMENT COORDINATORS – Stakeholder Feedback (March 9, 2000)

***Participants:** Stephanie Rossi, PSRC; Dave Rider, WA EMD; Roger Serra, Snohomish County DEM; Steve Bailey, Pierce County DEM; Eric Holdeman, King County OEM; Pamela J. Davis, King County Service Comm.; Terry Simmons, WSDOT; Daryl Rush, WSDOT; Kelley Gali, City of Snoqualmie; Michelle Halve, City of Kent; Bill Johnson, City of Kent; Leonard Smith, WSF; Paul Lavalle, IBI Group; Darryl Russel, Washington State Patrol; Chuck Duffy, City of Renton Fire Department; Lynn Oliver, City of Kirkland.*

Role for PSRC:

- Coordinate and prioritize regional needs to support funding of projects.
- Coordinate a jurisdictional agreement on how to act; there is a need for a mechanism to address this.
- Develop a regional status board that someone could input information on and someone else could get the route information they need; a database center or network could work. If they develop a regional plan, they need to communicate to the EMC's their role in the plan.

Starting Point for the PSRC:

- Agencies or the PSRC need to build on what they have and realize they are just starting to use new technologies now. Efforts should start with the WSDOT system, and then create a centralized information system.

Key Issue: Elements to Include in Architecture

- Backup Radios:
 - Four have been implemented; Whatcom and Island Counties will be coming soon. The Puget Sound Plan is basically in place.
 - Presently they have the ability to transmit information, though they are just not doing this yet.
 - Issue: Unclear on the expectation for their use -- what is the intent?
 - EMC's are interested in some type of testing schedule for the radios.

Key Issue: Need More Cameras

- Real-time cameras are very valuable to EMC's. They need real-time visual information to assess accidents, how many lanes impacted, if hazardous materials are involved, and other relevant information. This is useful for directing appropriate resources.

Key Issue: Lack of Resources

- The EMC's have a severe lack of the ITS technology. This problem is compounded when jurisdictions act in their own interest and without regard to regional integration needs. There is a need to make resources available if the goal is to have a regionally coordinated ITS effort.

Key Issue: Interoperability

- Presently there is no common system to provide and receive information; King County uses INET and WSDOT a fiber system. Standards are needed to provide guidance for procurements in the future. Jurisdictions are hesitant to upgrade if they are unsure of the direction they should upgrade.

Key Needs:

- Need a cross discipline system for incident information if it concerns EMCs; they also need to think about coordinating with private systems.
- Use ITS for assigning priority routes, and for programs such as bridge retrofit/critical routes, and snow removal.
- Need accessible information that can be retrieved from any jurisdiction.
- Need to educate the political systems. Many of the problems are a process related and ITS won't solve these issues, but education and information would help.

Opportunities:

- Create a verification piece as a part of the ITS planning.
- EMC's would like to know if other situations are occurring near their jurisdictions that could impact them. They also need advanced knowledge of events to begin planning responses.

Key Issue: Long-term Vision

- Providing information and building on-line systems is good for short-term needs, but they need to think about how they will act with a long-term event. Systems need to be in place that can handle a major event with disruptions that last years.

Key Issue: Freight Mobility during Major Events

- Planners need to look at distribution centers and where goods are coming from during a major event that has long-term disruptions. Ports need to be able to plan for ITS systems that take this into account.

Key Issue: Evacuation is an Issue Regarding Roads

- They should look at the planning that is underway in California and how they do regional planning that is not done here. Currently EMC's share plans with neighbors, but they need to think regionally, e.g., look at impacts of a major event on infrastructure, economics, and localized disruption planning.

Key Issue: Role of ITS

- EMC's should not look to ITS to solve EMC problems. ITS is a tool that they can use, but many of their problems are institutional and also the result of limited resources.

Key Issue: Lack of Planning

- There is a lack of emergency management planning on a regional level and infrastructure in place to communicate during a major event.

Key Issue: ITS Planning Needs to include the Ferry System**ITS Projects Currently Underway or Planned:*****City of Kirkland:***

- Working on a regional plan using existing fire zones, across jurisdictions.
- Working on earthquake preparedness.
- Common elements: public safety, resources, contracting, and restoration goals.

City of Snoqualmie:

- Need ability to communicate road conditions quickly to residents at start of an event from their Emergency Operation Center.
- Sending out emergency information is a critical need.
- Follow state umbrella plan: Common language; 16 jurisdictions in King County are recognized EMCs.

