



Open Data under the *Clarus* Initiative

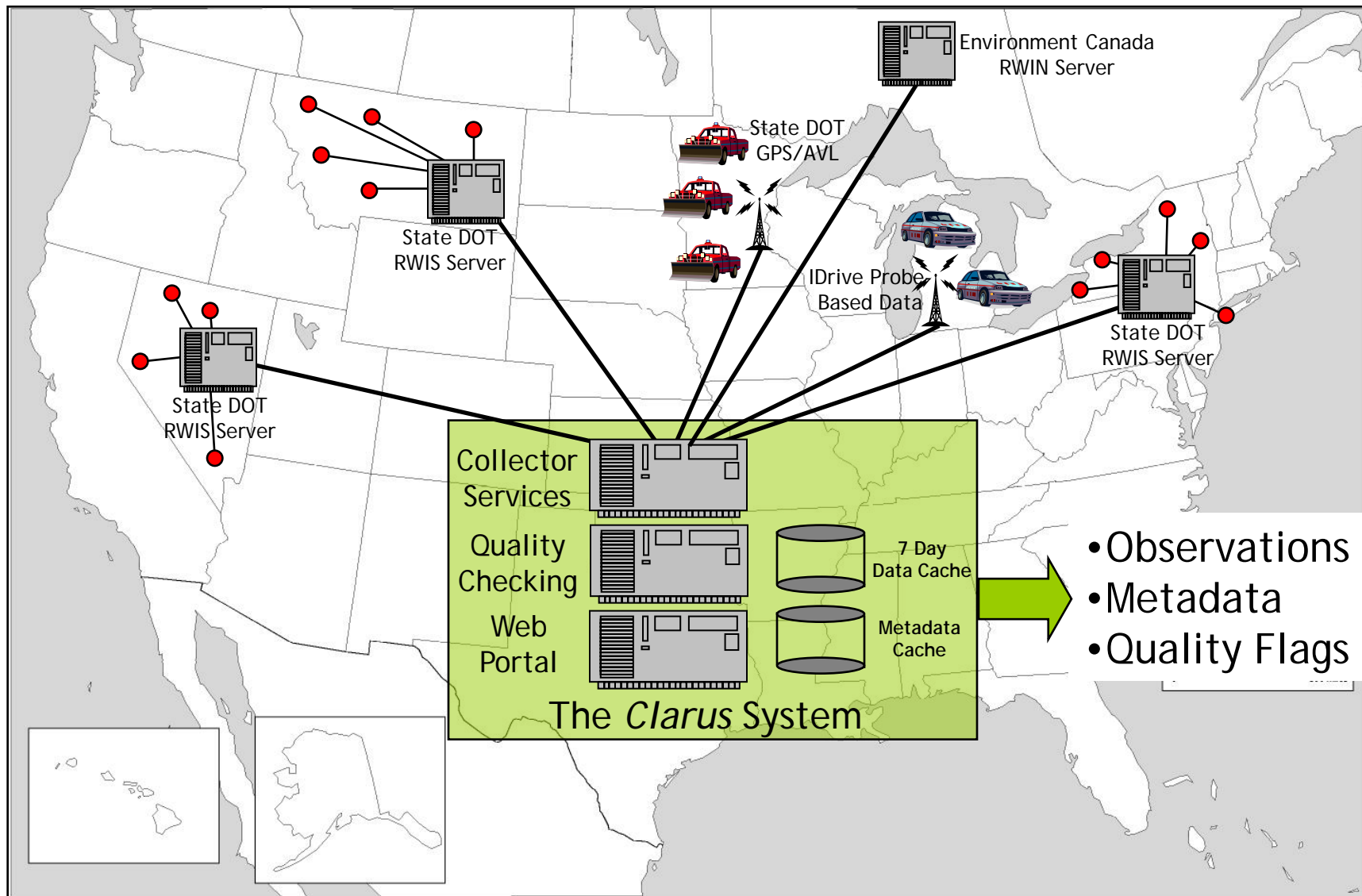
Mobility Program Workshop
Arlington, Virginia
December 1, 2010

