# **Puget Sound Regional Integrator Proposal**

Prepared by:



Fox Integration, LLC May 11th, 2005



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President John Ladenburg Executive Board Puget Sound Regional Council Seattle, Washington

Dear President Ladenburg and Members of the Executive Board:

Recently, the Puget Sound Regional Council (PSRC) issued a Request for Proposals from private organizations to aid with the coordinated deployment of Intelligent Transportation System (ITS) technologies in the Seattle area. We at Fox Integration quickly responded to the request, as we have long advocated for a new, region-wide organization that shepherds integrated deployment, management, and maintenance of technology on the physical infrastructure. We see this proposal as an opportunity to articulate our arguments in favor of a regional integrator for ITS and to promote our team of experts as the best-equipped contractor to handle this challenge.

We, Fox Integration, hereby submit the enclosed proposal to act as Regional Integrator—under contract to the Puget Sound Regional Council and on behalf of all transportation-related organizations in the 4-county Seattle area—to the Council for their most favorable consideration.

Best regards,

Bridget Downey, Travis Dunn, and Patrick Hart Fox Integration, LLC

## **Table of Contents**

The Puget Sound Region	1
Existing Challenges in the Puget Sound Region	1
Existing ITS in the Puget Sound Region	2
Toward ITS Integration in the Puget Sound Region	3
Focus 1: Flexibility	3
Focus 2: Overarching Consistency	4
Focus 3: Congestion Pricing	5
Focus 4: Understanding Our Customers	8
Focus 5: Seamless Transportation System	9
Role as Regional Integrator	9
Testimonial	12
Conclusion	14
References	15

# **The Puget Sound Region**

In 1999, 3.3 million people inhabited the Puget Sound Region of Washington State, making it the nation's 13th largest metropolitan area, and reflecting a 10% increase over the 1990 population.<sup>1</sup> Seattle, the major city in the region, accounted for about one-sixth of the total regional population in 1999 and also grew at a rate of about 10% between 1990 and 1999.<sup>2</sup> In part because of its curious geography and high rates of population growth, congestion appeared and grew quickly in the

last two decades. The Texas Transportation Institute's Annual Mobility Survey ranks the Seattle region 20th nationally for average annual traveler delay, with 46 hours per traveler in 2003.<sup>3</sup> Congestion remains one of the region's most serious concerns.

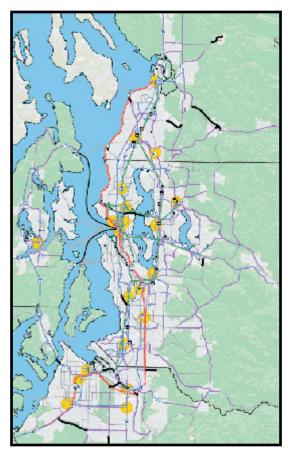
The Puget Sound Region's transportation system is complicated by a preponderance of water and mountains. Downtown Seattle sits at the center of an isthmus separating Lake Washington from Puget Sound. Other major population centers include Tacoma to the south in Pierce County, Everett to the north in Snohomish County, and Bremerton across the Sound in Kitsap County. Grey-shaded areas on the map indicate the Urban Growth Boundary; the boundary was imposed by the state legislature in the 1990s with the intention of targeting development within specific sections of the region. Further confining the region are the Cascade Mountains to the east and Olympic Mountains to the west.

# **Existing Challenges in the Puget Sound Region**

Like many American cities, Seattle's ability to provide conventional infrastructure to meet growing travel demand is hampered by financial, environmental,

and political constraints. Increasingly, the region is turning toward technology (Intelligent Transportation Systems, or ITS) to provide additional capacity and congestion relief. Beyond congestion relief, planners and regional leaders see ITS as an enabler of other strategic objectives such as roadway pricing, flexibility, and improved customer service.

To that end, the Metropolitan Planning Organization (PSRC) and a team of consultants brought together regional stakeholders in the process of creating the Puget Sound Regional ITS Architecture, a document that lays out the system requirements for deploying ITS technology in the Seattle region. More specifically, the architecture described the physical and institutional linkages among many stakeholders in the region.<sup>4</sup> Accompanying the architecture is an ITS Integration Strategy which describes the strategies and steps to be taken in order to integrate existing and future technology in Seattle.<sup>5</sup>



Puget Sound Region

We at Fox Integration do not think that the architecture and integration strategy alone, however, are enough to ensure comprehensive integration of ITS for a variety of reasons:

 $\cdot$  There are over 70 existing transportation-related organizations in the Puget Sound region, including 7 transit agencies, 4 counties, and dozens of municipalities. The largest municipality, Seattle, has less than 20% of the region's population, indicating that population, power, wealth, authority, and transportation resources are spread over a large number of actors.

