

Case Study

ANNA UNIVERSITY

Chennai, India

**Tele-education Lectures Over an IP
Network**



VCON
VISUAL COMMUNICATIONS

Background

Anna University was established on 4 September 1978. The university was formed by integrating the two well-known technical institutions in Chennai viz.: the College of Engineering, Guindy (CEG) and the Madras Institute of Technology (MIT) with the University of Madras' three technology departments and School of Architecture and Planning.

In May 1999, the Anna University KBC center (AU-KBC) was established by Mr. K. B. Chandrasekhar of Exodus Communication, USA and Anna University, with the goal of developing Internet and communications technology.

A Video over IP Solution

An IP network clearly best served the university's needs. ISDN is not common in India and is very expensive and V.35, while also costly, would not have been viable over the distances concerned. A packet-switched networked with an IP connection also enabled the link to be used for a variety of purposes: data transfer, conferencing and multimedia conferencing.

Since the main Chennai campus already had an existing broadband IP network, this simply needed to be upgraded with some high-performance components. A broadband network was installed in the MIT campus and a 2 Mbps leased line was used to link the two.

VCON's strong local representation was a major factor influencing its selection.

The Need for a Videoconferencing Solution

One of the AU-KBC's goals was to ensure ease of communication between the university's two disparate campuses, situated at a distance of 20 Km from one another. The obvious solution was to install a comprehensive videoconferencing application, linking the two campuses and enabling lectures given at one campus to be followed by students at both. In addition, most of the university's lecture halls are limited in capacity and by using group videoconferencing systems, many more students are able to attend important lectures. The videoconferencing system is also used for regular departmental meetings between University staff.

Why VCON?

VCON is represented by ITI, a leading Telecom company in India with over 27,000 employees and which provides 70% of the national telecommunications requirements. VCON's strong local representation was a major factor influencing its selection.

VCON's clear leadership in the provision of comprehensive video over IP solutions, its customer support program, virtually offering 24-hour support, 7 days a week, and its strong partnership with leading network vendors, such as RADVision, were all factors which were highly valued by Anna University in the selection process.

On the 7th of March, Anna University published a tender for the proposed

videoconferencing solution. After an evaluation period it also became evident that only VCON was able to match the requirements for key inherent Quality of Service (QoS) features, involving bandwidth management, jitter control, maximum possible lip synchronization and consistent performance in both LAN and WAN environments. VCON was also the only vendor capable of offering a system to secure videoconferencing sessions from unauthorized access and log on (VCON's TopSecret IP™ software).

RADVision

VCON chose RADVision as its networking partner for the project as RADVision's products, which include Gateways, MCUs and Gatekeepers, are an ideal and fully compliant solution for ANNA University's requirements.

"We were delighted to provide ANNA University with RADVision equipment, enabling the establishment of their first IP conferencing network," stated Adit Tevel,

RADVision Vice President of International Sales. "Together with our business alliance partner VCON and its reseller ITI, we are capable of delivering a full blown and total solution that benefits the customer. We look forward to providing our customers with continuous support when moving into the field of converged IP solutions."

Installation and Operation

On 24 March, the tender was awarded to VCON and by 31 March, VCON had begun shipping the equipment.

Phase 1 of the operation involved the installation of a wide range of VCON and RADVision equipment in each of the campuses. Six VCON MediaConnect 8000 units (IP + 1 BRI) were installed in lecture rooms with a capacity of 3 around 100 people each. An additional 7 MediaConnect 8000 units (IP + 3BRI) were installed in conference rooms, while 40 Escort 25 systems (IP-only) were used to provide desktop solutions.

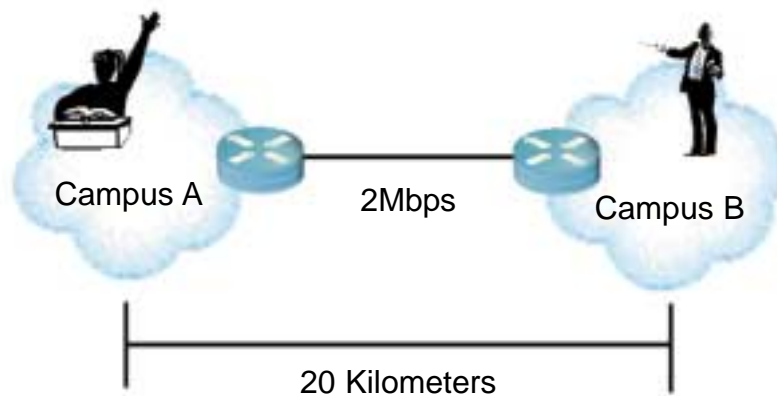


Figure 1: The obvious solution was to install comprehensive videoconferencing applications.

