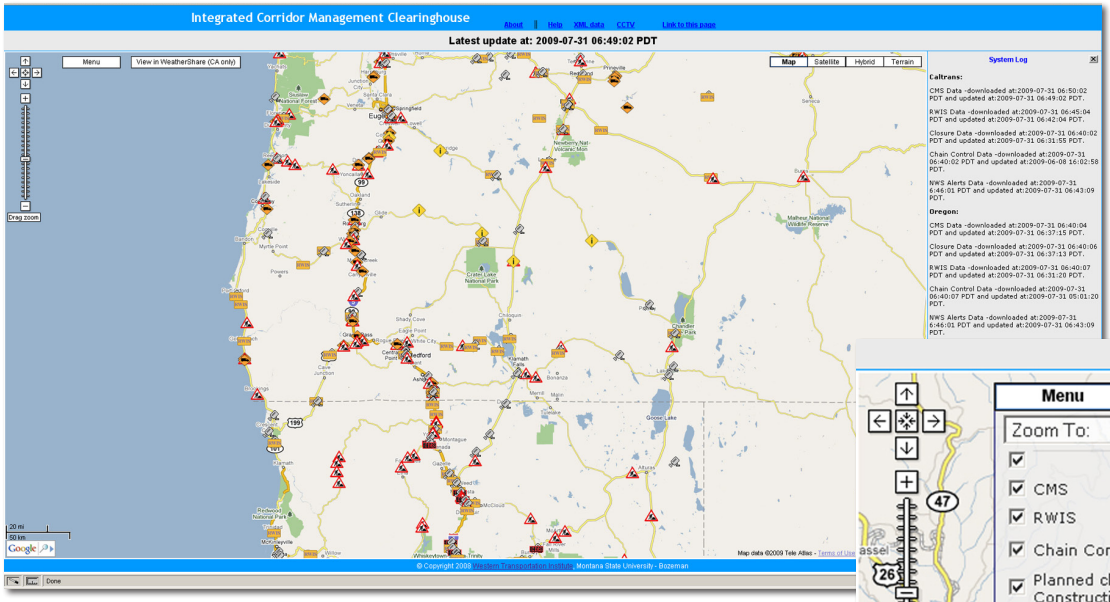
SYSTEMS ENGINEERING DEVELOPMENT AND INTEGRATION PROGRAM

Integrated Corridor Management for Rural Areas

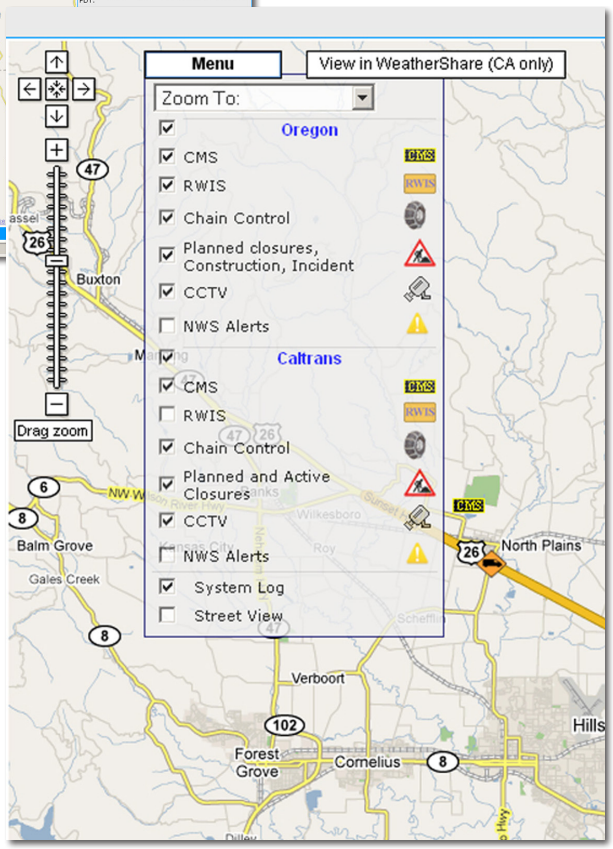
Background

Integrated Corridor Management (ICM) seeks to coordinate individual network operations between parallel facilities/routes to create an interconnected system allowing cross network travel management. To date, the focus of ICM has been solely on urban projects, resulting in a failure to explore the opportunities and advantages such efforts could have in a rural setting. The unique characteristics of rural corridors preclude the widespread application of urban solutions. This is particularly true of the COATS (California and Oregon Advanced Transportation Systems) region of Northern California and Southern Oregon, depicted in Figure 1, where the opportunities for ICM available to urban areas (e.g. signal coordination, mode shifts) are not as readily applicable.