 $\cdot$  The metropolitan area encompasses an area of over 6000 square miles, a geographic scale that does not correspond to the scale of any existing governmental entity in this part of the country (e.g., city, county, or state).

 $\cdot$  Between 1990 and 2000, 13 new cities incorporated in the region, adding new voices, opinions, and interests to the transportation system.

 $\cdot$  Over 35% of the region's population continues to reside in unincorporated territory, highlighting the imminent growth of existing municipalities and formation of new municipalities.

 $\cdot$  The region's strategic goals include road pricing (ultimately network pricing), flexibility, and improved customer service, all goals which are better achieved through broad, region-wide ITS implementation.

Together with Destination 2030, PSRC's long-range transportation plan, the regional ITS architecture does not seem to be enough. Rather, the documents specify goals and plans, but leave the implementation to a group of decentralized agencies. We interpret the PSRC's RFP proposal as an invitation to establish ourselves as an integrating agency that leads deployment of multi-agency ITS initiatives on a project-by-project basis. We will do so knowledgeable of the Puget Sound regional context (politics, transportation, and ITS) and of several focus areas that comprise the goals of the region's leaders.

#### **Existing ITS in the Puget Sound Region**

The Regional ITS Architecture and Integration Strategies identify future ITS deployment and linkages, but also recognize that there is an exiting inventory of ITS infrastructure and institutional linkages. Briefly, we summarize these technologies:

• Freeway management: Washington State Department of Transportation (WSDOT) operates an "extensive freeway traffic management system," including vehicle detection equipment, cameras for closed-circuit television, ramp meters, and variable message signs (VMS). WSDOT feeds information from this equipment to traffic management centers in Shoreline and Tacoma.

 $\cdot$  Many cities and counties in the Puget Sound region own and operate traffic signal control centers, all capable of expanding capabilities to include other functions such as those of the WSDOT centers.

 $\cdot$  511 traveler information.

Other technologies such as transit fare coordination, transit traveler information, transit signal priority, Advanced Transportation Management Systems (ATMS), and electronic toll collection are

still being developed.

#### **Toward ITS Integration in the Puget Sound Region**

In moving toward integration of ITS in the Puget Sound Region, organizations must:

- $\cdot$  Identify technologies that they believe will deliver benefits to their transportation service;
- $\cdot$  Plan for adoption of those technologies through acquisition of human, financial, and capital resources;
- · Invest in those technologies; and
- $\cdot$  Manage and maintain those technologies.

Because this process requires sustained investment and commitment, academicians and practitioners alike recognize that promotion of ITS alone will not result in widespread deployment. To date, this has been the experience in Seattle. A regional integrator, however, can push organizations toward adoption of technologies because we recognize the full scale of benefits to users and organizations across the entire region.

In this proposal, we present our case for regional integration and for selecting Fox Integration as the regional integrator in the Puget Sound Region, by presenting Fox Integration's Five Focus Areas: Focus, Overarching consistency, Congestion pricing, Understanding our customers, and a Seamless transportation system.

#### Focus 1: <u>F</u>lexibility

Fox Integration has experience creating options, or flexibility, in regional transportation systems. The other regional systems in which we have worked have become less congested, safer, and easier to navigate, all as a result of the implementation of ITS technology. We firmly believe that the operational flexibility that can be "built" into the transportation system is a benefit of ITS which cannot be realized through construction of additional infrastructure: ITS is flexible and infrastructure is not. With the rapidly changing Puget Sound Region, the transportation system

needs to be flexible. As Regional Integrator, we will work to incorporate ITS technologies into the planning process for the system and regional architecture such that the PSR system can realize benefits of flexibility consistently throughout the region.<sup>6</sup>

