

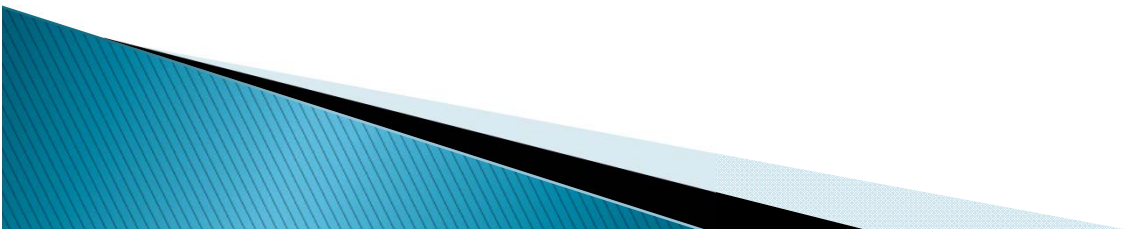


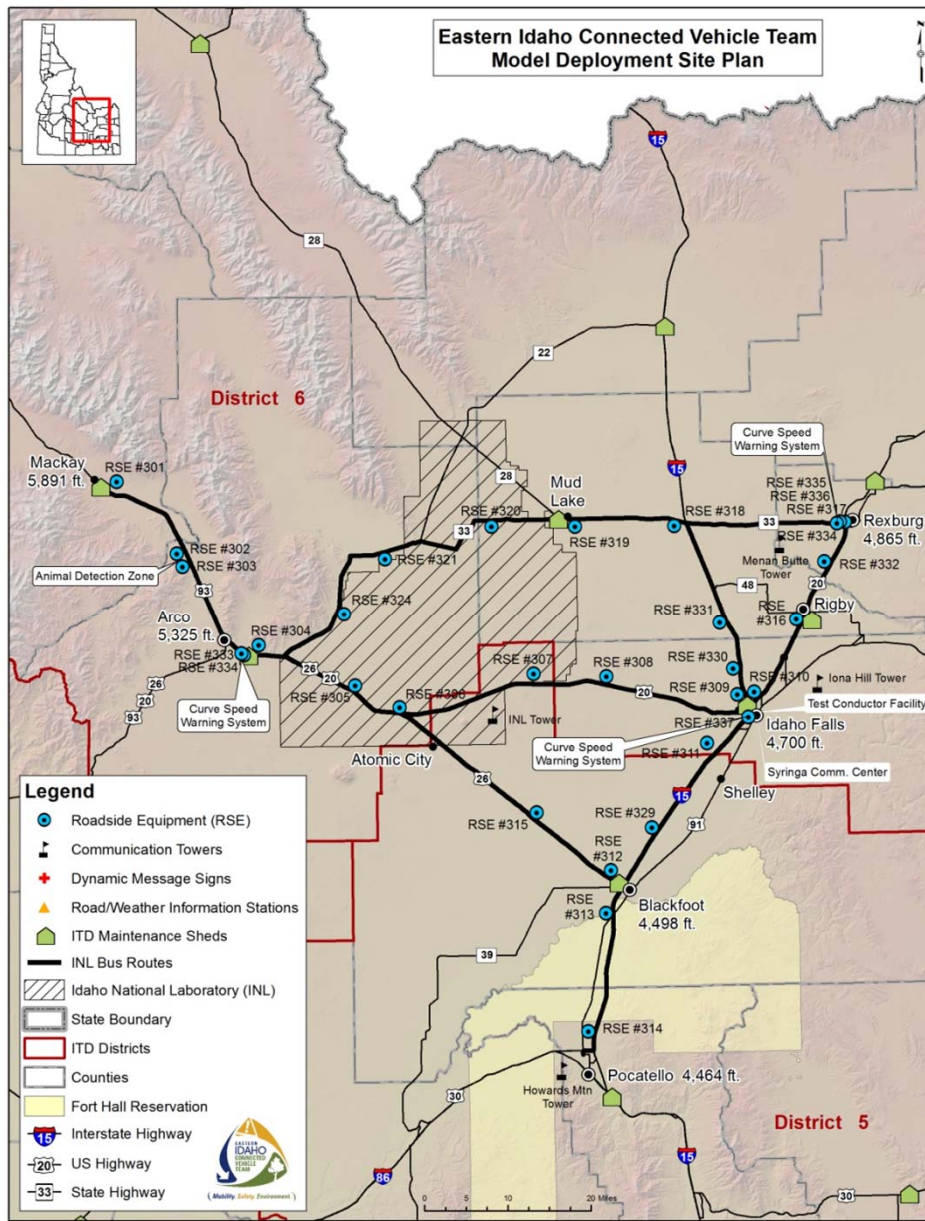
Eastern Idaho Connected Vehicle Project

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Idaho Transportation Department

Questions to Answer

- ▶ How was the project initiated?
- ▶ What are the project goals?
- ▶ How was the project defined?
- ▶ Who are the partners?
- ▶ What are the applications?
- ▶ Funding opportunities?





