



Nanjing Children's Hospital

Molex Cabling Supports Children's Health in Jiangsu Province

HOSPITAL INDUSTRY BY MIKE SHEN | MOLEX CES



Project Overview

- The most important children's hospital in Jiangsu Province
- 1.97Bn RMB (300M USD) investment project
- ModLink™ pre-terminated fiber solution applied in hospital data center
- 64.4KM Lightband™ OM4 optical fiber, 1024 Channels of PowerCat™ 6A FTP products and 9437 channels of PowerCat™ 6 UTP products

The Hospital

Nanjing Children's Hospital was founded in April 1953, formerly known as the Sacred Heart Children's Hospital founded by the Franciscan Missionaries of Mary in 1936. In 1999, Nanjing Children's Hospital became an affiliated hospital to Nanjing Medical University and now it is a comprehensive pediatric medical institution with medical, research, teaching, prevention and rehabilitation. By 2016, there were 2260 members of staff working in the hospital, providing medical services for 2.29 million patients, discharging 70,000 sick children and completing 22,800 surgeries during the year.

The Project

The original location of Nanjing Children's hospital is in downtown Guangzhou Road, Nanjing in Eastern China. In this region the roads are very narrow and the huge number of patients and their

vehicles not only blocked the traffic but also threatened the safety of the patients and other passengers. So, the Nanjing municipal government invested 1.97 billion RMB (\$300 million USD) to build a new facility in Nanjing Hexi District. The new Hexi branch covers an area of 915,000 square feet (85,000 square meters) with 1.8 million square feet (168,000 square meters) of construction area. The main hospital building has 12 floors and one underground floor. The project was officially completed on May 30th 2016 and put into immediate use.

Because Nanjing Children's hospital now has two branches, all the key functions are being transferred gradually from the old Guangzhou branch to the new Hexi branch. This will not only relieve the traffic pressure in the downtown area but also improve the sick children's treatment environment and improve doctors' working efficiency. Meanwhile, as the most important pediatric hospital in Jiangsu Province, new technologies such as remote consultation and remote surgery instruction are being widely used in Nanjing Children's hospital. Transfer of the key functions, alongside these other improvements requires far greater storage and data transfer capability than would be needed in a typical hospital. It was for these reasons that the data center of the Children's Hospital became a huge feature of focus during the design and construction phases of this project and choosing the right networking infrastructure products supplier was clearly critical for hospital leaders.

They comment: "Molex's extensive experience in data center design and construction, especially their abundant experience on pre-terminated fiber

solution installation, together with the quick delivery capability of full range copper and fiber products perfectly fulfilled our requirement, so we ultimately chose Molex as our network infrastructure products provider."

The Installation

The Nanjing Children's hospital Hexi branch's network is divided into four parts: intranet, extranet, intelligent equipment network and telephone:

The intranet system runs the entire hospital information and HIS system and is also connected to the Guangzhou branch network directly, so the entire intranet is connected by 40 miles (64.4km) of Lightband™ OM4 optical fiber. There are also 384 channels of fiber-to-desk applications in the main clinic rooms, offices and key areas, giving doctors full access to high-speed connections for remote video treatment and remote surgery instruction.

The intelligent equipment network connects the intelligent treatment devices, most of which operate in harsh environments, for example intensive care units, radiation rooms or surgery rooms. These are often small spaces packed with large numbers of devices generating electromagnetic interference and radiation pollution, so all 1024 intelligent equipment network channels use PowerCat™ 6A shielded products to ensure that data transmission isn't interrupted by the environment and meet the operating requirements of the intelligent devices.

The telephone network and extranet are distributed throughout the hospital and these outlets may be switched at any >>

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time, according to hospital's application demand. The entire telephone and extranet of 9,437 outlets has been installed with PowerCat™ 6 UTP products, which makes switching outlet functions very simple for hospital IT managers. Molex's patented DataGate™ module with spring-loaded shutter will protect electrical contacts from being polluted by dust and contaminants, significantly extending the lifetime of the channels and reducing maintenance costs.

The entire data center and Disaster Recovery Center have 536 pcs of ModLink™ MTP – LC pre-terminated fiber cassettes installed, which are connected by 66 pcs of 96 core ModLink™ cables, and linked to 7430 outlets by LC fiber patch cords. By deploying the ModLink™ pre-terminated fiber solution, Molex helped the hospital saved 80% of the installation time for data center and Disaster Recovery Center and ensure the smooth transfer of the data transaction between two hospital branches.

The hospital leaders comment: "With the great support of Molex's expert employees, we successfully completed deployment of the structured cabling system and achieved our target of opening the Hexi branch before Children's Day - June 1st 2016. We believe that choosing Molex for our structured cabling products is the right decision for our hospital."

Conclusion

"The implementation of Nanjing Children's Hospital Hexi branch means Molex has made an important breakthrough in the medical industry." Molex Connected Enterprise Solutions Greater China Sales Director Timothy Lam comments: "As the Chinese government continues its significant investment in the medical industry, hospital data centers become more important than ever. I hope Molex's abundant experience in data center design and deployment will be applied widely in hospitals and enable us to make a significant contribution to the growth of the Chinese medical industry."