King County:

- Working on life-line routes with 39 communities using a GIS platform, on web, and available on CD-Rom. They need to coordinate the priority routes between jurisdictions.

WSF:

- Need to know road information during an event; are roads open, routes closed?

WSDOT:

- Would support the concept of a centralized system with regional coordination.

Pierce County:

- Currently working on a Port-to-Port plan to develop individual plans for specific events to coordinate when a major event happens that affects transportation of goods.

ADVANCED TRAVELER INFORMATION SYSTEMS (ATIS) – Stakeholder Feedback (March 30, 2000)

Participants: Joel Pfundt, PSRC; Dave McCormick, WSDOT; Karen Freund, IBI Group; Peter Briglia, WSDOT; Chris Cleutt, Batelle; Don Loseff, GRTMA; Marck Hallenback, TRAC; Ron Borowski, SeaTran; Melanie Moores, WSDOT; Tom Friedman, King County Metro; Dan Overgaard, King County Metro; Ed Eick, PSRC; Duane Daniels, Greyhound Lines; Bodie Lyon, Greyhound Lines; Roger Dean, Intercity Transit; Brady Rowe, Traffic Station.

Key Opportunities Identified:

- Greyhound is interested in placing traveler information at Amtrak stations, transit centers, and the airport. Currently there is a big communication problem between Greyhound and other modal stations. The technology is there, they just need to get people to use it. Greyhound is interested in setting up traveler information kiosks in transit centers, and would maintain them. The goal is to provide customers with modal choices and real-time travel information.
- The E 911 number will soon create opportunities to access more information in the future, though cost is an issue. The technology is available, but how they will pay for it is uncertain.
- Microsoft's hand held group has expressed an interest in providing ATIS to their customers and contacted TRAC.
- A key opportunity for ATIS is getting accident information back to hospitals prior to the arrival of injured passengers.

Role for PSRC: Develop and Deliver ITS Message

- PSRC is in a unique position to deliver the ITS message to electeds and policy makers in the region; support of elected officials is critical to ITS.
- PSRC could lead efforts to gather and disseminate information to quantify benefits of ATIS.
- Need to communicate /educate the public about ITS and how it is good use of money.

Key Barriers to Integrating ITS:

- Legacy systems are expensive to upgrade during time of limited resources.
- Need to increase reliability of ITS information.
- Political will is not there for transit systems and ITS. The message has not gotten to decision-makers about the benefits of ITS.
- No way to place the value ITS has as a part of a grant application: What is the benefit ITS has for community – can't quantify this value very well currently.

Key Issues between Public Side and Private Side: Who should do what?

- Need private side to help communicate the ITS benefits to elected officials.
- Need to let private sector have traveler information and make a business of ATIS. If private sector does not do it, then the public side will step in.
- On transit side, it's hard for someone from the outside to get information without a lot of work on their part. Trying to provide this information seems to add to the work agencies are already undertaking.
- A question that still needs to be answered: Is there a market for traveler information to be profitable on the private side?
- Not sure what the transit market is? Who's on the bus? It's difficult for the private sector to quantify the market for transit ridership and how to tap into it.

Key Issue: Role for ATIS

- Can ATIS information encourage people to get out of cars? Should a goal of ATIS be to promote HOV? Currently it does not seem to encourage a mode shift, and perhaps it even promotes single-occupant vehicles.
- There is a policy level decision on the role of ITS in getting people out of SOV's. Should the PSRC weight projects differently if they benefit HOV or SOV? Should they set up funding criteria that addresses this goal?
- On private side, they would like to provide public side information that shows HOV use.

ITS Projects Currently Underway or Planned:

WSDOT:

- Web site is very popular and gets a tremendous amount of use.
- Use TV stations/ metro networks to deliver a lot of their information.
- Just starting to send out e-mail alerts for major incidents.
- Highway radios and roadside phones are available for travelers.
- There is a lot of intrerjurisdictional cooperation with State Patrol and signal operators.
- Ferry traveler information just coming on-line; it will give out driver information at the dock about travel conditions, blocked routes, etc.
- CVO technologies being deployed to facilitate weigh station operations at several pilot sites.
- Presently, ATIS efforts are expanding from the Puget Sound to more of a statewide basis.
- Cameras have been installed in Spokane, Tacoma, Vancouver; Blewitt and Stevens Pass cameras coming on line soon.
- R weather page is now up which provides travel and weather information; they are getting positive comments and will add road conditions soon.
- Looking for opportunities to tie with long distance traveler information services from other states to create a seamless network.

