



KOLKATA'S PRESTIGIOUS PRESIDENCY COLLEGE DEPLOYS CISCO NETWORKING TECHNOLOGY TO ENHANCE ITS HIGH EDUCATIONAL STANDARDS

Customer Background

One of the leading educational institutions in India, Presidency College boasts of a long and illustrious history. Presidency College was established as Hindu College in

1817, in Calcutta, the capital of British India. It was renamed Presidency College and placed under the aegis of the University of Calcutta in 1855.

EXECUTIVE SUMMARY

Customer name

Presidency College, Kolkata

Industry

Education

Business Challenge

- Building a Campus Area Network
- Foundation for future programs such as e-classrooms

Solution

- Implementation of a secure, cost-effective, scalable, redundant Campus Area
- Network foundation for IPTV broadcast servers etc

Business Value

- Benefits of advanced, secure, unique technology to members of academic institution
- Scope for future growth and innovative learning programs

Recently Presidency College has been accredited as the A+ rated college in India by NAAC. Further, the College was ranked the number one liberal arts college by India Today in their 2006 survey.

Business Challenge

The overall aim of the engagement was to establish Presidency College as an all-round point of excellence using state-of-the-art, modular and scalable technology that could not only meet present needs but also future

ones. Specifically, the implementation of a highly secured, cost-effective, and redundant *Campus Area Network* that would be a pioneering model amongst Indian educational institutions. The whole project had to be implemented within tight deadlines as well.

As there was no existing *Campus Area Network* or proper IT infrastructure at Presidency College, some of the specific business challenges and requirements included:

- Connectivity between the various departments as well as buildings which should be redundant, expandable, and scalable using the latest technology and products
- Facilitation of fast data transfers, communication etc. between departments and buildings
- WAN connectivity for communication, knowledge and data transfers with other universities, colleges, organizations, researchers, students etc. across the globe. Easy access to the world wide web for information and knowledge gathering
- Creation of e-library wherein the library resource would be available to students, researchers, professors etc from other authorized universities, colleges, organizations etc
- Departmental mail access
- WLAN access at specified locations such as the principal's office, auditorium, conference rooms, guest rooms, e-classrooms
- Information kiosks that provide detailed information about the College's activities
- Establishing foundation for future e-classrooms or virtual learning

Solution

Presidency College selected *Forte India* for this project based on the System Integrator's reputation and expertise in the field of networking in the Eastern India. An ISO 9001:2000 Certified Total Solutions Provider and Systems Integrator, Forte India offers complete networking consultancy services, as well as design, supply, execution, testing & commissioning, site certification and more as per international standards. Forte partnering with *Cisco*, the worldwide leader in networking for the Internet was selected for this engagement with Presidency College for a Campus Area Network.

After detailed discussions with the College authorities Forte recommended that all the various departments be connected through the Campus Area Network. Other recommendations included:

- The network was designed in Ring Topology and structured cabling
- The backbone consisted of 12 and 6 Core Fiber Optic cable and the rest of the distribution with eCAT5 UTP cable
- Given the requirements, the 10/100Mbps bandwidth network was recommended with Cisco Active Components
- Sufficient redundancy had been designed for network safety as well as future expansion plans

SWITCHING: For the top of the network Forte recommended 4 Core Switches (CISCO 3750G) for administering the whole infrastructure. Further recommendations included 2 Distribution Switches (CISCO 3508) for the down level and 14 Access Switches (CISCO 2950 SX) for departmental connectivity.

WLAN: The College authorities wanted to create the whole campus as a Wi-Fi zone and keeping that in mind Forte proposed 4 Wireless Access Points (CISCO 1310g) spread across the College campus.

ROUTING: High end routers (CISCO 2811) were recommended not only for high bandwidth leased lines but also for future e-classroom being planned for a later stage.

SECURITY: Security was a major concern irrespective of the volume of the network. To make the network secured at the entry point, CISCO IDS 4215 had been proposed. In addition, PIX 5151E UR as the firewall, PIX 515E FO ensuring fail-over protection of the existing PIX 515E UR were recommended. To prevent the network from internal threats, CISCO SECURITY SERVER AGENT (CSA-B25-SRVR-K9) and CISCO VMS 2.3 WIN 20 DEVICE RESTRICTED (CWVMS-2.3-R-K9) were implemented.

Business Value

Commenting on the business benefits achieved, Dr.P.Dasgupta, Presidency College said, "Few organizations within the Indian academic sector have implemented this level of unique, advanced, and secure technology to be able to provide the best resources to members of our community. The products deployed are very advanced in the technical aspects and are also one of a kind in their respective fields."

The key feature of the engagement was the unique technology and products deployed. For example: the most vulnerable aspect of a network is network security and the deployment included advance technology to address all security related concerns. Simultaneously CISCO Intrusion Detection System IDS 4215 and CISCO Security Server Agent with VMS 2.3 were deployed along with other security devices. As a result the entire Campus Area Network of Presidency College is not only of high quality but also very secure.

The recommendations also laid the foundation for future deployments such as the implementation for IPTV Broadcast Server and more. It will be used mainly for e-Classroom or e-Learning. According to Mr Abhijit Kr.Sen, Forte India, "through the IPTV Broadcast Server of the college and EDUSAT programme of the UGC, all the important lectures of renowned academicians, important global seminars can easily be broadcast to the students and professors of the college. Simultaneously, important lectures of the existing and visiting academicians of Presidency College could be sent to interested people anywhere in world. This is an important precursor to future e-learning opportunities for the College and Cisco products and technology can make it possible."

Commenting on the engagement Mr U R Acharya, Vice President, Distribution and Reseller Channels, Cisco India & SAARC said, "our vision for Presidency College was to enable them to create value for their stakeholders and in particular for their students. Our partner Forte worked closely with the customer to understand the requirements and vision. Together we delivered a futuristic solution to our customer which we hope will serve the college for a long time to come and also aid in the advancement of the prestigious institution."