Rural ITS
What’s next?
How do we get there?
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What’s next? How do we get there?

It is certainly an honor and a privilege speaking with you this morning.

I would like to take a little time to reflect on the complexity of answering these two deceptively simple questions about rural ITS from an admittedly Washington state perspective:
• What’s next? and
• How do we get there?

When I started thinking about this presentation I marveled a bit about what we have accomplished with ITS, and particularly rural ITS, however, I questioned if we really had a good understanding of where we needed to be headed.

My answer was a resounding yes and no.

Thinking about how far we have come I am reminded of attending the equivalent of this NRITS conference in Keystone, CO back in Feb 1993 and what we discussed there:
At that conference we were trying to:
• Understand the technologies of the time, and
• Understand, and perhaps dream a bit, of the potential that the future might hold

That was about the same time that WSDOT started seriously looking at deploying rural ITS. Those early days set the tone for what we have done to date.

Looking at traffic operations and traveler information today I can say we have come a long way in 16 yrs. And I think that one of the amazing things is realizing how much of what we have achieved was not talked about or even imagined in Keystone.

But for me probably the single biggest achievement we have made in the 16 years is acknowledging that rural ITS is now a given, its value and necessity is no longer questioned

However, looking forward, figuring out “what’s next”, we have significant issues facing us:
• What should be the focus of rural ITS?
• How should it fit with everything else we and others are doing? and
• How will it be funded?
To help me understand these issues I first look at what we are doing in Washington State:

- We have a substantial statewide inventory of roadside ITS and communications infrastructure which covers our entire state road network.
- We have a huge web presence with a statewide scope including substantial rural coverage.
- We have a 511 phone system with true statewide coverage.
- And we have committed to innovations in operations including Active Traffic Management (ATM), Variable Speed Limits systems (VSL), and High Occupancy Toll Lanes (HOT lanes) and to innovations in traveler information including subscribable email alerts, blogging, and a presence on flicker, twitter & facebook.

- More specifically we will have our ten millionth caller to 511 before the end of this year, we routinely host millions page of views a day on the web, and we have thousands of followers on Twitter.

- Specific to rural operations we have 8 traffic operations centers across the state, 4 which are rural focused, we have two permanent operational rural VSL systems and we are now looking at the design of a rural ATM system.

As satisfying as it is to look at what has been accomplished it is far more important to focus on what still needs to be done and how to get there.

And I think, despite the advances we have made, moving forward is more critical than ever before, but more difficult with every successful step.

The difficulty comes because:

- ITS is no longer the cool new thing, it is just one more thing competing with everything else
- Money is tight everywhere and everything needs to show a benefit which can still be difficult in the traditional sense for rural ITS
- And in the rural areas we are seeing a need to move from easy deployments to more complex and costly integrated systems which require difficult decisions.

I would argue that rural ITS to date has been mostly, to put it roughly, the deployment of stuff aimed at meeting specific or localized need.

And although I don’t think this approach will soon be replaced it is not really adequate to move rural ITS forward in a meaningful way.

The advancements in rural ITS will happen when we look beyond the placement of stuff here and there and start to understand that all ITS, rural and urban, needs to be driven by a strategic vision which defines how everything fits and
works together and which is additionally defined by performance and service objectives.

Several months ago I had one of those ah ha moments. Today it seems a bit obvious, but at the time it was an eye opener for me.

We were looking at ways we could provide broader coverage of our real-time congestion and travel time information particularly on rural routes.

Right now we have some roads that we know a great deal about what is happening on them (which are predominately urban), we have some roads we know some about, and we have a lot of roads, mostly rural, that from a real-time perspective, we don’t know a lot.

So we were looking at how to close these gaps and provide more data collection so we could provide more information to the public and for operations. This look covered several bases:

• We could do it in house, which is our traditional approach: Which it to buy, install, integrate, and operate & maintain more detection equipment and supporting systems
• We could contract out the equipment and just buy the data and integrate it into our systems
• Or we could have someone simply provide us the end product: Congestion and travel time maps fully integrated into what we already do.

Each of these approaches came with the associated costs, benefits, and pitfalls which led to a lot of discussion.

So then came my little ah ha:
Listening to the discussion I realized we were not talking about expanding coverage, what we were debating was the importance of rural operations and traveler information within the agency and how that fit within the vision of what the agency was fundamentally about.

Admittedly this is not an earth shaker of an ah ha. But it was incredibly important, because at that moment I realized we were having the wrong discussion.

Before we talked about what we needed to do and how we were going to do it we needed to answer a simple questions: Why?

And that WHY is about knowing our statewide objectives for ITS.

To get to the WHY two fundamental questions needed to be answered:

• “What role does operations and traveler information play in the agency” and
• “How will it be supported?”
On the surface these didn’t sound too terribly difficult to get to, but they were, because compared to 16 years ago, when we started sticking stuff on our rural roads, the world had changed.

ITS we use to be the only game in town, and we didn’t appreciate how easy that made things for us.

So we need to align with the new realities. We now have:

- A long list of local and regional jurisdictions which are aggressively pursuing ITS, sometimes they want to work with us, sometimes not.
- We are bordered by states, and a province, which have or will have very diverse 511 systems and web traveler information systems, none of which talk to each.
- We have multiple local agency TMCs and are surrounded by states, and a province that all have TMCs, which, for the most part, do not share data.
- We are looking at the development of a federal ITS Strategic Plan, the Intellidrive program, and possible federal mandates, all of which may or may not get us to where we think we want to go. As a minimum we struggle to figure out how these will fit together or how they may impact us.
- We have a growing private sector presence providing traveler information which is not always in concert with what we want to achieve but often depends on the data and information that we provide.
- We have a public that has a growing intolerance for traveler information systems and operational activities which are not coordinated, seamless, consistent, and integrated across jurisdictional boundaries.
- And we don’t have a lot of money.

So to get to that WHY in a world growing more complex by the day and to understand the role of operations and traveler information at WSDOT, we need to:

- Understand the changing expectations of our customers,
- We need to understand the needs and objectives of other transportation agencies within the state and regionally
- We need to understand how our needs link to national efforts.
- We need to understand how WSDOT’s efforts should fit within the growing and quickly evolving marketplace of travel information
- We need to understand the impacts and opportunities of the growth of private data collection efforts.
- And finally we need to define our own performance and service delivery expectations for ITS operations and traveler information.

And this is why getting to the WHY is hard, these are complex issues that are collectively difficult to understand.
But understanding is critical: We are at a point were we need to move beyond rural ITS deployments that simply meet localized or isolated system needs.

We need to have a blue print on where we want to be and a clear vision on how that fits within an overall framework of national, regional, state, and local objectives for the next 10-20 years.

So, I think I do know what is next. What is less clear is how to get there.

Sixteen years from now, in 2025, when I am attending the NRITS conference and reflecting back on what we talked about here at this conference and what changes I have seen in 16 years:

- I hope that I will be able to marvel at my ability as a traveler to get consistent, accurate, and reliable travel information regardless of time of day, regardless of my location and destination, regardless of what modes of travel I am considering, and regardless of the platform I am using to access the information.
- From an operations perspective I hope to be able to take for granted that I have complete real-time operational awareness of what is happening in BC, Oregon, Idaho, California, Montana, and in the local jurisdictions statewide at all of my TMCs and understand the impact such awareness will have on my operations.
- I hope such progress will be replicated though out the country.
- And I hope to marvel at what we have been able to achieve that we didn’t even realize was coming today.

Thank you