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Nasser Al-Kindi  
Computer Specialist  
Nizwa College of Applied Sciences

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#### At a glance

Country: Oman  
Industry: Education  
Founded: 1994  
Website: [www.nizwa.cas.edu.om](http://www.nizwa.cas.edu.om)

#### Challenge

Nizwa College of Applied Sciences was spending considerable resources maintaining its 700 PCs and laptops. It wanted to migrate to a virtual desktop infrastructure (VDI) to simplify management and reduce costs.

#### Solution

It partnered with Fujitsu and Cutter to deploy a VDI solution with VMware Horizon View Standard Edition running on Fujitsu PRIMERGY servers and Fujitsu ETHERNUS storage, operating 500 Zero Clients.

#### Benefit

- Devices can now be managed from a central console, reducing incident resolution times and removing the need for manual intervention
- Application performance has improved while near instant log-in increases productivity
- Zero Clients make less noise for a quieter classroom and by using less electricity and AC, bills have been cut by 25 percent
- The lifespan of user devices has doubled, lowering technology investment costs



## Customer

Nizwa College of Applied Sciences is a leading university college and an academic institution that aims to achieve progress in the areas of science, culture and thought. It works to enrich human civilization and expand the horizons of human knowledge, contributing to the achievement of economic and social development in the Sultanate of Oman. The College is located in Al Dakhiliya Region in the Wilayat of Nizwa and started receiving students in the academic year 1994/95.

## Products and services

- 8 x FUJITSU Server PRIMERGY RX2540
- 1 x FUJITSU Storage ETERNUS DX200
- 500 Zero Clients
- VMware Horizon View Standard Edition
- Microsoft Windows 10

## Challenge

Nizwa College was using a typical desktop environment in its labs: over 700 physical machines from numerous vendors, each of which had to be individually imaged and maintained. Unsurprisingly, this proved to be a significant burden on the nine-strong IT team.

"Getting the PCs up and running before each semester was exhausting because we had to touch each machine using Flash cards or CD-ROMs to download the appropriate image," explains Nasser Al-Kindi, Computer Specialist, Nizwa College of Applied Sciences. "It might take us four days to complete a single lab which is a significant drain on resources. We knew there must be a smarter way of managing our desktop estate."

The college decided that introducing virtualization to the desktop was a potential solution, however, the IT team had its concerns: "Having a virtualized desktop infrastructure (VDI) where everything lives on the servers in the data center seems risky, however, Fujitsu gave a presentation on how to deploy a VDI using VMware that allayed our fears," adds Al-Kindi.

This encouraged Nizwa College to run a Proof of Concept trial using Fujitsu hardware after experiencing failed pilots with other vendors that couldn't deliver. Fujitsu also introduced the college to Cutter. Founded in 2005, Cutter is one of the leading suppliers of virtualized desktop computing solutions. Headquartered in the UK but working across EMEA, it delivers VDI expertise to both customers and other technology companies.

## Solution

The first step was for Cutter to install the physical servers and storage, consisting of eight Fujitsu PRIMERGY RX2540 servers and one Fujitsu ETERNUS DX200 storage array. ETERNUS DX200 takes the role of hosting master images and management layer, all the workload and IO boot storm are managed by the internal PCI Flash card in each server. The college also bought 500 Zero Clients to supplement its existing PC estate and upgraded its network to CAT6 cabling to cope with the increased traffic.

"It took Cutter ten days to implement the VDI solution and, after testing it with five Zero Clients, we were satisfied it was ready to go," continues Al-Kindi. "The Fujitsu hardware in particular was easy to install and get up and running."

The servers are equipped with Blaze and Apex cards for graphic acceleration as well as Nvidia graphics cards. This ensures that they can handle the demands of processor-intensive tasks such as 3D CAD rendering and applications including Maya, AutoCAD and Adobe Creative Suite.

"We focus on applied sciences here so our students need access to the latest and most demanding applications," remarks Al-Kindi. "Traditional VDI set-ups might not be able to cope with 3D rendering but, by adding additional graphical resources, we have ensured a seamless performance across the network."

## Benefit

Al-Kindi can now manage every device centrally from his own desktop without the need to visit the lab for maintenance tasks. This saves the IT team a huge amount of time and means problems can be resolved much more quickly.

"Beforehand, if there was an issue, we would have to wait until classes had ended to sort it out, which could take up a day of our time," says Al-Kindi. "Today, when there was a problem, with one device, I log into the Fujitsu console from my own office and resolve it in ten minutes."

The college has also been impressed by the performance delivered by the Fujitsu hardware platform and the near instant log-in capability. Using standard laptops, teachers were having to wait ten minutes for everyone to boot their machines. Now, every student is ready in 30 seconds, enabling a more productive learning environment.

"It's also a better learning experience because the Zero Clients produce much less ambient noise unlike the old devices with their noisy fans," comments Al-Kindi. "And we don't need to use the air conditioning to lower temperatures, which is saving us 25 percent on our electricity bills."

Additional savings will be made by the extended lifecycle of the Zero Clients. Whereas laptops tended to be replaced every three years, Al-Kindi expects to at least double that lifespan, reducing investment costs significantly. Moreover, the college anticipates further cost reductions through the deployment and operation of the virtualization concept in the data center.

The success of this VDI project has encouraged Nizwa College to explore other areas of the organization where Fujitsu could help. It has already deployed Fujitsu laptops to the IT lab and is now planning a move to a virtual server environment.

"Our physical servers could fail at any time but moving to a virtual solution gives us the resilience we need as well simplifying application provision. Personally, I will choose Fujitsu to assist us on this journey. I trust the Fujitsu brand. Together with partner Cutter, it has given us a flexible, cost-effective and reliable VDI platform," concludes Al-Kindi.

## FUJITSU

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