Commuter Traffic

INL Buses
Van Pools
Private Vehicles

Origins

Mackay
Rexburg
Rigby
Idaho Falls
Blackfoot
Pocatello

INL Employee Travel

7 days per week
Reduced on weekends

INL Transit Commuter Traffic



East Of Atomic City, US 20, MP 288, Elevation 5112 ft Thu Sep 16 07:31:02 2010
West View



Atomic City, US 20, MP 288, Elev. 5112 ft
West View

Thu Dec 30 08:46:01 2010



Puzzle, US-20/26, MP 272, Elev 4,954 ft,
West View

Thu Dec 30 08:47:01 2010





Eastern Idaho Winter Weather snow, ice, limited visibility



Things Can Go Wrong...



Project Initiation

- ▶ Summer 2010: Idaho Transportation Department (ITD) & Idaho National Laboratory (INL) discussed environmental factors affecting safety and mobility:
 - ITD winter maintenance challenges
 - Visibility (year round)
 - INL employee/contractor commuter traffic
 - Volatility of road weather conditions
 - Animal-vehicle collisions
 - Fleet management



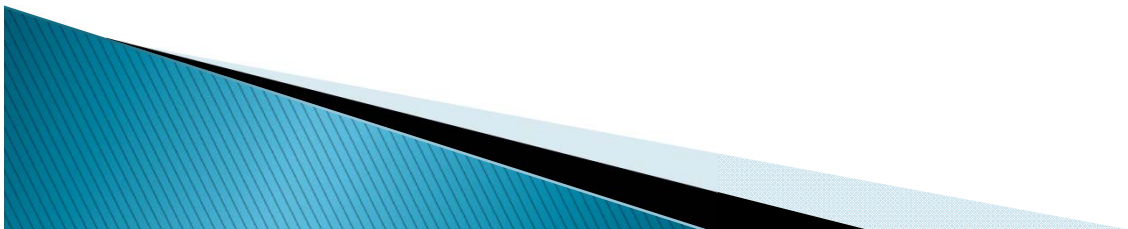
Project Goals: Improved Safety and Mobility

- ▶ Reduce Crash Rates
- ▶ Keep roads safe
- ▶ Manage road closures better
- ▶ Provide better information to INL employees and traveling public
- ▶ Make optimum use of maintenance resources



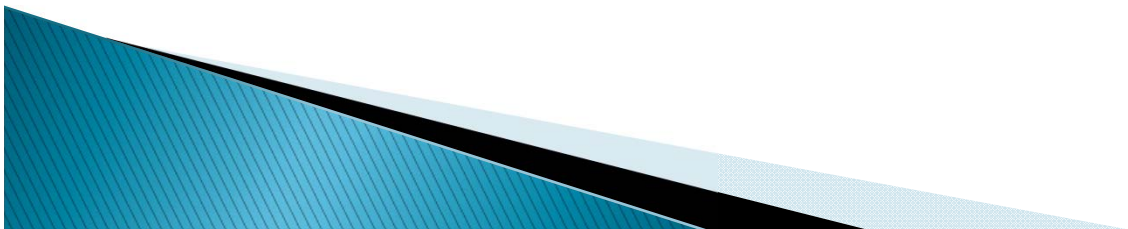
Concept of Operations

- ▶ In November 2010 a Concept of Operations was begun to examine how Connected Vehicle Technology could improve Safety and Mobility
- ▶ Kimley-Horn and Associates led the effort
- ▶ Stakeholders were identified and interviewed
- ▶ Four Technical Memos were prepared
 - Needs Assessment
 - Available Systems and Standards
 - Concept of Operations
 - Functional Requirements



Defining the Project

- ▶ Improved winter maintenance operations; less need to drive roads to observe road conditions.
- ▶ More informed road closure decisions
- ▶ Improved incident response, incident detection and EMS dispatch
- ▶ Improved posting of events into 511 web and phone
- ▶ Improved posting of messages on DMS and HAR
- ▶ Better fleet management—ITD and INL
- ▶ Establish a model for statewide Connected Vehicle deployment

