NTConcepts

Putting At-Risk Clients on the Map

Increasing awareness and improving efficiency with Google™ Maps API for Business

UNITED STATES COURTS

The U.S. Courts Federal Probation and Pretrial Services System are responsible for processing persons (clients) who come through the Federal Legal system, and to help them re-integrate into society.
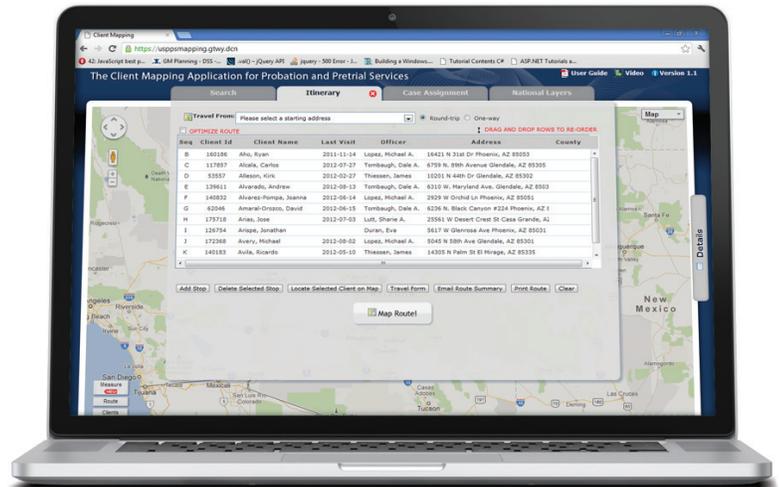
The Challenge

The U.S. Courts support clients of various risk levels across the entire country. Client records are geocoded and stored across several division databases. A centralized database then aggregates all records into one repository, which is used for general mapping purposes. Much of the workload of the U.S. Courts' field officers involves frequent in-person visits to clients, a task that involves a large amount of route and itinerary planning, which is both time consuming and costly.

The U.S. Courts needed to increase their case management efficiency by updating their mapping and logistics planning tools, as well as improve the spatial understanding of their total caseload and maximize the time each field officer spends traveling to individual clients.

The Solution

NT Concepts developed a web mapping application (The Probation and Pretrial Services Client Mapping Application) using the Google Maps API for Business to support the overall mission of the U.S. Courts by improving their geospatial awareness. The app is primarily a 2D Google Maps interface, but also supports viewing client locations in street view and 3D Google Earth. Officers can easily preview each client location in preparation for their daily in-person visits.

> "We use the mapping application regularly to make sure that cases are appropriately assigned."
>
> **Rod McCone**
> Supervisory U.S. Probation Officer

AT-A-GLANCE

Google Maps API for Business provides U.S. Courts with a location-based app that improves the safety and efficiency of their field officers, and gives greater workforce transparency to supervisors.

