In 2010, under an Urban Areas Security Initiative (UASI) Grant, the Metropolitan Washington Council of Governments (MWCOG) CIO Committee’s Subcommittee for GIS Subcommittee worked with the KCI Technologies, Inc. team to implement the Department of Homeland Security’s Virtual USA (vUSA) pilot data sharing initiative into a robust, secure data brokerage that met the needs of the 22 individual jurisdictions and numerous agencies that operate within the National Capital Region (NCR). The result was a geospatial data exchange (GDX) that streamlines data sharing across the region and allows planners and emergency managers access to the information they need to make real-time and possibly life-saving decisions.

Officially launched in June of 2012, the NCR GDX has made critical contributions during emergency operations related to Hurricane Sandy and during the Presidential Inauguration. Throughout the storm, emergency management operations centers and jurisdictions were able to quickly access the information they needed to make timely decisions. Information that was shared included power outages, storm surge models, road closures, precipitation radar, and shelter locations. For Inauguration Day, more than 60 agencies ranging from top federal security and facilities operations to local police were able to access and share data to assist in managing the estimated one million attendees. In addition to the main library portal, the GDX suite of tools includes a Flex widget for integration into jurisdictional native viewers as well as a custom GDX ArcGIS Toolbar facilitating consumption of data feeds from GDX directly into the desktop platform. Until the GDX, no place existed where everybody who has an interest in what’s happening in the NCR could discover, publish and consume data.

Success Stories

**Hurricane Sandy** – As the hurricane approached, users posted data links related to storm activities such as local road closures, storm inundation, flood zones, early voting locations and shelter status. In addition, Maryland published a power outage data feed that aggregated data from local power companies based on zip codes to a single data feed for consumption. Finally, users also published useful public feeds from NOAA, USGS, FEMA and other agencies including weather, radar, stream gauges, wind probabilities and hurricane position tracking.

**Inauguration 2013** – The Presidential Inauguration typically involves more than 50 local, state and federal organizations, requiring significant coordination for asset placement and crowd management. Agencies posted their own asset data through GDX or provided digital files then posted by the D.C. government. Updates could happen more quickly, in a more collaborative spirit, and were instantly refreshed, resulting in higher quality data and increased availability.

Benefits

- Robust ability to publish, share and view data among all participations in NCR region
- Advanced information security features to protect sensitive data and sources
- Easy-to-use
- Access via NCRnet or the Internet
- Access from agency systems (VIPER, OSPREY, WebEOC, etc.)
- Ability to create and join special purpose communities and events for regional planning and coordination
- Support for non-ArcGIS server participants (ability to publish data feeds)
Related Programs:

Current Initiatives:

- Expansion of Near Real-Time Data including CCTV Traffic Cameras and Police/Fire Incidents
- Simplified User Interface
- Embeddable Data Links for Native Applications & Viewers
- Data Publishing Standardization
- Public Sharing of Data Links
- Federated Identity Management within the NCR
- Five-Year Strategic Plan and Sustainability Model

For more Information, please contact: ncrgdxsupport@ncrnet.us

Awards:

Special Achievement in GIS
2013 Award Winner

Engineering Excellence
2013 Grand Award Winner

Technology Solution Award
2011-2012 Significant Achievement in GIS