

# China Telecom Corporation, Ltd.

## *PMI standards used to develop communications network for city*

China Telecom Corporation Limited (China Telecom) is the world's largest landline telecommunications and broadband services provider. Covering cities and towns as well as the rural areas of China, China Telecom has more than 220 million landline subscribers and more than 35 million broadband subscribers, and penetrates every corner of the world.

Shenzhen Telecom, a wholly owned subsidiary of China Telecom in Shenzhen city has successfully leveraged PMI guidelines to manage one of the company's largest and most successful projects, which would later be deemed the "No. 1 Project" for Shenzhen Telecom in 2006.

### Background

In May 2006, Shenzhen Telecom won the bid to develop the communications network for Shenzhen city's Nanshan District of China, a project that would connect government offices, neighborhoods, schools and community healthcare service centers. Shenzhen Telecom was tasked to extend optical fibers throughout the area with the goal of improving the government's ability to serve its people and promote seamless and effective communication.

The China Telecom Shenzhen project team began work on the Nanshan District on July 6, 2006, over a year after they won the bid, and aimed to complete the project by November of 2006. The total contract amount for the project was US\$3 million.

### Challenges

The Nanshan District project presented various challenges for the Shenzhen project team. Staying on schedule was a primary concern as the signing of the contract, which would officially launch the project, was completed late in the schedule. Due to the delay of the contract, the team initiated the project according to the information in the letter of intent, which posed some problems as the letter of intent and the actual contract differed slightly. This caused the team to

have to make changes and modifications mid-project which, in turn, impacted the overall schedule.

The Nanshan District Optical Fiber Network consisted of six optical fiber networks: government, education, health, network, community network, and politics and law network, all of which were connected to the three levels of Nanshan District government, sub-district offices and communities. Having this many networks posed a challenge as the Shenzhen project team needed to ensure that activities associated with each unit were appropriately coordinated with the greater team.

The complexity and scope of the project itself presented a challenge for the team as well. Due to the vast size of the project, Shenzhen Telecom had to involve 10 different departments within the company and required the participation of numerous related units of design, construction and supervision, which necessitated immense organization and management. These units would have to oversee the laying of more than 426 new routes of optical fibers to create the network for the Nanshan District, and the project execution required difficult coordination and mandatory approvals that threatened the project's pre-determined timeline and schedule. Additionally, with so many individuals involved in such a complex project, there was a high risk of communication failures.

### Solutions

To ensure that the Nanshan District project was completed on time and within the boundaries set by the District, the Shenzhen project team utilized standards defined by PMI to ensure successful collaboration and project management.

Due to the immense scope of the Nanshan District Network, the leaders of Shenzhen Telecom attached great importance to the project, terming it the "No. 1 Project," and formed a Project Management Committee, which would give the China Telecom team structure and standardized processes. Under the committee, there was a Client Coordination Team, Project

Construction Team and Deployment & Delivery Team, which formed a project management organizational structure that built a sound management platform.

To ensure timely and effective communication, the team launched the “No. 1 Project Mailbox,” which provided a platform for the team to share updates surrounding logistical information, ongoing activities and scheduling, and gave all the individuals involved full visibility into the project. In addition, the project team ensured effective communication by fully leveraging traditional project management communication means such as coordinating routine meetings to discuss project initiatives and developing weekly reports to track project progress.

Communication was also strengthened with the development of a “unified client communication interface,” which was a system where various Shenzhen Telecom centers had a designated Nanshan District channel contact as the interface for communication with the client. This helped improve client satisfaction because each individual Nanshan District Network was given exclusive attention so communications regarding changes and other issues were efficiently and successfully addressed.

The project documentation processes put in place also helped ensure things ran smoothly as it enabled the team to review the progress of each activity and identify scheduling and budget problems before they became unmanageable. As part of the documentation process, specific team members were appointed to take charge of managing the documents and project logs were developed and refreshed regularly. This, in turn, kept the team on task and effectively controlled the many moving parts of the project.

To further ensure that the project stayed on schedule and ran smoothly, the Shenzhen project team took measures to anticipate difficulties in meeting the project schedule and then created plans and programs to overcome those potential issues. For example, using proven PMI standards and principles, the team addressed the anticipated schedule difficulties by instituting a program in which the performance progress of each unit associated with the project was made visible across all units and top performers were publicly recognized. This inspired the team to stay on task and work hard to achieve both personal and team success. Additionally, during the last phase of the project, the team launched the “No. 1 Project War Room,” which released a daily countdown report to create a sense of urgency and fulfillment among team members, further helping them meet the project schedule.

## Results

The Nanshan District Network project was successfully completed on November 28, 2006—ahead of the team’s target completion date. Through the use of proven project management ideologies, the China Telecom team was not only able to keep the project on schedule, but it was also able to execute activities effectively and efficiently.

Given that they were so pleased with the execution and outcome of the project, the Nanshan District government awarded Shenzhen Telecom with a pennant for its performance.

In addition to the great results and benefits that the Nanshan District achieved, the project also produced significant economic and social benefits for Shenzhen Telecom. In fact, the success of the project has enhanced Shenzhen Telecom’s credibility as the top communications provider, truly making the Nanshan District Network project the undisputable “No. 1 Project” for Shenzhen Telecom in 2006-2007.

## Key achievements

- The China Telecom Shenzhen project team was able to complete the project successfully and within the pre-determined timeline.
- The Nanshan District government was so pleased with the delivery and execution of the project that it awarded a pennant to Shenzhen Telecom.
- The development of the “unified client communication interface” was the first of its kind for a large Shenzhen Telecom client and marked a “best practice” program that will be applied to large Shenzhen Telecom clients moving forward.
- Shenzhen Telecom strictly enforced project management standards and processes, which effectively controlled the impact of mid-project changes with the final control ratio maintained at 22.8 percent.