Integrating Mobile Resources Into the Homeland Security Enterprise

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The Problem: First Responder Coordination is Poor or Non-Existent

The challenge is disparate:
- Public Agencies
- Geographies
- Communication Networks
- Sensor Networks, and
- Legacy Systems

Dispatcher is “blind” to other agency’s resources and mobile asset status

Government and Industry are requiring cooperation among:
- Homeland Security
- Border Patrol
- First Responders

Requirements for:
- Decreased Response Time
- Reduce Voice Traffic
- Interoperability for Mutual Aid
- Improved Fleet Efficiency
Mobile Resource Management Systems Provides Improved Command and Control

- Visibility Provides
  - Right Resources
  - Right People
  - Right Place
  - Right Time
- Seamless interoperability across geographies and networks
- Reduced voice traffic on radio networks
- Tracking becoming industry “Standard of Care” that must be met
Mobile Resource Management

- Five Components of a System
  - Mobile Hardware device, GPS, Radio, Sensor, Computer, PDA
  - Mode of Transport, wireless, wireline
  - Data interoperability server to manage disparate communication systems and devices
  - GIS data to support applications, map data imagery, pictures, drawings
  - Management software, CAD, incident management software, workflow, application specific software that enables the customer to make decisions real time
Deliver Location and Status of Mobile Resources and Sensors to the HS Enterprise

- Flexible, Interoperable Solutions
  - Client / Server
  - Web Based
- Redundant Systems
- Provide the real time data to your application with an open environment server
- Archive the data for replay, training and after action
- Data delivery supports CAD, Incident Management and GIS based applications
Architecture of MRM Integrated With ArcGIS Serving Real Time Data
RED Center, Northbrook, IL

- **Challenges**
  - Multi agency fire dispatch
  - Large geographic area
  - Very busy call center
  - No digital maps in dispatch

- **Results**
  - Visibility of entire RED fleet and RED service area
  - Increased safety
  - Leveraged ESRI GIS investment
  - Better mutual aid response
  - Who pays whom?
Making GIS Move…

- Combining GIS with real time data allows users to make better decisions with enterprise software solutions
- The five fundamentals of Mobile Resource Management
  - Hardware
  - Connectivity
  - Data interoperability server
  - GIS Data
  - Decision making software tool
- Interoperability of disparate location and sensor data into CAD, Incident Management and other enterprise software products enables command and control while reducing voice traffic