CASE STUDY: SHANGHAI TELECOM, CHINA

SHANGHAI TELECOM MANAGES RAPIDLY EXPANDING COMMUNICATIONS NETWORK WITH INTERGRAPH® SOLUTIONS

Intergraph’s Communications Infrastructure Management Ensures Reliable Support for World’s Largest Wired Nation

IDENTIFYING GOALS

China has emerged as the world’s largest wired nation thanks to rapidly accelerated growth in a very short timeframe. Five years ago, only one out of 10 Chinese citizens had telephone service. Today, more than one out of three have a fixed-telephone subscription and cellular subscribers grow by more than 1.25 million every week. By the end of 2007, China had 370 million fixed-line subscribers and 530 million mobile subscribers. The combined figures account for a fifth of the world’s total phone subscribers. In addition, China has become the world’s largest Internet market. The number of Internet users in China passed 200 million in 2007, according to the China Internet Network Information Center. With just a fraction of its population currently connected and online, China’s growth in the telecommunications sector will continue to multiply at unmatched levels.

China Telecom restructured its telecom business assets in 2002 to help prepare for the industry’s expected growth. Shanghai Telecom, a subsidiary of China Telecom, operates and manages the fixed-lined phone service, Internet-related services, mobile telecom services, satellite telecom service, and paging services. To manage China’s unique market dynamics and ensure reliable support of these critical new infrastructures, the company needed geospatially enabled technology capable of managing its vast and rapidly changing network.

OVERCOMING CHALLENGES

- Manage rapid growth of dynamic telecommunications sector
- Ensure reliable support
- Build open, standards-based technology foundation that serves immediate and future needs

REALIZING RESULTS

The high density of information and vast extent of Shanghai’s operations demanded a scalable tool that delivered consistently high performance. Shanghai alone has a population of more than 20 million. Shanghai Telecom implemented the Intergraph® Communications Infrastructure Management solution to geospatially manage its network. Intergraph provides a complete range of geospatially enabled...
infrastructure management solutions for utilities, energy, and communications companies. The solutions improve planning, design, construction, and maintenance productivity, and improve the efficiency, reliability, and responsiveness of operations.

Shanghai Telecom partnered with Guoxin Lucent Technologies (GXLU) to implement Intergraph’s Communications Infrastructure Management solution. Today, the geospatial solution from Intergraph supports a growing user base with more than 600 engineers accessing 12 million records describing 450 different types of facilities. In mid-2003, about 1,100 staff members started working to capture and digitize Shanghai’s telecommunications network information into the Intergraph solution. The company completed the massive exercise nine months later, with 100 percent of Shanghai’s network captured, ground verified, and described with metadata using the geospatial solution from Intergraph. In recognition of this achievement, Shanghai Telecom was inducted into Intergraph’s 100 Percent Club. The Intergraph 100 Percent Club Award reflects the achievement of an important milestone by our utility and communications customers – full conversion of their network model into a digital geofacility model.

The enterprisewide network resource management system streamlines departmental workflows in design, planning, operations and maintenance, construction, and marketing activities. Coupling the telecom’s customer relationship management system and operational data with the Intergraph solution enables more effective decision support. Shanghai Telecom can analyze data from multiple business sectors and better understand its customers.

Intergraph’s Communications Infrastructure Management provides Shanghai Telecom with solutions to reduce operational costs and offers access to network configuration. Capacity information supports the decision-making process related to network expansion and maximum use of the existing infrastructure. This capability is critical with China’s rapid pace of expansion.

“In order to compete in today’s fast-track business environment, Shanghai Telecom has placed a strong emphasis on building an open, standards-based technology foundation that will meet our current needs, while gaining the flexibility and performance we’ll need to serve our future markets,” said Yin Jie, Shanghai Telecom’s project manager for the Intergraph implementation project (NetGraph). “This geospatial empowerment of corporate data means Shanghai Telecom can make decisions with far more confidence and much faster than ever before.”

**MOVING FORWARD**

Shanghai Telecom’s achievements demonstrate the performance of Intergraph’s solutions when faced with some of the most extreme demands imaginable. The company anticipates continued return on investment as its dynamic growth continues.

“The high density of information and the vast extent of our Shanghai operations demand a tool that is massively scalable and can maintain consistently high performance without any degradation,” Yin Jie said. “We selected Intergraph technology as it was the only one that came close to delivering for our current demands, and it serves as an investment to deal with even greater demands we will place upon it in the future. Intergraph’s approach of metadata-driven management of the information has given us considerable comfort, and provided a final quality assurance step in our capture process.”

**ABOUT INTERGRAPH**

Intergraph is the leading global provider of engineering and geospatial software that enables customers to visualize complex data. Businesses and governments in more than 60 countries rely on Intergraph’s industry-specific software to organize vast amounts of data into understandable visual representations and actionable intelligence. Intergraph’s software and services empower customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure and millions of people around the world.

Intergraph operates through two divisions: Process, Power & Marine (PP&M) and Security, Government & Infrastructure (SG&I). Intergraph PP&M provides enterprise engineering software for the design, construction, and operation of plants, ships, and offshore facilities. Intergraph SG&I provides geospatially powered solutions to the defense and intelligence, public safety and security, government, transportation, photogrammetry, utilities, and communications industries.

For more information, visit www.intergraph.com.