

“Bringing maintenance
and operations together in
a rural setting”

Rural ITS Conference 2012

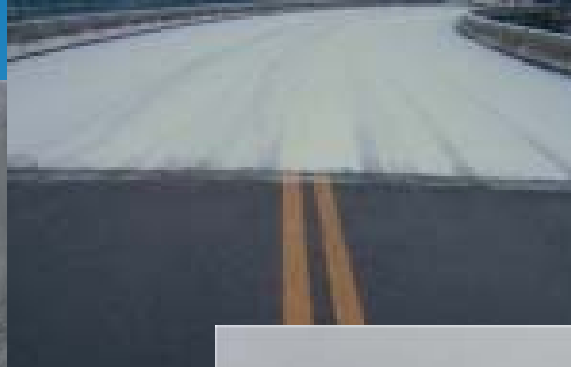
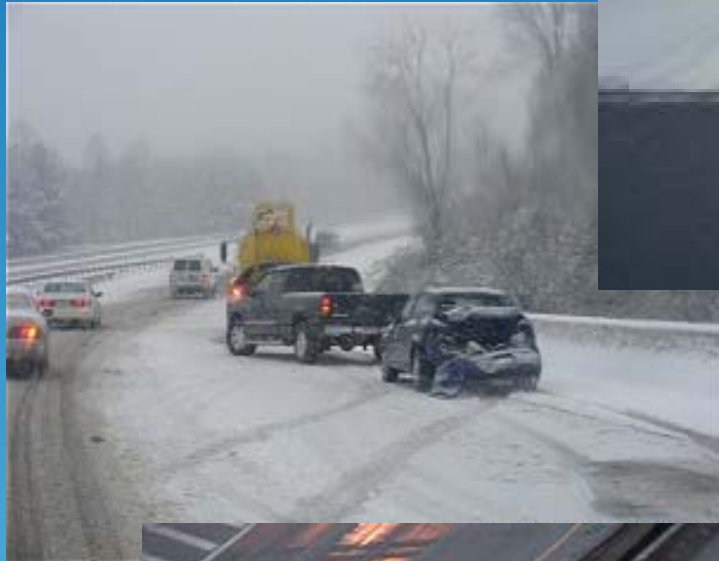
Presented by John Hansen and contributions by Keith
Trimels 2 ITS-Help LLC

2 ITS-Help, LLC

7292 Sapphire Pointe BL, Castle Rock, CO 80108

jhansen@2ITSHelp.com 719.330.4402

QUESTION: Is it possible to predict when and where an accident will occur?



Presentation:

- Operations and Maintenance - coming together
- RWIS: updating application, new customers, influencers and expanded needs
- Influences that effect RWIS/Rural ITS expansion
- Funding “follow the money”
- Shareholders and customer needs from Rural ITS
- Managing and reporting-Example
- Answer the question; “predicting accidents”
- Conclusion

The Current State of RWIS Application

- Upgrade of RPU
- Non-invasive devices
- Addition of 360 degree HD cameras
- "End of life" replacements
- "Specialized RWIS Deployments"
- Localized detection and command/control
- Program expansion
- Portable Applications
- Interoperability with ITS Systems

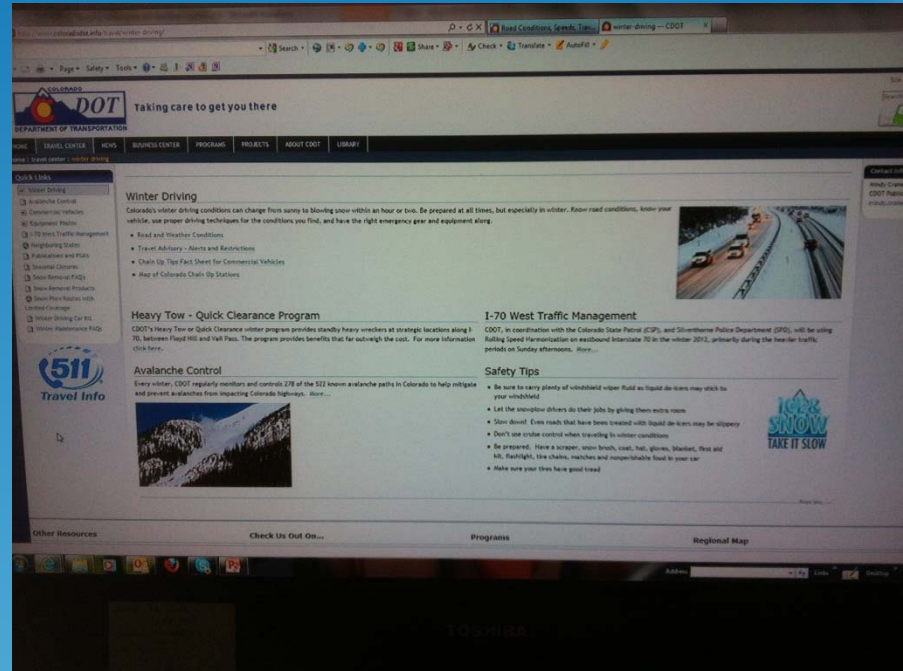


Operations and Maintenance: Defining a new partnership around RWIS and Rural ITS



Operations: Bringing us together

- Operations: Manage deployment, integration, interoperability
- Operations: ITS Application oversight
- Operations: Deployment and system maintenance
- Operations: Funding facilitator
- Operations: Understanding new ITS applications that were hosed elsewhere
- Operations: Responsible in part for finding money
- Operations: Responsible for educating their internal staff
- Operations Responsible to their new customers



