

# UNIVERSITY OF MALAYA UPGRADES CAMPUS-WIDE NETWORK WITH H3C SOLUTION



## Overview

The University of Malaya (UM) prides itself on its status as Malaysia's first university. Established in 1962 in Kuala Lumpur with a heritage that dates back to 1949 in Singapore, its 309 hectare campus serves more than 27,000 local and international students.

UM set up its campus-wide network in 1996, and enhanced it several times over the years, until a major upgrade in 2008 when the university replaced its core and workgroup switches with the latest solutions from H3C.

## Challenge

The rapidly growing user population of 27,000 students and 2,200 academic staff require ubiquitous access to campus resources. This, coupled with increasingly bandwidth-hungry applications, meant that the campus-wide network had to keep up with both current and future demands. "Our 10-Gigabit multimode fiber cables provide big enough 'pipes', but we needed to upgrade the switches to make full use of this bandwidth," explained Ng Teng Hong, Information System Officer at UM's Center for Information Technology.

### CUSTOMER NAME/LOCATION:

University of Malaya, Kuala Lumpur, Malaysia

### FOUNDED:

1949

### INDUSTRY:

Education

### STUDENTS/ACADEMIC STAFF:

27,000 students/2,200 academic staff

### VALUE-ADDED RESELLER:

PremiseNet Systems

### APPLICATIONS:

Internet & Intranet Communications, Email, Networked Educational and Administrative Applications

### GOALS:

Improve bandwidth and network access

### 3COM SOLUTION COMPONENTS:

H3C® S9508 10GE Multi-services Core Routing Switch

H3C S7506R (10GB module) multi-service Switch

H3C S7503 multi-service Switch

### RESULTS:

Better network performance; Increased network stability and reliability; Capability to introduce other IP-based services

H3C®

3COM



TippingPoint®

## The Solution

### WHY 3COM

UM had been using 3Com® H3C switches since 2005, albeit at the workgroup level, and had been upgrading them incrementally through chassis-based upgrades. “We have studied the performance of our H3C switches over the years, and we’re very comfortable with their price performance and reliability,” said Ng. “This has given us the confidence to undertake the major upgrade with H3C solutions.”

### KEY BENEFITS

Ng’s confidence in the reliability of the H3C switches was borne out both during and after the upgrade. “The campus network is now very stable, with no interruption of service and minimum downtime,” he said.

The original goal to deliver more bandwidth has been achieved by simply upgrading the core switches in the segments to support the bigger 10-Gigabit capacity. With the upgrade, the campus network has more than 3,000 Gigabit ports.

## Looking Forward

The new upgraded infrastructure, with its attendant benefits, will enable UM to introduce new network services. Some will be visibly noticeable. One example is IP cameras that will be deployed across the whole campus to improve security and surveillance. Another is video recordings of lectures, which students can access on-demand.

Other, more technical upgrades, will be realized through improved access and better network performance. One such improvement is the network’s support for MPLS (multiprotocol label switching), which will provide a whole new set of management functions, including class of service, network traffic control, and others.

Another direction will take UM into Layer 3 switching. “Our new H3C S9508 core switch also supports Layer 3 functions that will help improve the performance and reliability of our network,” Ng said. “Layer 3 switching and routing ensures that all our important packets of information between the Web servers and the Internet have the fastest possible route and no slowdowns. Since all ports are connected to all other ports, there is no point of failure.”

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Ng Teng Hong, Information System Officer,  
University of Malaya

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