- CARS – radio operators can send information to the web site construction information; will be on web with icons soon.
- Working on I-5 trade corridor from California to Washington for truckers to receive traveler information in corridor. The private sector could also use and provide information for this as well.

Redmond:

- People can find van and carpool partners through the Ridequest program that uses an Internet web page to match riders; it has been operating for less than a year.
- King County is adopting the technology for countywide online ride-matching service.
- Presently they have 1700 users, 500 active. They lose people when they transfer jobs.
- New technologies coming on line will make it easier to connect vanpool members using wireless phones.

Batelle:

- See leading technologies as cellular or wireless; personal computers in autos are starting to bring information to travelers on a regular basis.

City of Seattle:

- Starting to build on master ITS plan that was just developed; would like to improve traffic management center with new equipment, better signalization and controllers.
- Would like to improve transit prioritization, reader boards for schedules, and will set up three new cameras soon; goal is to expand up to 30 cameras in five years.
- Starting to undertake a three-year program to improve freight mobility in the SODO corridor. The goal is to reduce signal delays and implement traffic control strategies in areas around the new stadiums.
- The freight community has said it is interested in working on ITS with the City.

TRAC:

- Currently looking at how information that comes from the various systems can be converted into something the public can use on a display system.
- Trying to collect information on freight movement. They have installed vehicle probes that will collect data for planning purposes. They are interested in compiling tracking data for planning purposes, and also to use it in corridor management. A map showing movement information could be provided to public and private sectors. On private side, tagged vehicles would let shippers know where their vehicles are.
- Beginning to tag containers with tracking systems to facilitate the efficient movement of goods.
- Have compiled a large amount of data; would like to use it for modeling.

- Starting to work on recording speed measurements using cameras.
- Beginning to use transit vehicles to provide information on what's happening on the roads.
- Presently they are external to the agencies and doing things ahead of many agencies.
- My Bus technology allows users to predict arrival times for buses.
- Many private companies have expressed an interest in the predictive capabilities of new systems they are working on.
- Traffic-TV has been tested and is working.
- ITS improvements are being tested on SR-395 with the help of federal funding.
- Forbis developed technology to display flow map on Palm Pilot using wireless modem.

King County:

- Started providing e-mail traffic alerts during major events.
- Bus View is up and running.
- My Bus is working.
- Metro on-line is up and provides schedule information and delays.
- On-line version of trip planning program coming later this summer, which will provide point-to-point transit planning. New York is undertaking similar system on a multi-jurisdictional level. Greyhound uses a similar trip planning service.
- Bus Time allows users to call up to get next bus information for a specific bus stop.
- Trip planning service will include three county area and Sound Transit; multi-jurisdictional trip planning will come shortly.

Greyhound:

- Currently testing new on-board communications systems.
- Starting to develop point-of-sale kiosks at areas out of downtown to de-centralize focus of system from downtown Seattle. Standardization of equipment and sales are priority projects.
- Would like to get buses off roads during peak trips and also bypass downtown.
- Camera on Snoqualmie pass has saved a lot of time and widely used.
- Starting to install GPS on buses. System will help to track buses in the various pools that are operated.
- Integrating California, Oregon and Washington is a goal.

Inter City - Olympia

- Starting to invest in two-way radios, but would like to connect with other systems and want to plan in a way to make sure they don't preclude themselves from doing this.
- Will be starting to develop a regional architecture in next few months.

- Would like to follow the example of what's going on in Seattle so they can interconnect later.

Traffic Station:

- Have started in Seattle with 2.0 version of software this past fall, 3.0 will rollout in June.
- Traffic Station provides personalized traffic information for wireless devices and soon Palm Pilots.
- They rely on public agencies to provide some traffic condition information.
- Version 3.0 will provide congestion information in vehicle and with cell phones.
- Their web site provides real-time traffic information to the public including e-mail alerts.

REGIONAL TRANSIT TECHNOLOGY GROUP (RTTG) – Stakeholder Feedback (April 27, 2000)

***Participants:** Paul Lavalley, IBI Group; Glen From, PB Ferradyne; Monica Welle, PB Ferradyne; Lana Nelson, Sound Transit; Richard Eaker, Sound Transit; Terence Plaskon, Sound Transit; Joel Pfundt, PSRC; Nick Roach, Sound Transit; Dan Overgaard, King County Metro; Catherine Bradshaw, UW-TRAC; Roger Dean, Inter City Transit*

Key Issue: Limited Resources of Smaller Agencies

- Agencies have different staffing levels to take on new projects or ITS initiatives. Smaller agencies have a hard time staffing new projects and keeping up with large agencies. The Smart Card project is a good example of regional cooperation and also a model of how a few people can do the work for the smaller agencies –would be a good model to try again.
- Smaller agencies also have limited capabilities to take on new work. The regional signage system showed that some agencies do not have the resources to take on new work and pull information together effectively.
- Staffing levels of agencies vary and so do priorities. This results in staggered implementation of different systems. The message needs to be sent out that ITS and interoperability have serious financial benefits and their customers are demanding interoperability.

