

HK tertiary institution deploys 10-gigabit ethernet network

Network management simplified to support media-rich applications *By*
Carol Ko
10 Mar 2009

HONG KONG, 10 MARCH 2009 – The Hong Kong Institute of Education (HKIEd) has deployed Cisco's high-speed network with 10-gigabit ethernet ports.

HKIEd is the first tertiary institution in the city to adopt the data centre solution for operational efficiency, intensive bandwidth capacity while simplifying network management and supporting media-rich applications.

The network solution is said to offer a greener, more innovative and effective learning environment for students.

Supporting tech initiatives

IT administrators in the education sector today face the challenges of managing more devices and increasingly complex networks with a variety of new applications. With the new data centre solution, HKIEd can protect its data centre resources, optimise its operations as well as support future growth in the user base and in technological initiatives on campus.

“ We strive to deliver state-of-the-art technology to meet the evolving needs of our students, staff and the community. Cisco's next-generation data centre solution helps us build power-saving, resilient and efficient networks while optimising network resource usage,” said Francis Fong, information technology manager of the office of information technology and services, HKIEd. “ This further solidifies our competitive position internationally through the high-bandwidth, highly available solution that connects everyone anywhere anytime.”

“ We selected Cisco because it has proven track record in the education sector that we believe will help us become a leading tertiary institute in the Asia Pacific region,” he said.

Data centre backbone

The backbone of the Cisco data centre solution deployed by HKIED comprises the Cisco Catalyst 6500 Virtual Switching System (VSS) 1440 and Cisco Application Control Engine (ACE) Module.

Cisco Catalyst 6500 Switches feature innovative VSS technology, enabling HKIED to simplify network complexity and to reduce switch management overhead, thus increasing operational efficiency and saving energy consumption.

The solution also maximises the available bandwidth for the 10-gigabit ethernet ports in the network infrastructure to as high as 1.4 Tbps, providing the institute with massive capacity to accommodate media-rich applications over the network, as well as reducing the capital expenditure required to add capacity.

Netbooks for mobile learning

To prepare for the 3-3-4 education reform in 2012, of which tertiary education will be extended from three to four years, the institute has developed plans to support mobile learning by providing netbooks to all full-time students. It will also fully support multimedia e-learning applications, including high-definition video broadcast.

These innovative initiatives demand a quantum leap in bandwidth and capacity requirements. Cisco's Catalyst 6500 Switches next-generation data-centre solution offers a robust and future-proof network platform to power these innovations. The solution also prepares the institute to support IPv6 which is progressively adopted in academic and research networks, including the China Education and Research Network (CERNET/CERNET2).

Virtualisation capability

HKIED is the first local tertiary institution to deploy the Cisco Application Control Engine (ACE) with virtualisation capability. This helps HKIED to leverage virtualised architecture and role-based system administration to streamline the cost of rolling out, scaling, accelerating and protecting the application and Web service environment.

Through intelligent load-balancing and content-switching technologies, HKIED is empowered to scale its data centre resources to support bandwidth intensive applications such as multimedia e-learning applications. This enables students to access information and resources, encouraging greater interaction and ultimately, helping them accomplish their educational goals.

Tags: Networking