

ISLAMIC UNIVERSITY IN MADINAH DEPLOYS WIRELESS NETWORKS FOR STUDENTS AND STAFF



الجامعة الإسلامية في المدينة المنورة
Islamic University in Madinah

To provide wireless services within and outside buildings for more than 12,000 students and two thousand staff members, with fast and easy deployments, at low cost

Universities in the Kingdom of Saudi Arabia are witnessing high growth in the number of enrolled students, which is highlighting the need for further infrastructure development and the construction of more colleges and facilities, along with the required services. However, since the deployment of conventional cable-based networks is highly expensive, and its maintenance requires much effort at high costs, some universities resorted to wireless networks to link students and staff to their systems, using high levels of safety and security, such as the Islamic University in Madinah.

Dr. Hatim bin Humaid Al-Dhahiri, Dean of Information Technology at the Islamic University, and in charge of the wireless connectivity project at the university, says most people are not familiar with the intricacies connected with this kind of projects. Dr. Al-Dhahiri says following directions from University President, His Excellency Dr. Mohammed bin Ali Al-Ouqala, and under supervision from the university's Vice President for Development, Dr. Mahmoud Qadah, the university adopted wireless connectivity to benefit more than 12,000 students and 2,000 staff members on campus, in addition to three distant locations for the university (the university has two main branches; in Al-Madinah and Makkah). The university's campus comprises 60 buildings, with a plan being developed now to construct 10-12 new buildings.

Wireless connectivity facilitates communication with the internal network or the Internet during the conferences and many events held at the university's various halls. Among the benefits of wireless connectivity for the university is that it enables staff members to receive incoming calls to the fixed telephone in his office wherever he may be. The calls are converted into a digital audio format which can be transmitted across a secure network, allowing a staff member to carry out his regular work from anywhere as if he was in his office. Moreover, students can easily use their own portable devices, such as laptops, mobile phones and tablet PCs, to carry out their work over the Internet. A user needs only to enter his user name and password to verify his identity, to benefit from the University's initiative, "Bring Your Own Device" (BYOD), that offer him fast and trouble-free access inside and outside the university's buildings. Additionally, the university has started to build two smart zones, in addition to planning more zones and expanded coverage.

PERFORMANCE, MANAGEABILITY AND SECURITY

Engineer Talal Mirza, secretary of the technical committee and networks engineer at the Islamic University in Madinah, explains that the university has adopted Aruba Networks' cost-effective solutions for wireless connectivity, which provided the university with the exact capabilities it needed for every situation and connecting wirelessly all the buildings according to the overall plan of the project. Upon the completion of every building, all its lecture rooms, conference halls and offices are connected wirelessly in record time at a low cost as compared with wire connectivity. Six months has passed on the project, with all buildings expected to be fully connected within 18 months.

Several important issues have to be addressed when building wireless networks. These include providing the necessary digital security and protection mechanisms, such as a Firewall system, monitoring websites accessed by students and staff, and installing robust antivirus system to protect the university's applications and hardware, in addition to a user identity verification system that enforces the policies and methodologies for the use of computers and applications for different users.

MEETING THE DEMANDS OF THE UNIVERSITY

Among initial challenges that faced the team in charge of implementing the wireless solution was migrating the university's legacy system into the wireless platform, with existing computer systems lacking support for wireless network cards. However, technicians at the university and engineers were able to handle the challenge with relative ease by uploading software that identified wireless cards which were supported by some of the computer systems, while computers that were too old to have any kind of support were replaced with new ones that supported wireless network cards.



Commenting on the use of wireless networks, Engineer Ammar Enaya, General Manager Middle East and Turkey at Aruba Networks, says the adoption of wireless technologies at universities facilitates expansion and the offering of more innovative services to its staff and students at much lower costs than connecting buildings with network cables – not to mention the relative speed at which work can be completed and the higher levels of security provided. He says wireless solutions enable students and staff to bring their personal devices to campus and use them in a safe, practical and comfortable manner that allows the devices to be registered, monitored and prevented from accessing harmful websites.

EXPANDING PARTNERSHIP WITH ARUBA

Engineer Enaya points out that the Islamic University in Madinah will use virtual private networks (VPNs), which provide high security for data transfer through encryption technologies. The wireless solution will also be supported by Remote Access Points (RAP), ClearPass Access Management, and AirWave Network Management solutions. The university is also working closely with the company developing the technology to deploy POP solution for AmigoPOD in order to offer the university's visitors and guests secure Internet access. The university currently uses 105 Series internal access points to cover the university's buildings internally, while 175 Series is used for external access points to cover the university's external locations, with Aruba 3000 Series Mobility Controllers are used, followed by series 6000.



www.arubanetworks.com

1344 Crossman Avenue, Sunnyvale, CA 94089

1-866-55-ARUBA | Tel. +1 408.227.4500 | Fax. +1 408.227.4550 | info@arubanetworks.com