Little more than a year ago, East Preston Islamic College (EPIC), a school catering for students from Foundation to Year 12 in Melbourne’s northern suburbs, realised that it needed a major overhaul of its IT network. Systems Administrator Bassam Farache explains, “Curriculum-wise, everything was moving online, but our ICT infrastructure was very restricted, we really couldn’t move forward so we were being left behind... we were still stuck, I guess, in the Dark Ages.”

The school, which caters to students from 24 different language backgrounds, had no wireless network, a handful of standalone servers and limited hardware for its staff and 500 students. In order to bring EPIC into the 21st century, Farache engaged the services of ICT solutions company Computelec.

Established in 1987, Computelec develops ICT solutions customised to the needs of each school client. Their vision, “For every child to have access to their own personal portable computer to enable anywhere, anytime learning,” (Computelec, 2013) encapsulates a philosophy that is rooted in the experience of the end-user, a detail that was not lost on Farache: “...one of the main things that attracted me [to Computelec] was the fact that they deal only with education and not business. While ICT can somewhat be similar, for school you do need a more specialised approach and, with Computelec working only in education, it was an attractive option to go with them.”

Although Farache had a rough idea of what he wanted to achieve, the initial consultation process opened up a whole new avenue of possibilities. “I thought I had it in my head a view of what we wanted to do and it turns out I was way off because there was so much more [that we could do] that I had absolutely no idea about,” Farache says. The solution negotiated with Computelec included installation of a Meru wireless network with 60 relay access points. Virtualisation of the infrastructure was achieved with VMware products, which handle all the virtual servers, a move which will cut costs in the long term, as well as simplifying the server environment.

As the project brief expanded, the issue of cost also had to be more carefully considered. “When we first met with Computelec we set a budget which was quite small I guess, and by the end of it, it grew out a whole heap and they did the best they could to accommodate us,” Farache acknowledges. Computelec suggested that the school seek additional funding through HP Finance, a move that the EPIC Board approved after the scope and benefits were presented to them. “I explained that rather than looking at

Computelec makes an EPIC difference

East Preston Islamic College educates 500 students from 24 language groups. A new ICT system has lifted the school out of the ‘Dark Ages’

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it as a short term investment, it’s a long term investment with massive, massive advantages and so once they understood all of that, they were happy to go ahead."

During his early conversations with Computelec, Farache identified redundancy as one of the key issues for the school and a solution was agreed that would ensure stability of service if one of the two servers encountered a problem. "We have two servers which talk to each other all day and if one of them wants to go down, the other one would pick up the slack and no-one in the school would notice and everything would continue running." The two fibre-connected servers are located in different areas of the school.

The new environment allows students and staff to connect to the EPIC network using their own devices, an innovation that has taken some getting used to. "Because... the students really haven’t been able to use such technology, the uptake has been slow, but it is happening. They’re starting to realise that there is this technology in the school and they can take advantage of it," Farache explains.

The school’s staff has been quicker to embrace the new technology, spurred on by improvements in access to the reporting system. While in the past teachers were only able to complete their reports on site during school time, they can now install the school’s reporting program on a laptop and access and synchronise data with EPIC’s server from home. "A lot of our teachers find it very beneficial to get their reports done at a time that suits them rather than during school hours, as it used to be," says Farache.

The advantages of being able to connect via a Virtual Private Network (VPN) to the school’s server extend well beyond reporting. Files can now be viewed and edited remotely, giving teachers greater flexibility in how they approach...
their planning. Emailing can also be done from home. Students do not currently have remote access but this may be considered down the track.

With greater accessibility comes a greater risk of security breaches, and this is an issue that Computelec addressed with Farache. “Security is paramount,” he stresses. “It’s probably number one on the list when it comes to any network design or upgrade and, being a school, there’s a handful of students who like to try and get around the system... since the upgrade we’ve had zero issues in that sense, either from a student trying to do something or [anyone] outside.”

EPIC chose Fortinet as a Unified Threat Management (UTM) system integrating their firewall and internet security. The system takes care of content filtering to ensure that students do not go on inappropriate sites while at school, as well as the VPN connection.

To ensure that things continue to run smoothly, EPIC also entered into a 12-month support service contract with Computelec, which includes remote monitoring of the school’s system.

“The support services makes my job a million times easier,” Farache says. “When it was managed in-house, I was running around all over the place trying to keep everything up and running. Servers were breaking down and the network would stop working. The new infrastructure has made things so much easier for me; the network is running flawlessly.”

In a relatively short timeframe, EPIC, has laid the foundations for a technologically-rich future for the school, its staff and students. As Farache observes, “At the end of the day it’s all about the students. I’m very happy with where we’re headed and with what we’ve been able to achieve so far.”

Further reading