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U.S. DOT / Federal Highway Administration

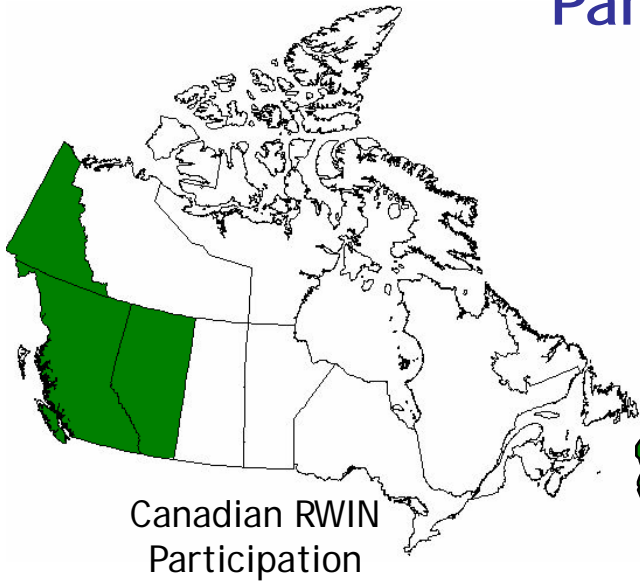
Outline

- **Clarus overview and open data**
 - ◆ Focus on data feeds into and out of the *Clarus System*
- **Liability concerns**