Flexibility of the system can be compromised when influences from outside the region begin to impact the system's operations adversely. The value that had been added to the system by the ITS technologies is then no longer maximized. An example is if a town outside the region decides to

implement some ITS technologies to its transportation system. If the technologies that are deployed by this town are not integrated into the neighboring systems, then the ITS implementation will not live up to its full potential for effectiveness. If the town pursues a wholly divergent approach (conventional infrastructure, for example), then such decisions souch also be addressed regionally such that the convergence of a flexibility-minded jurisdiction and an infrastructure-centered jurisdiction

do not conflict. For the Puget Sound Region's ITS Architecture to be effective, the architecture needs to be clearly defined and have the ability to be easily amended; the Regional ITS Integrator will fulfill that role. The flexibility in this case would derive from an architecture that would "allow changes in operations across geographic areas over time."<sup>7</sup>

Fox Integration is knowledgeable of the barriers that exist in organizations toward the consideration of what we call "paying now for what we'll see later." We have tackled these issues in other cities by developing trust among public and private organizations.

## Focus 2: Overarching Consistency

Fox Integration is knowledgeable of The National ITS Architecture rules enforced by the Federal Highway Administration (FHWA). The rules are applicable to any project that receives funding from the highway trust fund. The standards serve to assist with both "technical interoperability and institutional coordination"<sup>8</sup> guidelines for local governments that are developing a regional architecture.

The goals of the architecture are to "provide a common structure for the design of ITS systems...and a way for the system to connect to share information,"<sup>9</sup> provide flexibility to a region for they way they choose to develop the architecture, provide savings from duplicate development of ITS technologies, and to have a region whose size accurately reflects the intended distribution of ITS technologies. These goals are useful for achieving safety and efficiency benefits in the region.

Fox Integration would have modified these rules to make them more effective in achieving an optimal system by not necessarily mandating an "agreement" between the region's agencies. For a region to develop an ITS architecture in a reasonable and painless manner, a particular group should take leadership to see that the region's ideas for roles, responsibilities, and shared operational strategies are incorporated. Each stakeholder in the region can provide Fox Integration with their ideas, and as Regional ITS Integrator we can work to optimize the ITS architecture in a way that will benefit the entire region and not be biased toward one particular geographic area. Such a method of establishing a regional ITS architecture is likely to require a significantly smaller time investment on the part of each agency. An additional goal for The National ITS Architecture that might be appropriate is to encourage the development of a regional ITS architecture beyond the advertisement of the \$150,000 cost savings benefit for following the FHWA rules.<sup>10</sup> The encouragement can be derived from subsidizing subsequent ITS projects for a region that strictly follow the FHWA rules. Hence, Fox Integration would look to influence the National ITS Architecture by promoting several implementations of ITS technologies in a region.

## Focus 3: Congestion Pricing

Congestion on the arterials and freeways in the Puget Sound Region is one of the prime concerns that Fox Integration will address. We will focus on the strategy posed by the PSRC, to achieve "more rational transportation pricing."<sup>11</sup> The delays and stress imposed upon drivers, along with the millions of dollars lost due to regional congestion, can be decreased with the implementation of various forms of roadway pricing. Most importantly, congestion pricing provides the opportunity to differentiate service for customers: some will choose to pay more for premium services, while others will choose to alter their modes, routes, or times of travel.

Since congestion pricing is information intensive (drivers need complete information), ITS is needed to implement the system. Road pricing is a necessity in the region since physical capacity limits have been reached on the region's arterials and freeways. Congestion can be addressed most effectively through a management strategy that addresses the supply and demand issues of the network. If external costs such as congestion of a particular trip are internalized through pricing, then the transportation supply will be able to meet the region's demand more efficiently. As a result, transportation costs for the public agencies in the region will decrease, while pricing affords a new source of revenues. These revenues can be used to fund Fox Integration's operational costs, such that our services will be at no additional cost to the region.

The particular pricing scheme selected for a region is of great importance. In order to reflect the needs of the Puget Sound Region most accurately, Fox Integration utilized the "Road Pricing Decision Analysis Tool" (RPDAT), created by Mr. Jeffrey Ensor of MIT.<sup>12</sup> Using the model's multicriteria analysis and system of trade-offs, we were able to reflect the PSRC's goals for the Region. The regional priorities that were used as inputs to the model were created generated by the PSRC, upon request.

The Ensor Model revealed that the network pricing (implementing congestion pricing on the region's expressways, major arterials, minor arterials, and potentially even on local streets) strategy would be most suitable for the area. There are nine possible strategy results from the model, and the following methods of pricing are some of those included (outlined by Mr. Jeffrey Ensor):

**Network Pricing:** Network pricing is the purest form of congestion or marginal-cost pricing, i.e., it is first-best pricing.

