# KARUNYA UNIVERSITY MOVES TO THE TOP WITH ELECTRONIC LEARNING INITIATIVES SUPPORTED BY ARUBA

Karunya University in Coimbatore, India was established with the noble vision to cultivate professionals and leaders of high academic caliber and unblemished character, and imparting upon them a strong motivation and commitment to serve humanity.

The university has a specific focus on engineering and technology. Since its founding in 1986, Karunya University has met with quick success and is currently ranked among the top 15 private universities in India. A fully resident university, 7,200 students live in 11 campus hostels. The university also employs 430 teaching faculty and 220 support staff members.

## ELECTRONIC LEARNING DRIVES NEED FOR WI-FI

In keeping with its mission of developing outstanding engineers with leadership qualities at the national and global level, Karunya University has incorporated a number of electronic learning technologies into its curricula.

The university uses digital links and electronic slides in classrooms and lecture halls in order to stimulate collaboration and participation in the learning process. The learning experience also includes interactive learning exercises and computer-based training (CBT) activities, as well as an online multimedia library.

The increasing use of electronic learning technologies meant that the university needed to extend its wireless LAN (WLAN) to all classrooms and lecture halls. It also wanted to provide access in the student hostels and public areas to make it easier for students to complete their assignments.

## PERFORMANCE, MANAGEABILITY AND SECURITY

The university had a legacy WLAN consisting of Cisco fat access points (APs). However, the amount of time required to manage this network meant that it could not be expanded in a cost-effective manner. In addition, the existing network did not provide adequate security or bandwidth to support the new electronic learning initiatives.

## REQUIREMENTS:

- Replace legacy WLAN in order to improve performance, bandwidth and security in support of electronic learning
- Handle high peak loads generated by online exams
- Improve manageability so that minimal staff can effectively support a large, extended network

## SOLUTION:

- Aruba 6000 Mobility Controller
- Approximately 365 Aruba APs
- Aruba Policy Enforcement Firewall (PEF) for wired and wireless security

## BENEFITS:

- High performance and scalability that meets demanding classroom needs
- Significantly improved efficiency in management tasks, allowing the IT staff to manage a large network
- Improved security

*"We needed a wireless LAN that would sustain high levels of traffic while reliably delivering all packets in a timely manner. Aruba has met our requirements flawlessly.""*

**S. Benson Edwin Raj**
Assistant Professor
Karunya University

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Prior to selecting a replacement system, the university conducted a comprehensive technical assessment of three vendors. The process included a demanding functional test that evaluated each vendor's product stability, RF management capabilities, security, guest access, ease of use and cost effectiveness.

Aruba was ranked first in all categories and was selected for the project. Working with Aruba partner Transition Systems India, the university completed its deployment in early 2008.

## THE ARUBA SOLUTION

The Aruba solution consists of one Aruba 6000 Mobility Controller deployed in the university's data center, along with approximately 365 Aruba APs distributed throughout its 700-acre campus. Aruba's Policy Enforcement Firewall (PEF) is an important part of the solution, providing identity-based controls to enforce both wired and wireless security.

## MEETING THE DEMANDS OF THE CLASSROOM

According to S. Benson Edwin Raj, Karunya University's head-computer center and assistant professor, the performance and scalability of Aruba technologies were key factors in the decision to select Aruba.

"Our online exam system generates very large bursts of Wi-Fi traffic," he said. "We needed a wireless LAN that would sustain high levels of traffic while reliably delivering all packets in a timely manner. Aruba has met our requirements flawlessly."

## EFFECTIVE MANAGEMENT AND SECURITY

Network visibility and management were also critical to the university. The computer center has a four-person staff, and the university's experiences with its legacy network underscored the importance of being able to perform ongoing management tasks efficiently. IT officials from other universities that visit the Karunya campus have been impressed with the breadth of network services that the computer center staff is able to deliver to users.

Raj also cited the advantages of Aruba's Adaptive Radio Management (ARM) technology as a key reason for choosing Aruba. In particular, the university has benefited from:

- ARM's airtime fairness, which ensures equal access to the wireless medium for all clients, regardless of client type, capability or operating system.
- Active interference avoidance, which eliminates manual troubleshooting by the computer center staff.
- Client load-balancing, which is particularly important in congested areas such as lecture halls.

## ORGANIZATION OVERVIEW:

Founded in 1986, Karunya University is ranked among the top 15 private engineering and technology colleges in India. In the short span of its existence, the university has moved swiftly ahead to carve a niche for itself as an institution that promotes all around excellence. A co-educational, fully residential technological school, Karunya University takes great pride in imparting a holistic approach to education to develop the body, mind and spirit of its students.



Finally, Raj mentioned Aruba's security model — with multiple methods of authentication and multiple access levels — as a crucial enabler of electronic learning.

## EXPANDING PARTNERSHIP WITH ARUBA

The university is currently in the process of opening up a new campus that will also encourage student collaboration by offering an interactive curriculum and multimedia learning services. Powered by the Aruba WLAN infrastructure, the new campus will continue to build on Karunya's mission to develop outstanding engineering professionals with unmatched leadership potential.