» A query tool to filter client records spatially and by case keywords.
» A route planning tool to manage a field officer's daily itinerary, and to share and archive this information for security and report logging purposes.
» A directions service to generate optimized routes, and then export to a navigation device.
» A notification service to email route summaries to supervisors.
» A mapping system to support the display and interaction of GIS/geospatial situational awareness layers in support of an officer's field visits.
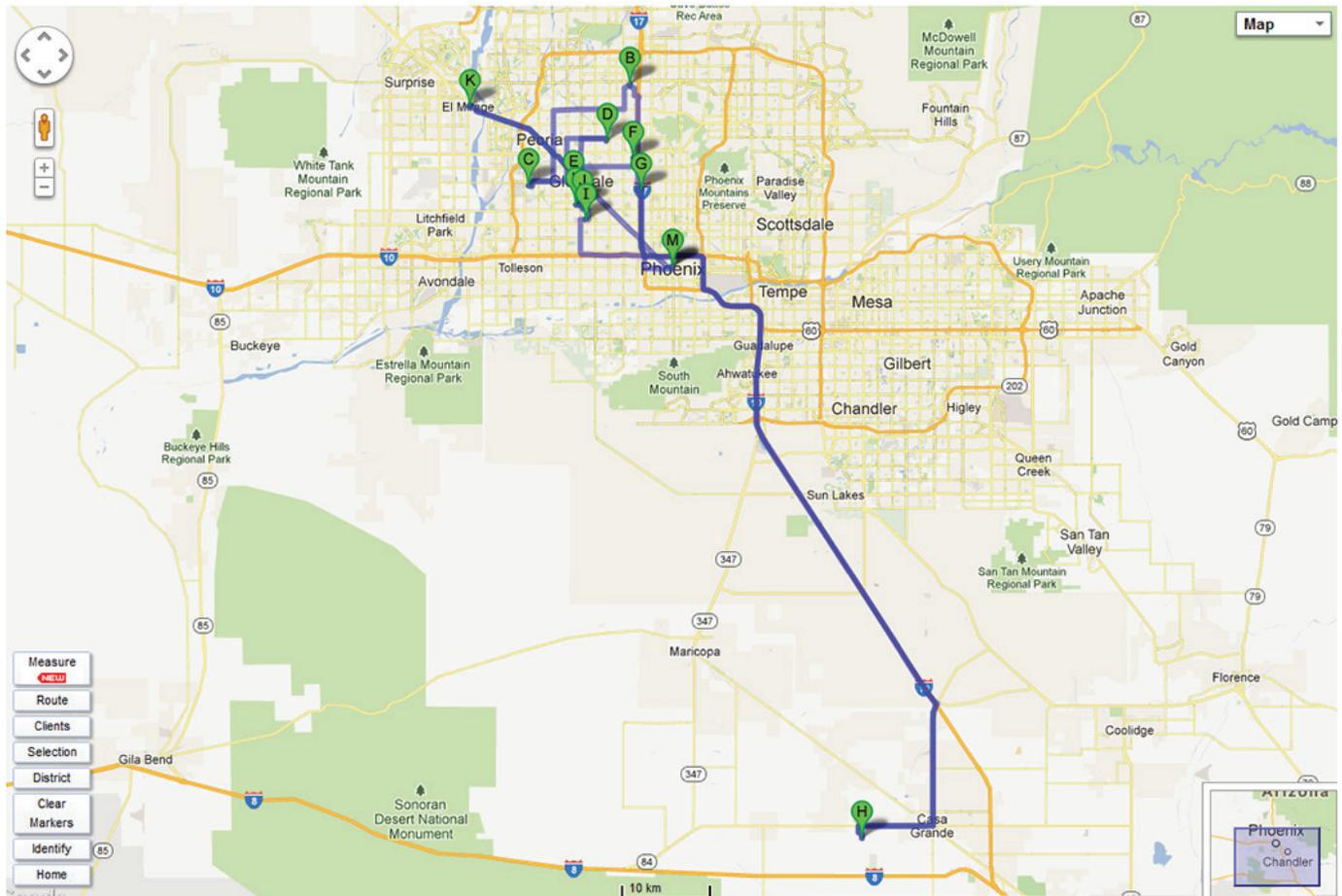
Utilizing Google Maps API routing capabilities, the app helps field officers plan more efficient routes—the coordinates of the generated routes can be transferred to a navigation device, saving the officer the time of manually entering up to 20 addresses. Officers can then generate daily travel itineraries based on caseload and visualize these on a map, and see where and how they might share case loads or assist other officers. The travel routes can be saved/exported to mobile devices and shared with other field officers and/or supervisors, and later archived for security and report logging purposes. Supervisors use the app to visualize existing caseload locations on a map, and take into account both the nature of the case and the location of the officer's existing cases when assigning new cases.

The app has an intuitive and easy-to-use interface to filter client records by region, district, supervisor, and probation officer case loads, as well as spatial filters to help further plan work days. Additionally, several GIS and geospatial layers were added to the map to further improve spatial awareness and understanding. For example, the application can highlight offenders that have been convicted of certain types of offenses, or display offenders by the degree of risk they present for relapse. The application can also email an itinerary to a colleague or supervisor, letting them know where officers will be traveling, which aids communication in the case of an emergency.

> "This is a quick easy tool to visually show us where our high-risk cases are, and where to spend our time and efforts."
>
> **Barbara Feril**
> Deputy Chief U.S. Probation Officer

About NT Concepts

NT Concepts is a technology and business solutions company that focuses on data analytics, software, and geospatial information systems. We integrate leading technologies, proven best practices, and professional expertise to deliver innovative solutions that drive operational efficiency and inform critical decision making. NT Concepts provides a broad range of DoD, Intelligence Community, Federal Civilian, and State and Local customers with geospatial solutions for enterprise, cloud-based, and mobile environments.

NT Concepts has been a Google Enterprise Partner since 2006 and is an authorized reseller of Google geospatial products.

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