**Distance-based pricing:** Distance-based pricing requires vehicles to pay charges that are based on the number of miles traveled.

**Area-wide pricing:** Area-wide pricing charges vehicles a fee for crossing a cordon (central business district) surrounding a defined area, driving within the area, parking on public roads inside the area, or a combination of these measures.

**Cordon pricing:** A form of area-wide pricing, but vehicles are not charged for traveing within the cordon zone.

**Express (e.g. HOT) lanes:** Express lanes charge certain vehicles for the use of dedicated (managed) lanes on an expressway that have a premium level-of-service (LOS). HOT lanes allow HOVs to travel on the express lanes at no charge or at a discount.

**Facility (congestion) pricing:** Similar to traditional tolling, but the tolls vary either by level-of-congestion or time-of day.

**Conventional (flat-rate) tolling:** Tolling all lanes of a facility with a charge that does not vary by level-of-congestion or time-of-day.

The regional priorities with which the PSRC provided Fox Integration proved to be consistent with the national perspective on congestion pricing: a strategy of 'no pricing' was 10% as likely as a strategy of network pricing. Therefore, capacity on the regions roads can be more easily reached by way of a congestion pricing strategy.

<u>Strategy</u>	Index Scores
Network Pricing	223
Area-Wide Pricing	89
Add New HOT Lane	81
Convert HOV to HOT Lane	79
Cordon Pricing	77
Facility Pricing	63
Distance-Based Pricing	57
No Pricing	24
Conventional Tolling	22

Ensor Model Results

Mr. Ensor noted that network pricing is somewhat of an "ideal" in the minds of transportation professionals, and is unlikely to be an immediate, viable option for the region. Of the nine total possible strategy results from the model, the next three that were highly suggested were instituting area-wide pricing (charge based on distance traveled), adding new HOV or HOT lanes, and converting HOV lanes to HOT lanes. These strategies can be more effective and politically feasible in the short term given the regional characteristics and goals. Although skeptical of the practicability of network pricing, Fox Integration recognizes that, in the longer term, network pricing appears to be a more suitable and desirable objective than interim strategies such as conversion to and expansion of HOV and HOT lanes. By having a leading regional organization for the PSR, implementation of transponders, ramp meters, and other ITS technology that are required by network pricing, could be more easily deployed and managed. It is important to note that the Ensor Model is not intended to determine whether pricing is a "go or no go" for the Puget Sound transportation system. Rather, the strategies that were mentioned are ranked in order of most likely to succeed. Cost benefit analysis and deployment of the technology also need to be taken into account before any further action is advisable.

Example of the criteria for which the user is probed to enter into the Ensor Model include weighted priorities such as "reduce travel time", "increase travel time reliability", and "consider equity". As the user enters more layers of data into the model, the priorities become more specific. For example, the reduced travel time priority branches into "decrease average travel time for all peak-period trips on expressway(s)" and "decrease average travel time for all mid-day trips on expressway(s)." The constraints given by the model include the sections that ask the user to rank the priorities "promote automobile ownership" and "reduce vehicle ownership growth rate." In this instance, the PSRC committee that defined the inputs wished to mark each of these "No" (as this criteria was evaluated on a "Yes" or "No" basis). However, the user was only allowed to have entries

that were opposites, so the code forced the user to follow this rule. Other constraints include the lack of accurate data for all of the inputs, and also the complexity of the geographic layout of the Puget Sound region. There were numerous inputs in the Ensor Model that had specific geographic references, which hare difficult to address in such a region.

Maintenance and operation of the over 10,000 miles of regional arterials and state freeways in the Puget Sound Region carries a hefty price tag; the estimated total cost is roughly \$105 billion over the next 30 years. In order to fund the Region's "Destination 2030" transportation plan, the annual rate of transportation tax dollars would need to be double the amount from 2001. <sup>13</sup> The Region can not rely solely on the funds from public agencies in order to have the capital required to maintain and operate the transportation system. Those drivers who travel through and around the Puget Sound Region need to contribute, and road pricing is one manner to achieve this level ground.

For the most efficient use of these strategies, one central organization should hold the legal authority to control pricing across the region. We firmly believe that if one or more of these strategies are incorporated into the specific bottleneck areas of the Puget Sound region's freeways and arterials, then residents can expect more efficient utilization of capacity, while agencies can expect some additional revenues.

