

## 2.4.1

### **NJ Turnpike Authority: GIS based Utility Management System**

**Presenter**

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The New Jersey Turnpike Authority (NJTA) embarked on a project to enhance its existing web based GIS by adding functionality to map and manage utility infrastructure. The project included developing a comprehensive utility data model that included provisions for specific utility attributes, quality level of data entered into the system, and other elements necessary to collect, analyze, report, and maintain utility data both above and below ground. Data collection and digital submission standards have been established to aid in submission compliance and consistent field collection methods for both internal staff and external contractors. Web tools have been built to allow NJTA to import collected field data, run validation procedures against inventory data, automate field data calibration with their LRS by adding Route/MP values, as well as the capability to generate utility infrastructure reports. A mobile application was developed and deployed to be used to quality control field data captured by external vendors, and support other inventory and inspection tasks. Technologies employed include Microsoft Silverlight, Esri ArcGIS Server, Microsoft .NET, Microsoft WCF, Windows RT, and Active Directory integration.

**Bio(s):**

Tom is a GIT Department Manager at Michael Baker Jr., Inc and responsible for the overall management, scheduling, resource allocation and technical methodologies employed for successful delivery of products and services within this Department. He has over 24 years of professional experience in the design and maintenance of Geographic Information Systems; development and deployment of relational database systems; software application development, asset inventory collection techniques; and technology training.