Development

To address this shortcoming, the Western Transportation Institute has developed a data-sharing platform to facilitate the near-real time communication of conditions between agencies. The data-sharing platform is essentially a clearinghouse, into which different partner agencies feed data for sharing with other agencies in the region. The data being fed into the clearinghouse comes from existing databases; agency staff continues to enter informa-



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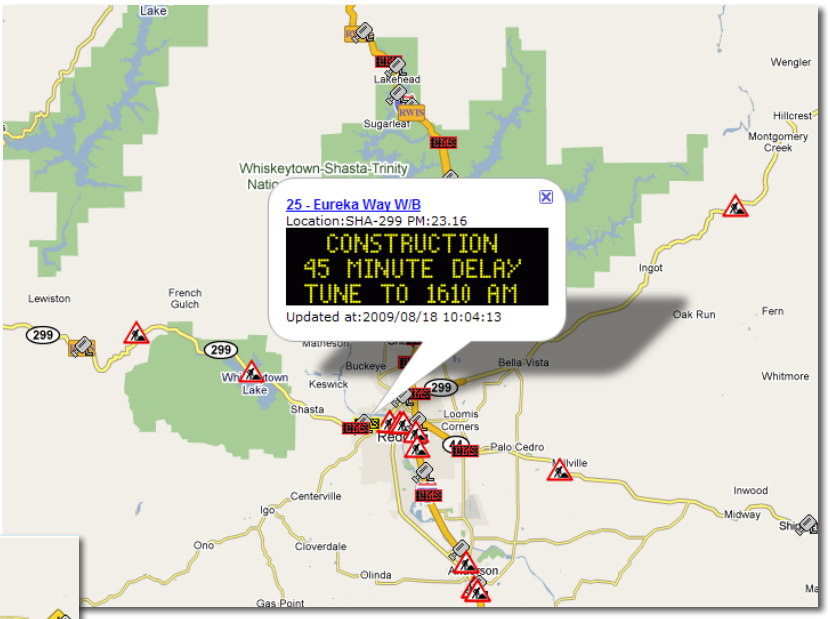
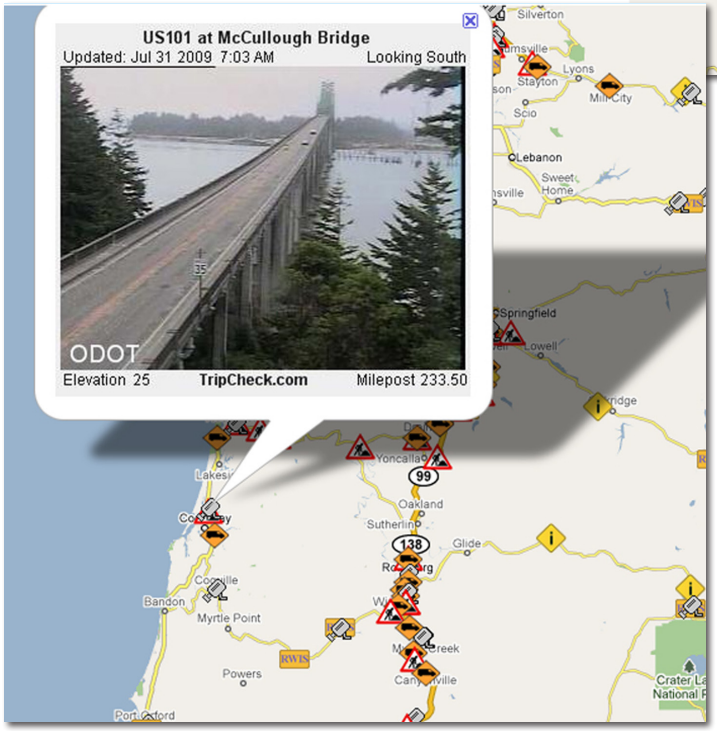
tion into these databases, while the data-sharing platform pulls this data in and disseminates it to other agencies via a web-based interface. In this manner, the clearinghouse facilitates the sharing of data among such agencies in a more expeditious manner than has previously been the case (e.g. one on one telephone communications, fax, etc.). The clearinghouse pulls data in from these databases at a high frequency (depending on the dataset, this frequency may be as often as every five minutes) and reports it to other agencies more quickly than traditional reporting methods.





Anticipated Benefits

The primary benefit of this work is timelier data sharing between agencies. The data-sharing platform serves as a supplemental means by which data is exchanged, with slower traditional approaches (telephone, fax, etc.) still remaining in use. The availability of information to agencies in a timelier manner will allow them to react to changing conditions more quickly and effectively improving operations. In addition, traveler safety and mobility are expected to improve, as the provision of timelier information by agencies to motorists will allow them to travel via the best available routes or stop in a location where amenities are available. Goods movement will also be facilitated in this manner, keeping drivers and trucks moving toward their destination rather than sitting at a closure.

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