#### Focus 4: Understanding Our Customers

In the past, the focus of transportation providers has been solely on maintaining traditional

infrastructure and providing a sound level-of-service. By operating without any competition and with public funding, transit providers and DOT's did not have to take into consideration the needs or concerns of passengers. As transit systems approach capacity and congestion on our nation's roads increases, system users are demanding better information to plan their commutes and trips.

At Fox Integration we understand that the focus of transportation providers in the 21st century will shift from simply providing infrastructure to an "ultimate goal of improving travel for users of the transportation system."<sup>14</sup> Serving as regional integrator, Fox Integration can help transform the seven transit agencies and various DOT districts in the Puget Sound region to "customer-centric" organizations.

Information technology will play a critical role in reaching this "ultimate goal" in Seattle and the surrounding environs. Varying ITS solutions, in particular Advanced Traveler Information Systems (ATIS) can improve service and information that all end-users receive. Fox Integration appreciates the diverse needs present in the Puget Sound Region including those of transit passengers, automobile commuters, commercial vehicle operators, as well as

freight interests in the region's numerous ports. The immediate program our firm wishes to implement will "provide effective, end-to-end, seamless, multi-modal transportation services for people wherever they live, work, and play regardless of age or disability..."<sup>15</sup> After analysis of existing systems and relationships, our firm has the following recommendations for the Puget Sound Region:

**1. Increased use of ATIS** – Advanced Traveler Information Systems encompass various ways of providing information to transit and highway users. Real-time data concerning transit conditions, traffic conditions, delays and so on can be utilized by system users to better plan trips. There are many ways of relaying the information to the end-user, including variable message signs on highways and at transit stops, along with the Internet and cell phones among others.

The SmartTrek website operated by the Washington State Department of Transportation, along with regional 511, already provides extensive information regarding highways, rail, and ferries in the region. SmartTrek users can receive an abundance of information from the level of congestion on highways to delays caused by construction. Customer satisfaction with these services is high and continuation of these services is strongly suggested. However, we also propose to maintain and strengthen relationships with existing information service providers who still serve many travelers through traditional media channels, such as radio and television. Further advertising of the website along with other means of relaying the data focused at those who are less "technology savvy" is still necessary.

In regards to transit, there is no comparable website or system to help users plan a trip. The prospect of crossing over several transit systems, each with different schedules can be quite daunting. Our firm suggests creating a system that will create a comprehensive transit itinerary either through the Internet or via telephone. Such a system will increase the number of passengers making intermodal transfers, along with the usage of transit.

**2. Implementation of a Regional Fare Card** – Transit users in the Puget Sound Region can make use of the facilities and vehicles of seven transit agencies. An integrated fare card will allow transit users to utilize one card on all of the systems. The card will provide increased convenience to customers and will result in cost savings for transit agencies. Confusion over fares on the various systems will be eliminated as a result, and intermodal transfers will become closer to being "seamless." In addition, ridership data provided by the "smart cards" can be used by transit planners to adjust schedules and frequencies along routes – allowing them to optimize system performance along with providing the best possible service.

#### Focus 5: Seamless Transportation System

The concept of a "seamless" transportation network will accommodate the easy transfer of goods and people between the various modes of transportation. The vision of this type of network will only be realized through the successful deployment and use of ITS technology. As congestion on roadways increases in the region, the ease of intermodal transfers will attract commuters to transit options. Freight operations will be streamlined as goods will be effectively transferred from container ships to freight railroad, and finally to trucks. At Fox we understand the importance of seamless operations in transportation and can implement the technology to make this vision a reality.

#### **Role as Regional Integrator**

As Intelligent Transportation Systems begin to take "center-stage" in the world of transportation, there is a great necessity to incorporate ITS solutions into the decision-making and planning process of transportation agencies. As the Puget Sound Region continues to grow, both financial and physical constraints will limit the expansion of traditional infrastructure, and consequently will necessitate the use of ITS. More importantly, any future traditional infrastructure improvements will need to incorporate ITS to maximize performance. Transportation agencies usually have less experience with ITS solutions as compared to their experience with traditional infrastructure. Bearing in mind this lack of knowledge, Fox Integration considers the following when integrating ITS and planning:

- $\cdot$  Necessity of a strong systems architecture prior to ITS deployment;
- $\cdot$  Coordination with Regional and National Architectures;
- · Importance of stakeholder identification;
- · Accounting for rapid technological advances in the ITS field;
- · Inherent uncertainty of technology;
- · Institutional relationships;
- · Identification of alternative projects;

· Ability to assess projects considering various impacts; and

· Comprehensive cost-benefit analysis.