Clarus Overview and Open Data

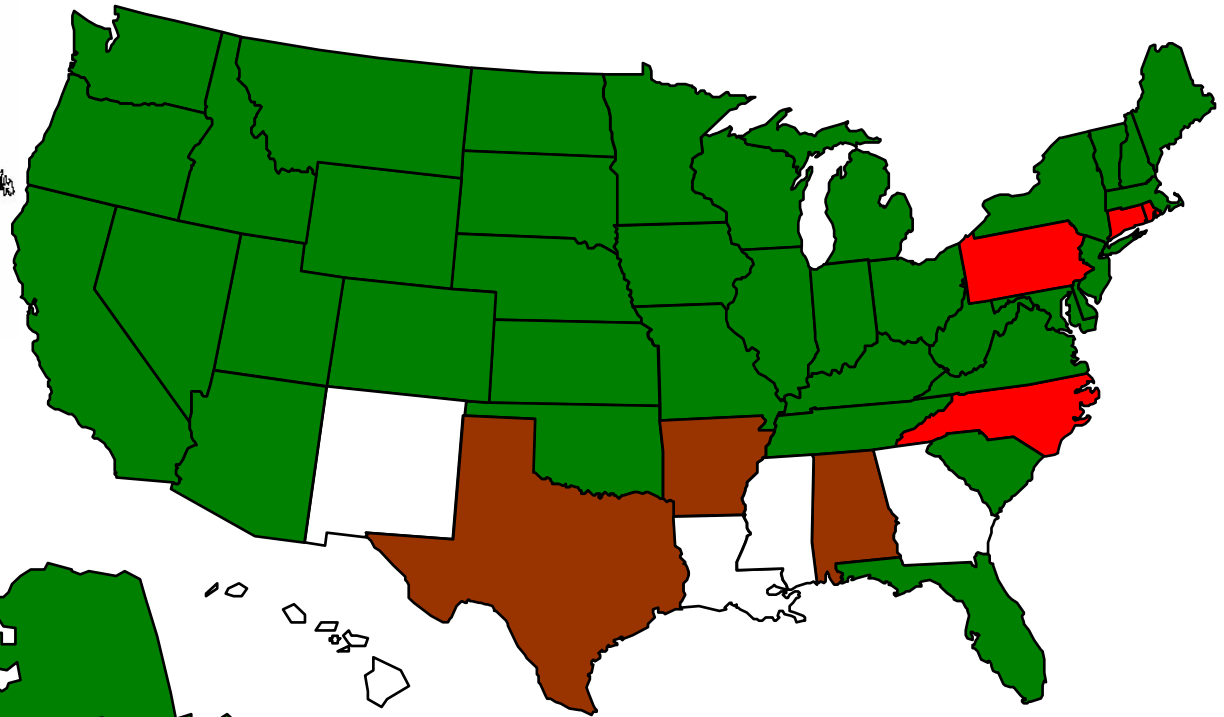


Participation Status for *Clarus* as of October 15, 2010



Local DOT Participation

- City of Indianapolis, IN
- McHenry County, IL
- City of Oklahoma City, OK
- Kansas Turnpike Authority
- NY State Thruway
- City of Denver, CO
- Washington, DC
- City of Overland Park, KS



Clarus Connection Status

- | | |
|---|---|
| <p>■ Connected
(38 States, 4 Locals,
3 Provinces)</p> | <p>■ Pending
(3 States, 3 Locals)</p> |
| | <p>■ Considering
(4 States)</p> |

Sensor & Station Count

2,161 Sensor Stations (ESS)
48,109 Individual Sensors

Data Feeds into/out of *Clarus*

- **Data feeds into *Clarus***
 - ◆ We'll ingest the data in any format we can get it
 - ◆ Prefer NTCIP 1204
- **Includes full metadata for each sensor station**
 - ◆ As important as the data itself
- **We do not require data sharing agreements – but expect to when moved to NOAA**
 - ◆ Protects provider – everyone on same page about use of data
 - ◆ Data provider gets to limit who gets to their data for use
- **Data feeds out of *Clarus***
 - ◆ Accessible via the *Clarus* System – www.clarus-system.com
 - ◆ Website includes disclaimer
- **Data outputs available in 3 formats: XML, CSV, & CMML**
 - ◆ In processing of working with mapping format – KML
 - ◆ *Clarus* data provided in support of final end products

Liability Issues

- Examined RWIS-related liability concerns and identified recommended strategies for addressing policy and institutional issues
- Work conducted by the Natl. Conference of State Legislators (NCSL)

Methodology:

- Conducted legal review to identify law/precedence on liability exposure
- Reviewed relevant statutes and legal statements for all 50 States and the District of Columbia
- Surveyed experts

Primary Institutional/Policy Issues:

1. Dissemination of RWIS information directly to traveling public
2. Providing RWIS information indirectly, through third party such as *Clarus*
3. A DOT's duty to respond to RWIS notifications of hazards
4. Liability for not using RWIS when expected or indicated.

Key Takeaways

#1: RWIS is a largely unexplored question of law — which must be conceptualized within complex, state-specific legal contexts.

- Sovereign immunity and exceptions to waivers of immunity
- Limitations on assuming duties of care
- Weather immunity statutes

#2: RWIS is a tool that can help reduce state exposure to liability.

- Helps state DOTs meet traditional legal duties to correct or warn of known, dangerous conditions
- Can provide evidence for a DOT

#3: Over half of the surveyed experts identified no RWIS-related liability concerns.

- 19 of 36 responses, representing 18 State DOT

Report Guidance for RWIS Users

#4: State DOTs and legislators have many strategies to address RWIS-related liability concerns.

- **Data Sharing Strategies:**
 - ◆ Limits on Information Sharing
 - ◆ Online Disclaimers
 - ◆ Agreement with Third Parties
 - ◆ System Optimization
- **DOT Departmental Policies and Regulations**
 - ◆ Public Outreach and Education
 - ◆ Risk Management
 - ◆ Ongoing Allocation of Funds
- **Legislative Strategies**
 - ◆ Legislation Relating to Tort Liability and Immunity
 - ◆ Appropriations

Report

- **Final Report is available on line at:**
 - ◆ At FHWA: <http://www.ops.fhwa.dot.gov/weather/index.asp>
 - ◆ At NCSL: [http://www.ncsl.org/documents/transportation/Weather or Not Full Report R all 04.30.10.pdf](http://www.ncsl.org/documents/transportation/Weather%20or%20Not%20Full%20Report%20R%20all%2004.30.10.pdf)

Q&A