



SYSTIMAX® Solutions

“The iPatch solution is more than just hardware. It’s a comprehensive, fully supported solution that gives users the power they need to control their critical network infrastructure. Network managers’ and technicians’ productivity is enhanced through a combination of automation and process efficiency.”

Laura Chen
Regional Sales Director of Greater China,
CommScope

CommScope Intelligent Infrastructure Helps China Huaneng Group Manage its 20,000 Outlet Network

iPatch® solution gives managers knowledge and control over 2,200 km of GigaSPEED® and LazrSPEED® connections at new Beijing HQ

Summary: IT managers wanted their large, mission critical network infrastructure to combine high performance, ease of management and strong security. Their installation, built using SYSTIMAX 360 solutions, is a model of its kind; both its physical layer management and its physical appearance set new, higher standards.

China Huaneng Group is among the top five power generators in China, operating more than 80 thermal and hydroelectric power plants. As well as generating and selling electricity, the company constructs power plants and is investing in renewable energy. It is also diversifying into new areas including finance, information technology and transport.

To accommodate its rapidly growing business, China Huaneng Group is moving to a new landmark headquarters in Beijing's Chang'an Street. It will occupy 1,280,000m² of construction area on 16-floors served by a network with close to 20,000 information outlets connected to several central computer rooms.

For its all-important network infrastructure, the company looked for a supplier it could trust to deliver the best copper and fiber solutions. In addition to many mission critical data systems, the network has to support voice, video surveillance and building management applications, so reliability is vital. To ensure this, the company wanted a supplier with proven service quality and technical expertise in large scale, high performance installations.

After considering the alternatives, Huaneng chose CommScope and its globally recognized SYSTIMAX solutions. CommScope has a strong record in China including successful, large scale projects at Beijing International Airport, the Guangzhou Asian Games facilities and the Hangzhou Citizen Center.

Huaneng IT managers also liked the SYSTIMAX top down systems approach with the option to include intelligence in the physical layer infrastructure. With iPatch Intelligent Infrastructure Solutions, the physical layer provides more than just high performance communication. It also gives managers the vision and knowledge they need to be in full control of the network. The effectiveness of this solution had already been proven in China in major projects for companies including SINOPEC and CNOOC.

The China Huaneng Group chose two local CommScope BusinessPartners for installation of the network infrastructure. It selected Beijing Zhongdian Xingfa Science Co. to handle work in the office areas, and Beijing Chatone Computer Room Equipment and Engineering Co., Ltd for infrastructure in the computer rooms.

Together, the two companies installed 2,135km GigaSPEED XL 3071 LSZH (Low Smoke Zero Halogen) copper cabling. This 1 Gb/s solution comfortably exceeds specifications of the Category 6 cabling standard, giving users a valuable extra margin of performance.

The companies also installed 30km of plenum-rated LazrSPEED 300 fiber cabling. This provides 10G data transmission over distance up to 300m without need for expensive single mode electronics.

The copper and fiber infrastructure is connected via 1,500 iPatch intelligent patch panels located in the computer rooms and in 36 communications rooms throughout the building. The panels detect where connections have been made and feed this information back to software on network managers' desktop PCs.

The iPatch panels are also connected to in-cabinet displays that show technicians information on where new connections should be made. The displays and light emitting diodes on the panels verify when patch cords have been plugged in correctly.

"The iPatch solution is more than just hardware," said Laura Chen, Regional Sales Director of Greater China, CommScope. "It's a comprehensive, fully supported solution that gives users the power they need to control their critical network infrastructure. Network managers' and technicians' productivity is enhanced through a combination of automation and process efficiency.

"Real-time enhanced location information for physical layer networked assets gives much better visibility and control of physical layer infrastructure. So, in addition to saving time, there are fewer connection errors and security is much improved."

A team of 30 technicians and engineers worked on installing SYSTIMAX infrastructure in the computer rooms. The team for the office areas was 60-strong and their work included installation of above 800 fiber connections to desktops as well as the GigaSPEED copper connections. During the building's fit out, the two teams had to work against a tight schedule in close cooperation with each other and other trades working on the site.

In the computer and communications rooms, the holistic approach to design of SYSTIMAX 360 solutions was an important benefit. As well as saving space and easing installation, the CommScope patching hardware gave the rooms a clean uncluttered appearance.

"The 360 iPatch Solution looks as efficient as it is," said Laura Chen, Regional Sales Director of Greater China, CommScope. "Traditional patch panels often look cluttered; technicians are presented with a mass of cords that hide the connectors and make their work harder. The SYSTIMAX 360 approach moves us forward a generation to a point where managers can open the door to their communications rooms and be proud of what can be seen inside."



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