The Puget Sound Region also presents a unique opportunity considering the seven transit agencies, various DOT's, and two port authorities involved in the region. Sharing of agency resources including data, equipment, and personnel through a successful agency integration plan will derive great benefits for all agencies involved. More importantly, integration of planned and existing ITS activities among the agencies can promote policies vital to the Puget Sound region including:

 $\cdot$  Convenient intermodal connections among all regional transit systems

 $\cdot$  Ease of access to various transportation facilities including airports, seaports, rail sttions and so on

 $\cdot$  Support of transportation management programs and activities determined by our Road Pricing Decision Analysis Tool (area wide pricing, addition of HOT or HOV lanes, changing HOV lanes to HOT lanes, etc.)

 $\cdot$  Redeveloping the road system to support multiple modes – transit, pedestrians, cyclists, automobiles, and trucks  $^{16}$ 

Over time, an integrated ITS network can be developed through using the strategy created by Fox Integration. Our firm's strategy has been successful in every market where we have served as regional integrator and is dependent upon two key features to create unified operations:

**1. Defining Institutional Relationships** – The relationships between the various transit agencies and other stakeholders in the Puget Sound Region need to be clearly defined. The relationships between these agencies will be critical in the implementation of ITS solutions in the region. One example is transit signal priority (TSP). A solid relationship defining responsibilities and hierarchies among transit agencies, DOT's, as well as towns and counties needs to be created for successful installation of this type of ITS project.

**2. Resource and Personnel Integration**— Resource integration goes far beyond the sharing of data between agencies for the purpose of analysis. Agencies must determine protocol for the sharing of specialized equipment that is not required

for full time use. Protocol also must be set regarding the sharing of real-time information including feeds from video cameras, road usage statistics from loop detectors, as well as access to radio frequencies used by emergency services. Finally, personnel from agencies must work together to solve problems, in particular in emergency situations that necessitate the immediate response of several agencies. Fox Integration suggests creating a new center in which emergency dispatch, transit-management, and DOT offices could be located – fostering trust and cooperation between agencies. Close connections with information service providers would also be maintained from this center ensuring that all transportation leaders and authorities would have access to the same high-quality data to better serve their customers.

Fox will identify agencies required for cooperation in the deployment, management, and maintenance of ITS projects as funding for the projects is provided. Drawing on our expertise and experience, we will act as catalysts and impartial mediators among sets of agencies that must work together to fund, build, and operate ITS components in the Puget Sound region. Our presence will provide an advantageous asset to the region because we will advocate and implement ITS proactively.

## Testimonial

As evidence of the need for regional integration in Seattle, a recent op-ed by one of the region's notorious traffic reporters appeared in The Seattle Traveler. The column is reproduced in its entirety:

"Traffic Reporters: Hear for Help -Who should lead Seattle's transportation reforms? An agency who will remember us!"

Ten years in London as traffic reporter for BBC Radio and one thinks that he's seen it all. And then he moves to Seattle. "Like retirement!" he thinks. What's the worse that could happen to a traffic reporter in the pristine Pacific Northwest? A cycling rally obstructing the parking lot entrance at the organic market or having to advise hybrid cars which fueling stations were low on CNG? Broadcasting emergency bulletins that a jogging path has a sinkhole? A queue at the coffee shop? The images on television that I had seen of the Puget Sound made me believe that I had found a traffic reporter's utopia. And then I arrived.

Rather, I didn't arrive, not right away at least. My plane landed, I mastered left-handed driving on the airport service road, and proceeded to crawl along Interstate 5 at a snail's pace. Seattle rush hour- not quite what I imagined. Turning on Interstate 405 a good while later, to my surprise I find more congestion! Having had some quality time alone in my car without any idea what was going on, I looked over the map that came with the car and decided to be clever and take secondary roads to my new home in Bellevue. Construction diversions pushed me past the map's perimeter and then all hope was lost. I was too intimidated to even attempt the in-car navigation system. I was alone, no idea where I was or how to get to my destination, or where to turn to for advice for what to do. Welcome to the Pacific Northwest. Why didn't I tune the radio to the traffic report- well I realized that any city that had to import a British traffic reporter just for his accent didn't have the information that would attract listeners otherwise.