Maintenance: Shift in ownership

- Maintenance: Original RWIS application owner
- Maintenance: Original system purchaser
- Maintenance: Now; Main customer for RWIS (operations)
- Maintenance: Educate Operations on the application
- Maintenance: Work with Operations to expand system and application (RWIS)
- Maintenance: Understand how operations will use their information
- Maintenance: Partner with operations



RWIS How each one uses data:

Operations:

- Camera for verification
- Camera for Incident Management
- Pavement Condition for Traction
- Traction as impute into Traffic Control Devices
- Pavement Conditions/reporting
- Influence Trip Time (travel time)
- General Traveler Information(Example; 511)
- Overall ITS System

Maintenance:

- Traditional RWIS application
- Response to winter event
- Maintenance Decision Support
- Bridge Spray System (trigger)
- CLARUS impute
- Rural Transportation Systems
- Other Weather Systems

Influences that effect Rural ITS expansion

- Communication and power issues drive expense of deployment up
- Competition for dollars from other needs, lack of budgets, funding
- Cooperative effort from larger group that can benefit from an expanded application/user effort
- Limited number of shareholders vs. other options for that funding
- Island system vs. integrated approach
- Not knowing your customers and their needs



Follow the money-Funding

- Funding criteria is changing and criteria needs to benefit larger group
- Regional approach vs. single entity or application approach
- Simplified and focused response vs. complex and all inclusive
- Technology issues of MAP21
- Cooperation with funding source groups (COGs)
- Support and maintenance after deployment (costs)
- Think big



Example: Responding to a rural highway incident



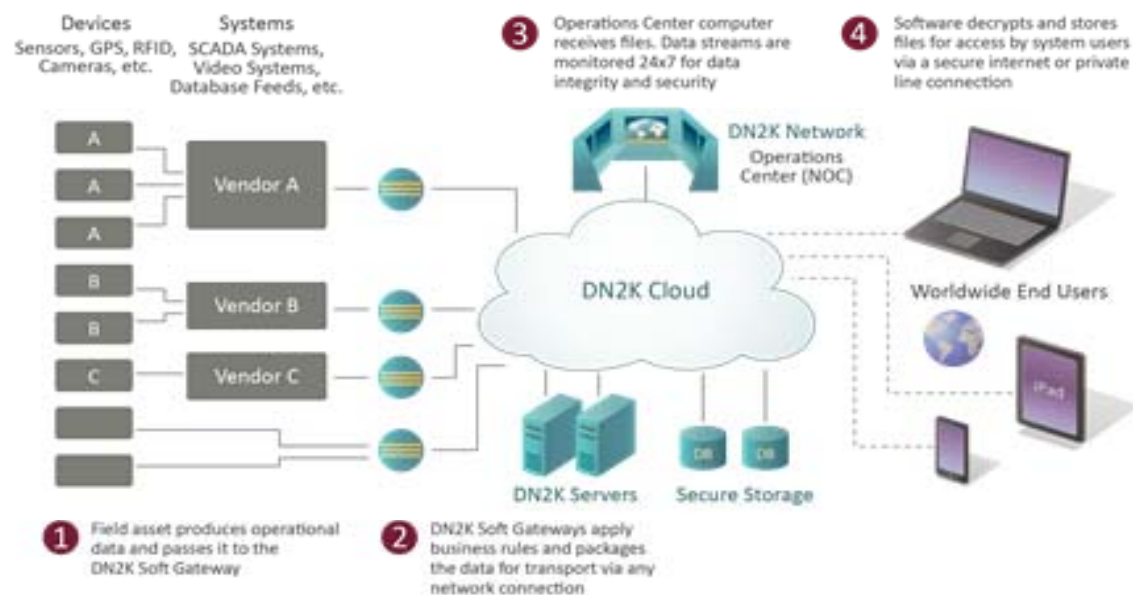
Shareholders

- Emergency responders/first responders
- Local/state law enforcement
- Rural hospitals
- Transportation and Emergency Management
- Homeland Security (in some cases)
- Military, Indian and other jurisdictions if incident is in or adjacent to their areas.
- Traveling Public
- Media (radio, TV, paper, etc.)
- On-call general contractors as response teams
- Rural transit
- Other response teams as identified by need



Uniting Island Systems for all-purpose Command and Control

DN2K Technology Advantage



Question: Accident prediction?

DN2K

Map View | Trail View | Team View | Alarm View | Admin View

Management: Transportation systems and solutions

Transportation System

- COOT
- Daugherty County
- City of Castle Rock
- Traffic Signal
- Traffic Data Sensor
- Overhead Sign
- Construction Zone
- Camera
- Weather Station
- Hospital
- School
- Fire Station

Legend

- Firetruck
- Police Car
- School
- Hospital
- Firehouse

Clear Tuesday, August 21, 2012
High 78° Low 58°
5:15 PM
Temperature 60°F
Forecast 78°F

Weather Graph

Legend

- Traffic Signal
- Traffic data sensor
- Camera
- Construction Zone
- Weather Station
- Overhead Sign

Message

Volume on Henderson Parkway is near Dangerous	Dangerous	■	This is a warning condition that traffic needs to watch.
Two stop lights on Santa Fe Road failed completely	Dangerous	■	This is a warning condition that traffic needs to watch.
Volume on Henderson Blvd is backing up more and worse	Dangerous	▲	This is a warning condition that traffic needs to watch.
Traffic volume on Santa Fe Road is near Dangerous	Dangerous	■	Traffic volume has reached Dangerous levels on Santa Fe and side streets

Questions?