Key Issue: Focus on Infrastructure Needs

- Typically agencies deal with ITS as an end product for their customers, though infrastructure is the real issue for many agencies. GIS is a good example of this, it does not get a lot of attention, but it needs attention. The various GIS systems in use are not in sync so much effort is spent trying to reconcile the differences when working on inter-jurisdictional projects.

Role for PSRC: Provide Centralized GIS Information for Region

- It was suggested the PSRC could help oversee and guide the development of a centralized GIS system for regional use. In Portland, they pulled together all the GIS information for all the jurisdictions and agencies. It was not easy, but after they worked through the issues it is now seen as a success. Some issues identified for accomplishing this included: who would maintain the system and the political issues would be very complex; there is some history of resistance to this though the regional trip planning project has started to address these. Sound Transit has been using various GIS systems for planning their projects and the decentralized nature of the GIS data makes it very difficult to plan projects. It was pointed out that one obstacle is that each interest has a different need for different information – some like parcels, others centerline, etc.

- The PSRC could organize a discussion on a regional level regarding GIS needs and opportunities for regional integration.
- A regional GIS system should be undertaken as a part of a project or a bundle of projects; they need to set up the need for the system first. AVL could be the catalyst for undertaking the development of a regional GIS system. Suggested approaches included:
 - Undertake local planning for specific jurisdictions
 - On a regional basis, do something that is best if done regionally, but is not time sensitive
 - Interoperable projects such as GIS, Smart Card, etc., are best if done regionally now in support of a regional ongoing project. Key regional project areas could include signal prioritization, fare collection, and customer information.

Role of PSRC: Education

- Tie MTP policies to ITS needs. Coupled with this is the need to educate policy makers on ITS so the policies are put in the MTP and not seen as just "toys."

Role of PSRC: Raise Need for Centralization

- The PSRC needs to raise regional interoperability as a regional goal. The ITS backbone creates an expensive system that does not look good long-term. There is a need to fund and operate a centralized system. PSRC could develop strategies for centralization and hand-off –Houston does this. This should be identified as a strategy to be addressed in the MTP.

Key Issue: Identifying Costs and Benefits

- Cost is difficult to quantify and leaders seem to focus on this. Need to educate the leaders so they understand the context of the ITS discussion and the benefits ITS gives them. The PSRC needs to develop consistent messages for all ITS projects that articulate the benefits relative to the costs.

Key Issue: Long-term Support for Demonstration Projects

- Demonstration projects get started and then they take on a life of their own, and never go away or move beyond demonstration stage; eventually they get added to the budget. The concern is that there is no clear mission for them or decision made if they should continue as a program so they continue to drain resources without an end in sight.

Key Issue: Integration of Diverse Information Needs

- Sound Transit has different information needs: they want to move trains quickly and on schedule, but with LINK or buses they have different information needs that are more traditional, focusing on accidents or traffic delays of where they are operating. The issue is how they will port the

various information needs and sources into an integrated system for them, but also other regional providers that link with their system.

Opportunity: Prioritize Regional Needs

- Prioritization of regional needs is a role PSRC could assume. PSRC should set up the criteria by which projects receive funding on a broad multimodal basis; what should come first, second, etc.

Opportunity: Focus Standards on Data instead of Technology

- The discussion about standardization should perhaps move beyond standards in technologies and focus on the data level instead. This allows people to be interoperable at the data level, which is the most critical piece. Focusing on data would allow them to use different equipment as long as the data was the same, or they had the ability to translate to a standard data level that others could use.

Role for PSRC: Regional Coordination

- How can they prevent counties from acting unilaterally? Perhaps the PSRC could address this from the traffic side by holding forums or workshops that bring people together to discuss ideas and issues -- education is a key component for the success of ITS. Information that is produced is not disseminated well.

ITS Projects Currently Underway or Planned:

King County

- Currently working on regional trip planning; transit schedules are on-line; AVL is up and running on buses; just starting signal prioritization; and plan to do AVL on paratransit in 1 –5 year timeframe.