Two cascaded RADVision MCU's were installed, one in each campus, to maximize efficiency and minimize bandwidth use across the 2 Mbps WAN connection. This topology also means that videoconferences can be conducted locally between endpoints in each campus, without using any WAN bandwidth. In addition, one RADVision gateway was installed in each campus enabling video calls to be made to the WAN, and one RADVision gatekeeper (NGK100) was installed to control the entire network.

VCON's software-based encryption module, TopSecret IP™ was installed on all desktop units and one MediaConnect 8000 to ensure secure video, audio and file transfers. "We are very excited about the potential of our new videoconferencing infra-structure," stated Dr A. Kalanidhi, Vice-Chancellor of Anna University. "Equipped with this state-of-the-art technology we will be able to revolutionize the service we provide, extending our reach to a much greater number

of students and solving the current logistical problems inherent in having more than one campus."

"We are also very pleased with the high quality of VCON and RADVision's equipment and believe that this videoconferencing application will help make us one of the leading universities in India," he added.

"With the rising popularity of education by correspondence we are seeing an increasing interest in employing videoconferencing in the education sector worldwide" said Dayana Poller, VCON's Sales Manager for the Asia-Pacific region. "The Anna University videoconferencing application will enable the university to provide quality higher education to much of the Chennai region's widely dispersed population. In a country with an extremely large population and a thirst for education, Anna University is likely to become a role model for other Indian universities to follow."

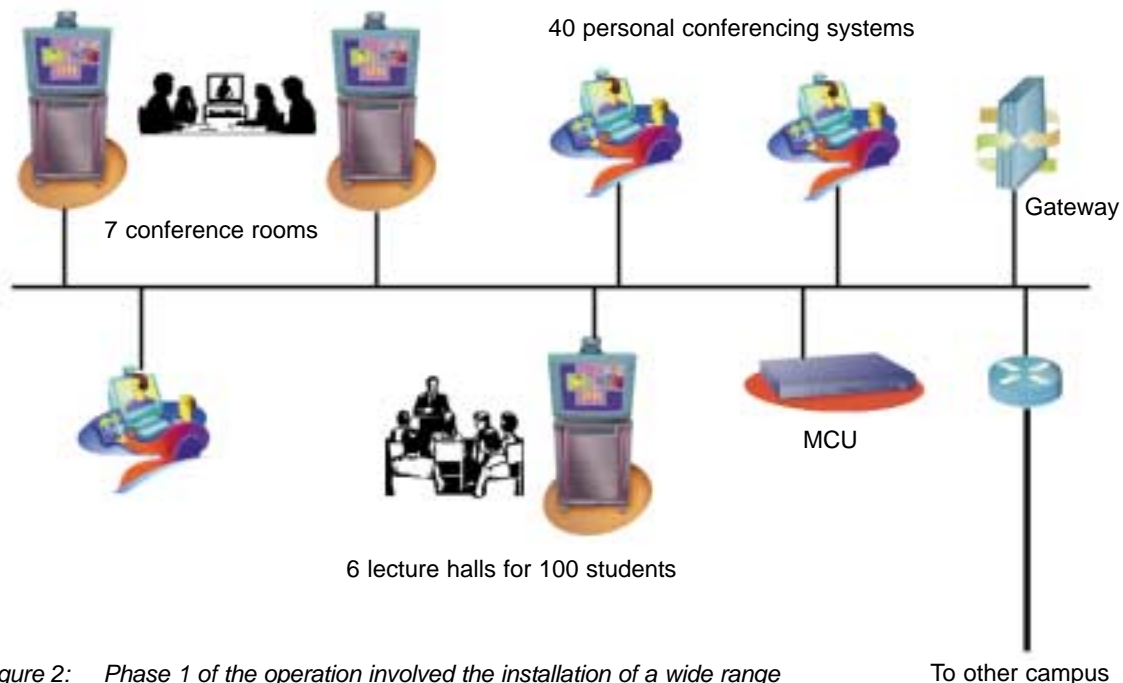


Figure 2: Phase 1 of the operation involved the installation of a wide range of VCON and RADVision equipment in each campus.

An Eye to the Future

It is expected that, in a second phase, individual departments within the university will purchase a range of personal and group conferencing systems, improving communication between departments and further extending the facilities available to students. In addition, the university hopes to be able to offer lectures by videoconference in distant cities and villages as part of the Web-based instruction program being promoted by the University.

"Equipped with this state-of-the-art technology we will be able to revolutionize the service we provide, extending our reach to a much greater number of students and solving the current logistical problems inherent in having more than one campus."

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