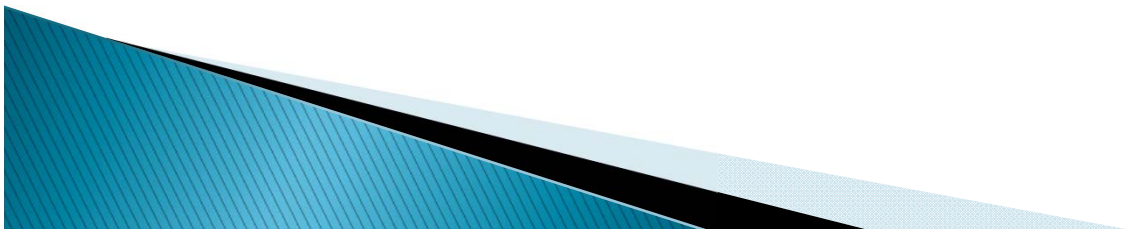


Eastern Idaho Connected Vehicle Team

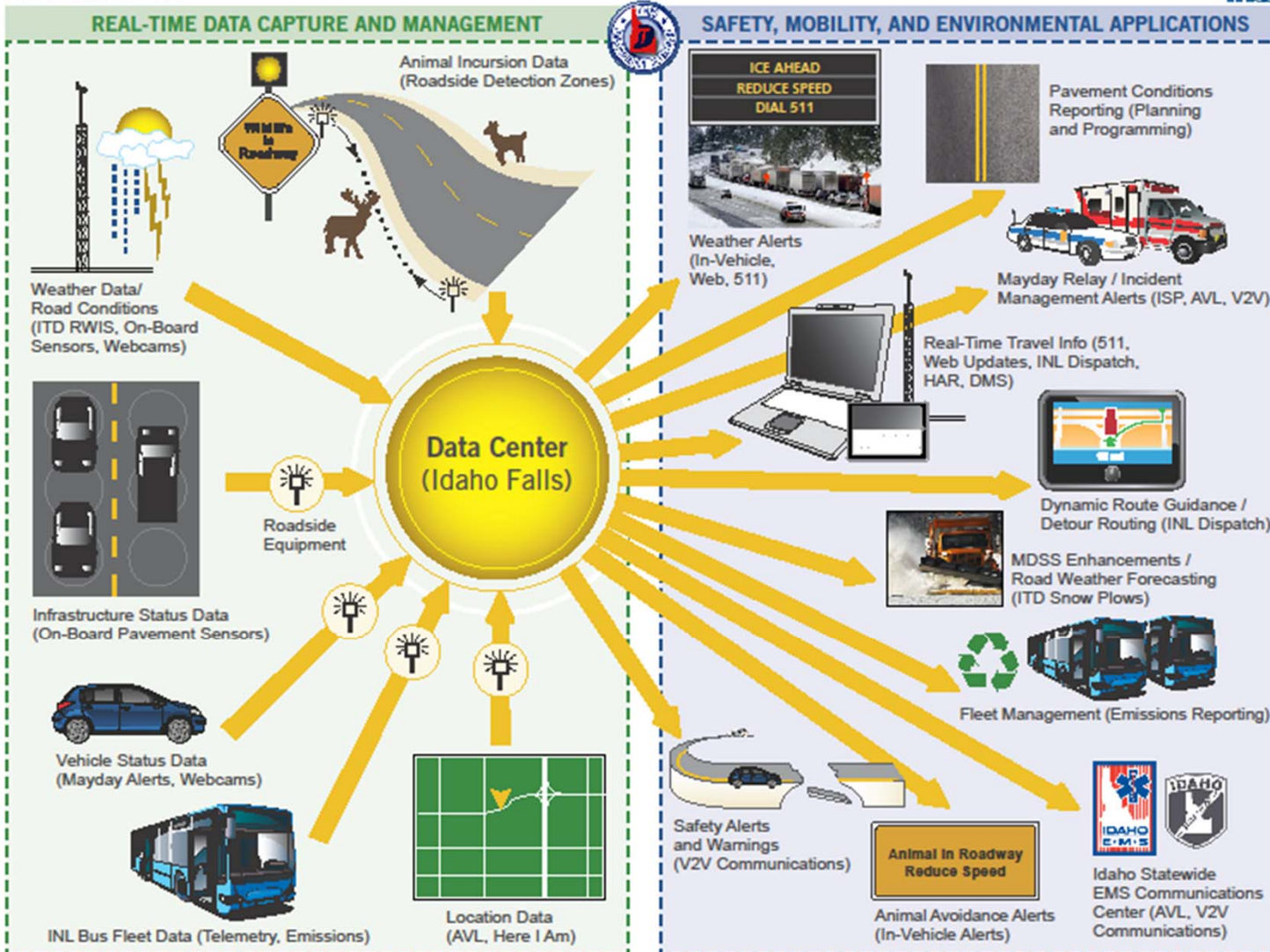
- ▶ Idaho Transportation Department
- ▶ Idaho National Laboratory (INL)
- ▶ Idaho Health & Welfare EMS
- ▶ Idaho State Police
- ▶ Bingham County Sheriff
- ▶ Kimley-Horn Associates
- ▶ Battelle
- ▶ Kapsch TrafficCom
- ▶ Vaisala
- ▶ Meridian Environmental
- ▶ Western Transportation Institute (Montana State University)
- ▶ Castle Rock Consultants
- ▶ Syringa
- ▶ Interest from
 - Commercial vehicle and transit operators
 - cities

Possible Connected Vehicle Applications

- ▶ On-board video snapshots delivered to dispatch centers
- ▶ Fleet management (ITD and INL)
- ▶ Pavement data–thermal mapping of routes
- ▶ Animal avoidance warnings
- ▶ Mayday alert relay
- ▶ Engine performance data transmission (GHG, emissions)
- ▶ Automated and enhanced 511 updating



EASTERN IDAHO CONNECTED VEHICLE CONCEPT OF OPERATIONS



Funding Opportunities

- ▶ USDOT Connected Vehicle Safety Pilot—proposal submitted but rejected
- ▶ FHWA Discretionary Program—proposal not selected
- ▶ TIGER 3 Program—proposal in preparation
- ▶ Upcoming USDOT Regional Demonstration Projects
- ▶ Incremental funding approach, ITD and INL



Questions or Comments?



Thanks for
attending this
session.

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