

Accurate, on-board map data enables critical functionality for Emergency Response network

NAVTEQ® Premium data licensed through ADCi allows the University of Maryland's CapWIN program to provide more efficient mapping functionality to first responders across multiple disciplines, jurisdictions, and levels of government.

The Challenge

Coordinating responses for all types of incidents requires access to up-to-date information and seamless communication between agencies. For public safety and transportation agencies, precise location information is also crucial for providing fast emergency response and maintaining situational awareness. The Capital Wireless Information Net (CapWIN) is a regional coalition of public safety, transportation, and emergency services agencies across all levels of government in Maryland, Virginia, and the District of Columbia. Developed by the University of Maryland's Center for Advanced Transportation Technology (CATT), the CapWIN program delivers interoperable data communications and information sharing to first responders across these jurisdictions and disciplines.

CapWIN has developed a Government Off-the-Shelf (GOTS) mobile suite of applications designed specifically for use in the field via wireless data connections. The solution enables operational data access, incident coordination, and situational awareness for more than 6,000 registered users from 125 agencies in the region. The CapWIN solution is now available for use by other public safety and transportation agencies across the nation.

In 2008, CapWIN began planning for the incorporation of Geographic Information System (GIS) and mapping functions into its suite of Mobile Applications. Although many online, server-based mapping solutions provide free mapping functionality, the mission-critical nature of the data to which CapWIN's software provides access, coupled with the need for CapWIN software to function in a low- or no-connectivity state, required that CapWIN implement a software mapping solution that would be able to reside locally on first responder mobile computers.

The Solution

CapWIN has seamlessly integrated a wide variety of data resources to create its field-ready software suite, including advanced mapping tools, criminal justice data access and social networking capabilities via mobile data computers. To ensure that the geospatial needs of the program were being fulfilled, CapWIN licensed NAVTEQ NAVSTREETS Premium data for Maryland, Virginia, and the District of Columbia through American Digital Cartography, Inc. (ADCi). ADCi was instrumental in working with the CapWIN Program to identify the appropriate and most effective data solution that would meet the needs of CapWIN's first responder community.

The NAVTEQ dataset has been automatically distributed to first responder mobile computers using CapWIN's Mobile software solution. The use of NAVTEQ map data is a critical component to the program because it allows for detailed maps to reside locally on each mobile data computer, thereby ensuring that mapping operations function properly and continuously regardless of network connectivity.

THE CHALLENGE

- ⦿ Incorporate GIS and mapping functions into the CapWIN Mobile software solution, while meeting these criteria:
 - Map data will reside locally on mobile devices.
 - Mapping functions must perform with little or no connectivity.
 - Map data must be highly accurate to support mission-critical nature of the data accessed through the CapWIN solution.

THE SOLUTION

- ⦿ NAVTEQ NAVSTREETS Premium data for Maryland, Virginia, and the District of Columbia, licensed and updated quarterly through ADCi.
- ⦿ Data is automatically distributed to first responder mobile computers.
- ⦿ Detailed maps reside locally on each mobile data computer, ensuring that mapping operations function properly and continuously regardless of network connectivity.

THE BENEFITS

- ⦿ Enables GIS presentation of CapWIN's operational data
- ⦿ Enables more accurate location identification of CapWIN user -created incidents
- ⦿ Improved situational awareness for CapWIN users of incident locations
- ⦿ Provides a platform for more easily incorporating additional geo-located datasets.

The Benefits

Licensing NAVTEQ data through ADCi for use in their solution has created several advantages for the CapWIN program. Through the addition of mapping functionality with NAVTEQ, CapWIN's operational data can now be integrated into GIS applications for a variety of functions above and beyond the original uses. The maps now provide a visual representation of incident locations visible to all participating agencies and accessible on mobile computers in the field. Fresh data also enables more accurate location identification of CapWIN user-created incidents and provides improved awareness of incident locations for CapWIN users. This is critical in the emergency response industry, and the exceptional accuracy of NAVTEQ map data ensures that location information for incidents is always precise.

The most important benefit provided by the NAVTEQ map data is the ability to power the application's geospatial capabilities in a state of wireless disconnection. The CapWIN solution is designed to aid response coordination for both small- and large-scale incidents, so it is imperative that the application retain the ability to access data in extreme conditions. By integrating locally-resident NAVTEQ data, CapWIN is effectively guarding against inconsistent connectivity and outages common in a mobile environment. They have also established a platform to more efficiently incorporate additional geo-located datasets into the CapWIN Mobile Suite, making it easier to expand and add value to the program in the future. CapWIN now has the ability to develop functionality beyond map display such as geographically based incident alerts and automatic responder dispatching.

About CapWin

The Capital Wireless Information Net Program (CapWIN), part of the University of Maryland's Center for Advanced Transportation Technology (CATT), is a collaborative partnership between the State of Maryland, the Commonwealth of Virginia, the District of Columbia, and the Federal Government to develop an interoperable first responder data communication and information sharing network delivering operational data access, incident coordination and situational awareness across CapWIN's multiple jurisdictions and disciplines. Today, CapWIN has 6,000+ registered users from more than 125 public safety, transportation, and emergency services agencies drawn from all levels of government operating in its three jurisdictions, including regional authorities. CapWIN is staffed by the University of Maryland, Department of Civil and Environmental Engineering's Center for Advanced Transportation Technology (CATT), and operates under the guidance of a Board of Directors comprised of representatives from local, state, and Federal member agencies.

About ADCi

Headquartered in Appleton, Wisconsin, American Digital Cartography, Inc. (ADCi) has specialized in providing digital mapping products and services since 1988. As a leading distributor for NAVTEQ, ADCi has helped customers in every market successfully secure the correct data and license for their mapping application, including government, business and Internet-based applications. Maps are available in a variety of formats and available by the city, county, state, or the entire United States, and provided in virtually any coordinate projection.

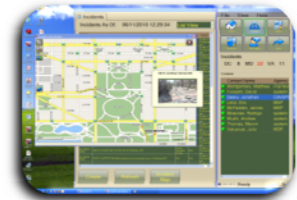
About NAVTEQ

NAVTEQ is the leading global provider of digital map, traffic and location data that enables navigation and location-based platforms around the world. NAVTEQ® maps span 83 countries and territories on six continents. NAVTEQ is headquartered in Chicago, IL, USA, with approximately 5,100 employees worldwide located in 212 offices in 48 countries.

How NAVTEQ Helped

- Highly accurate map data from NAVTEQ enables CapWIN users to precisely locate incidents and other information that is critical to public safety, transportation, and emergency services personnel. NAVTEQ's unparalleled data collections processes deliver data consistent with real world conditions, which allows the CapWIN program to provide maximum productivity to first responders.
- ADCi delivers quarterly updates to CapWIN which include countless changes and additions made by NAVTEQ, and provide optimal value to the program by ensuring that CapWIN has the most accurate and freshest data available.

ADCi is a NAVTEQ valued reseller.



"ADCi was instrumental in assisting the University of Maryland CAPWIN Program with accessing the NAVTEQ data we needed to deliver high-quality maps to our first responders in support of their mission crucial operations."

– Roddy Moscoso, Deputy Director, CapWIN