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Description: I was lead author on this abstract submitted for presentation at the National Rural Intelligent Transportation Systems (NRITS) conference. It describes a technology project that I worked on as a project manager, UI designer, and tester. Unfortunately, NRITS does not have an online archive of abstracts and agendas prior to 2011.

Interagency Data-Sharing in a Regional ITS Deployment

Regional planning and interagency cooperation are cornerstones of any successful ITS (Intelligent Transportation Systems) deployment. Highways and roads typically cross dozens of jurisdictional boundaries, from city limits to national borders. Travelers and agency personnel must be able to access regional updates that may affect their travel plans or threaten public safety. In case of traffic-related events (e.g. hazardous materials spills) that require a coordinated government response, effective interagency communication is crucial. Data-sharing among agencies is a critical step in the deployment of regional traveler information systems.

Castle Rock is working with Client A to develop a data-sharing network that will help local governments maximize their resources for efficient and effective delivery of traveler information. Client A Organization is a voluntary association comprising six counties and nearly two dozen cities. Sprawling urban areas, such as the city of “Metropolis”, are represented along with rural towns such as “Mayberry”. The objective of the XYZ project is to enable the sharing of real-time traffic, transit, and safety information among a network of government agency-owned computers throughout the region.

Castle Rock is approaching this complex problem by developing a series of gateways—called Awesome Network—that will facilitate information exchange between different “nodes” (computers) within the network. Nodes will include emergency dispatch systems, transit tracking systems, parking managers, and other data sources that are relevant to traveler information. Data exchanges will be subscription-based and compliant with national ITS standards. Since each Awesome Network operator may utilize a different data format, a series of custom data converters will be built to ensure compatibility. The Awesome Network interfaces will be deployed using Castle Rock’s Signature platform and associated Signature software modules, which have been successfully deployed in several other states.

It is envisioned that when Project XYZ is complete, authorized personnel will have access to real-time incident data from multiple agencies throughout the “Metropolis” region. Data will be imported from each Awesome Network Node into a centralized event database and subsequently disseminated to the public through the various Signature modules. For agency personnel, a web-based Regional Display feature will allow streamlined viewing and entry of traveler information across multiple cities and counties.

Project XYZ will enable large governments as well as smaller, more rural agencies to access data that they might not be able to acquire on their own. Having an efficient medium of data exchange will help to maximize the effectiveness of Client A’s regional ITS deployment, thus ensuring that the most reliable and up-to-date information is delivered to the public.

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