Communications Case Study:

Verizon Communications

Planning and repairs for Verizon Communications in Manhattan once meant days of researching schematic drawings and various databases. It was a manual process that was both time-consuming and labor intensive. When TSI first became involved with Verizon, it was to provide mapping that would help them control and manage the company's costly fiber assets.

After the disaster on September 11, 2001, Verizon realized that it was imperative to have a system that would provide information about the entire infrastructure (copper and fiber) in order to be prepared and responsive. TSI developed and delivered the solution—the system was available to support them during the period when the infrastructure in the World Trade Center area was being rebuilt. Today, it is easy to enter the number of a particular cable or fiber and see a geographic representation of that item on a map, along with all the attributes of that fiber/cable. That same map and data can be exported quickly into other programs, such as Microsoft Excel or MapInfo Professional, for additional analysis.

The system that TSI has implemented for Verizon offers many perspectives on equipment location, making it particularly easy to respond to both emergency and routine customer needs. A specific manhole, terminal, or street address can be entered to reveal a map of the cable and fiber in the area. The map consists of a series of overlays that display lot boundaries, manholes, central office locations, and street information.

Verizon personnel can add new fiber, copper, and manholes into the database, and see them appear on maps immediately, rather than the month or more that was required using the company's old processes. And errors in the data that Verizon receives from vendor databases are quickly identified for review and correction, rather than being detected after they had caused confusion to personnel.

With the insightful application of technology by TSI, Verizon made the best of a major tragedy and entered a new era of emergency preparedness and customer responsiveness.

Primary Needs:

- Inventory control and management of fiber resources
- Complete resource visibility, including copper
- Improved responsiveness to problems

Solution:

- An easy-to-use GIS application that maps any copper or fiber in Manhattan
- Layered mapping showing cable/fiber superimposed over lot boundaries, manholes, street information
- Data available for export and additional analysis
- Validation of data provided by vendors
- Standard and ad hoc database query support

Benefit Highlights:

- Mapping by manhole, terminal, or street address
- Updates and corrections immediately visible to engineering personnel, as opposed to previous month-long delays
- Tremendous improvements in emergency preparedness