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Technology at Hanoi Stock Exchange moves to the forefront with CommScope's intelligent network infrastructure

Customer

Hanoi Stock Exchange

Country

Asia

Challenges

The Hanoi Stock Exchange, among the world's newest, is becoming one of the most efficient with the construction of a new, state-of-the-art data center.

CommScope solution

For fast, reliable networking within the center and across trading and settlement areas, the exchange chose high-performance GigaSPEED® X10D copper and LazrSPEED® fiber solutions. To save time on infrastructure management and improve security, it uses the iPatch solution to give network administrators the knowledge and vision they need.

"CommScope is well established as a leading supplier of structured cabling worldwide. It has a reputation for reliability and was able to show us successful installations at other data centers across Asia. So, we were confident that the company and its local BusinessPartners could meet all our infrastructure performance requirements—and we were impressed by their iPatch intelligent management solution."

—Mr. Vu Phuc Toan, IT Deputy Director at the Hanoi Stock Exchange

Established in 1998 to replace the Hanoi Securities Trading Centre, the Hanoi Stock Exchange began operation in March 2005 and now lists more than 395 stocks, bonds and other securities. Its founding principles are transparency, equality and efficiency achieved through use of the latest technology for trading, settlement and information disclosure.

At the heart of the exchange's technology is its data center, and the foundation for this facility is its network infrastructure. As part of an ongoing program of technology improvement, the exchange upgraded this infrastructure in what is Vietnam's biggest data center cabling project.

Selecting the right cabling infrastructure

The choice of new infrastructure was critical since any disruption of key systems during installation and operation was unacceptable. As in all stock exchanges, transactions are time critical and issues with settlement systems have major financial implications, so reliability and speed are top priorities. To ensure these were achieved, the exchange looked for a world-class provider with connectivity solutions already operating successfully in data center reference sites.

Four specific technical requirements were set for the new infrastructure. To improve speed of installation and reliability, the cabling had to be factory terminated and, to provide flexibility for change and growth, it also had to be modular in design.

In addition, the exchange wanted true, end-to-end 10G Category 6A/Class E_A performance over 100-meter copper connections. Similarly, the multimode fiber backbones had to provide performance of 10 Gb/s or higher over extended distances. The fourth requirement was for intelligent infrastructure management that would cut the time and cost of maintenance while, at the same time, improving security.

An intelligent solution

A comparison of network infrastructure suppliers produced a clear winner. CommScope, with its SYSTIMAX® range, met all the exchange's requirements and it backed its installations with a global support network and industry-leading guarantees.

"CommScope is well established as a leading supplier of structured cabling worldwide," said Mr. Vu Phuc Toan—IT deputy director at the Hanoi Stock Exchange. "It has a reputation for reliability and was able to show us successful installations at other data centers across Asia. So, we were confident that the company and its local PartnerPRO® Network providers could meet all our infrastructure performance requirements—and we were impressed by their iPatch intelligent management solution."

The iPatch intelligent infrastructure solution gives network administrators vision, knowledge and control of the network physical layer through a PC on their desk. It also alerts them immediately of any changes—greatly improving network security by detecting and locating unauthorized access points in seconds.

Added to this, the iPatch solution saves time when making changes to the network—allowing change requests to be raised and delivered electronically. Administrators can then guide technicians doing the work via screens at the patch panels and track their progress in real time.

Simpler connections

The iPatch panels are located in the data center and six communications rooms distributed through the building. Trunk connections between these rooms are via LazrSPEED 550 multimode fiber that exceeds specifications of the OM4 fiber standard. Data transmissions speeds of 10 Gb/s can be maintained over distances up to 550 meters.

For speed of installation and reliability, the InstaPATCH Plus solution is used on LazrSPEED connections. This high-density, factory-terminated, factory-tested modular solution enables installers to connect cabling components much more quickly and easily. With the InstaPATCH Plus solution, up to 96 fibers can be ready for service in the time it takes to make a single connection using traditional methods.

Horizontal connections from patch panels to 10G outlets throughout the building use GigaSPEED X10D connections. These exceed the full specifications of the Category 6A/Class E_A standards for copper cabling—supporting data transmission at 10 Gb/s over a 100-meter connection with up to four connectors.

Trouble-free installation

Two CommScope BusinessPartners were chosen to complete installation work on the new infrastructure. HTC Vietnam Technology Development, based in Hanoi, worked alongside Sao Bac Dau Technologies Corporation from Ho Chi Minh City.

In total, the companies installed 1,000 ports in the exchange building, which covers an area of 2,500 square meters with 10,000 square meters of floor area. Of these ports, 700 are copper and 300 are fiber.

A team of up to 20 technicians, engineers and planners was deployed to lay kilometers of GigaSPEED X10D cabling to make the 10G copper connections. To connect outlets where 10G performance was not needed, they installed nearly 9 kilometers of Category 6 GigaSPEED XL 1 Gb/s cabling. More than 140 iPatch panels were installed to connect and manage this cabling.

The finished infrastructure serves 200 exchange employees and, as well as the local area network, it connects CCTV and access control systems. Within the data center, the SYSTIMAX cabling connects servers with a storage area network.

During the project, installers not only had to meet the technical challenges, they also had to work quickly without any risk of disrupting the exchange's vital systems. The solutions chosen for the project allowed the BusinessPartners to meet all the performance, reliability and port density requirements; the quality of their work ensured a trouble-free installation. During the installation, CommScope engineers provided technical support, continuing the work they had done during the sales process.

On completion of the work, all CommScope infrastructures are tested and certified to receive the company's industry-leading 20-year warranty and application assurances.

Commenting on the project, Andy Low, regional sales director, ASEAN of CommScope said: "We were able to put together a combination of our most advanced solutions to make network infrastructure at the Hanoi Stock Exchange the equal of any in the world."

"The aim of the exchange is to strengthen and invigorate the nation's financial system, and we think we have helped it to do that. The finished infrastructure is an excellent reference for the high performance, reliability and space saving that our solutions can deliver in data centers."

Everyone communicates. It's the essence of the human experience. *How* we communicate is evolving. Technology is reshaping the way we live, learn and thrive. The epicenter of this transformation is the network—our passion. Our experts are rethinking the purpose, role and usage of networks to help our customers increase bandwidth, expand capacity, enhance efficiency, speed deployment and simplify migration. From remote cell sites to massive sports arenas, from busy airports to state-of-the-art data centers—we provide the essential expertise and vital infrastructure your business needs to succeed. The world's most advanced networks rely on CommScope connectivity.

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