I have now been reporting traffic every rush hour on WPUG with the memory of my first day in Seattle on my mind. And despite my best efforts, and the efforts of all my colleagues, travelers still get completely lost or lose hours in delays. We just don't have the information that they need or the cooperation from the agencies that do. The problem of keeping track of 7 local transit agencies, highways managed by 2 different state departments, and incident teams from 4 counties and 70 different municipalities and authorities is compounded by not having a regional transportation leadership team committed to working closely with existing information service providers.

There's been a lot of talk about the Puget Sound Regional ITS Architecture Plan, and how new technologies and fresh operating strategies will ease the plight of travelers. Many of the proposed technologies I have seen in London in various forms- integrated fare collection, regional traffic control, and ideas about road pricing and revenue generation. All these ideas are brilliant, and better ways of sharing information and dealing with incidents centrally may be quite practical, but how is this new information going to get passed on to travelers? Are the roles of Information Service Providers, like lowly traffic reporters, being given enough credence in the plans for our region? Will a dedicated leadership team emerge that will be committed not only to serving travelers directly but also to interfacing with others who provide travelers' information? Although we traffic reporters are virtually Hollywood superstars, we are transportation professionals, and we urge for the selection of a transportation leadership that will serve as a regional integrator- someone who will work with us and let us share our own experiences in the process.

The IBI Group has assembled great ideas for solving transportation problems and their vision for the future is rosier than a treacle tart. My colleagues and I can be a part of the solution, but an organization that can implement IBI's plan and remember our role is needed. Planners forget that travelers aren't going to embrace every new technology immediately and will continue to trust what they know. Systems like 511 will take years to catch on, if they ever do, and private ISPs have not proven themselves on the market. Web-based regional ISPs, like Smart Trek, have potential for changing ways travelers plan trips, but once a journey has begun what options do most travelers have besides the radio? By keeping us in the vision, at the forefront of public interface, we have the ability to serve as the means by which the public will embrace the planners' vision.

The future looks exciting, and although wireless technology and fiber optics and digitals tidbits can do fantastic things, an agency that can implement these won't succeed without interfacing with existing information service providers. Implementing these plans will take time, and how is information going to be relayed during years of changes and construction? As the population grows older and less able to keep up with the newest technologies the union of fresh data and tested distribution channels will become more important. Leadership is needed that will ease our transition out of our region's current state and ensure that information distribution does get accomplished as part of the master plan before budgets get cut or unforeseen difficulties arise.

Each time I am slowed by traffic while in my car I think back to my first experience traveling in Seattle. I realize that there is so much potential for improving our situation if traffic reporters and information service providers were just kept in the loop. Seattle has the demand, has the vision, and has the tools to make real system improvements happen. We need a leading organization to integrate these tools in such a way that information can be gathered and distributed to travelers through media channels at the regional level. And those channels need traffic reporters who don't speak gibberish about lorries in roundabouts.

#### Conclusions

The Puget Sound Region's myriad public agencies have not proven the ability to implement the Destination 2030 vision on their own. Fox Integration recognizes that the PSRC's goals could be better achieved through the Fox Focus Areas: Flexibility, Overarching consistency, Congestion pricing, Understanding our customers, and a Seamless transportation system. These Focus Areas are all possible with the leadership of your Regional Integrator. The lack of an integrator for Regional ITS Architecture in the PSR has resulted in powerful agencies overlooking the potential of initiatives with ports and traditional ISPs.

Fox Integration has the capacity to approach the project of Regional Integrator from a FO-CUSed perspective. We have the analytical tools and research to optimize implementation goals. We will work hard to not only strengthen existing relationships, but also to build new links. And, finally, we will integrate technology, systems, and institutions to meet regional transportation system goals

#### References

<sup>1</sup> Census.

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<sup>5</sup> Puget Sound Regional Council, ITS Integration Strategy. 2001

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<sup>7</sup> Puget Sound Regional Council, *Destination 2030*. 2001

<sup>8</sup> Ensor, Jeffrey. "Road Pricing Decision Analysis Tool." 2005

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<sup>10</sup> Department of Transportation, "FWHA Rule on ITS Architecture and Standards", 2001

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<sup>15</sup> Horan, Thomas. "Integrating the End User into Infrastructure Systems: A Customer Centric Approach to Design and Function of Intelligent Transportation Systems." 2001

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