

## Roadway Accident Management Systems

### Presenter

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Effective roadway safety initiatives require fast and easy access to up-to-date, geographically referenced accident data and supporting tools. Many times, the accident data collection process is cumbersome, with substantial manual effort necessary to enter and location code the information. Accident data may be stored in multiple databases instead of one central repository further limiting access. Once the user gains access to the data, automated tools are limited, if not non-existent.

ESRI recently completed the development of a complete web-based accident management system for New York State. The project was a multi-agency initiative involving the New York State Department of Motor Vehicles (NYSDMV), Department of Transportation (NYSDOT) and the Office of Cyber Security and Critical Infrastructure Coordination (NYS CSCIC). Five (5) web-based applications were developed that begin with location coding the field-generated accident reports and end in conducting high-end accident analysis. Using these tools, staff can engage in detailed studies identifying locations with high levels of accidents and unusual concentrations of specific accident types. Analysis results support key NYS DOT traffic safety business requirements from recommendations on preventative measures and roadway improvements to transportation planning and safety enhancements for pedestrians and bicyclists. Moreover, developing the accident management system as web-based applications provides staff with fast and easy access to accident data reducing the hours associated with more traditional searches and providing automated tools as well.

This presentation will begin with an overview of the web-based accident management system using the NYS project as an example. It will show the user how it can be implemented in any State DOT. The second half will focus on the technical challenges faced in this development effort and continued development opportunities leveraging the latest technological advances in ESRI's software.