



Allied Telesis Make Light Work of Network Management for College

Penola Catholic College in Australia reduces the cost and complexity of its network with an Allied Telesis Management Framework™ (AMF) solution.

Summary

Penola Catholic College

Industry: Secondary education
 Location: Melbourne, Australia
 Founded: 1995

Challenge

The 3Com core switch serving the College's junior campus had reached its end of life, and was no longer reliable. Furthermore, the core switch at the senior campus was aging fast. The College needed to redesign their network in the most efficient and cost-effective way possible.

Solution

A high availability, high density and high performance Allied Telesis SwitchBlade® x8112 Layer 3 chassis switch now serves the senior campus core, while the replaced switch now serves as the core switch at the junior campus.

Success

Thanks to Allied Telesis and systems integrator Honeylight Consulting, the College have completed a clever network redesign, which maximizes their network performance and minimizes their costs—both now and into the future.

Penola Catholic College is a coeducational secondary school in Northwest Melbourne. Approximately 1,600 students attend the College, which is divided into two campuses that are spread across a total of 27 acres. The Glenroy Junior Campus caters for 500 Year 7 and 8 students, and more than 1,000 Year 9 to 12 students attend the Broadmeadows Senior Campus.

Two campuses and 2,000 devices

A team of six in-house IT staff manages the College's extensive IT infrastructure, which includes a fiber network, a core switch at each campus, 30 edge switches, around 30 virtual servers, 30 Terabytes of storage, close to 1,800 laptops and a further 200 or more assorted devices. In addition, there's a one Gigabit wireless connection that joins the two campuses.

In 2012 the College's Information and Communication Technology (ICT) Manager, Anthony Austin, initiated a project to upgrade the aging core switch at the junior campus. After seven years of service, its dated technology could not deliver the functionality that the College now required, and network security had to be managed externally using a third party solution. Austin knew that to replace the switch would cost in the region of AUD\$70,000. However, he was also aware that within just a few years' time, he would need to replace the core switch at the senior campus, which was much more expensive and far more powerful.

Switching switches

After considering the situation, Austin realized that although purchasing a new switch to replace the unreliable junior campus core switch would resolve the immediate problem, there was an alternative solution that would deliver future cost benefits at the same time as strengthening the school's IT infrastructure. What if he moved the more powerful senior campus core switch to the junior campus, and purchased a new switch for the senior campus instead?

"The senior campus is where ninety percent of the server infrastructure is located. This makes it critical that we keep the main switches there up to date," he explained. "In three years' time our senior campus core switch will be six years old and pushing its limits in its current situation. By moving it to the junior campus, we should quite easily get another six years out of it, because the load is greatly reduced. This solution also gave us the opportunity to update to new technology at the senior campus, which will save us a lot of time and money in the future."

“AMF’s configuration backup and recovery capabilities mean that if we ever have a failure with a switch, we can just drop another Allied Telesis switch in there, and within minutes it will have loaded up the config and the switch will be up and running.”

Mr Anthony Austin
Information and Communication
Technology (ICT) Manager at Penola
Catholic College.

The solution

The College’s IT partner and Allied Telesis systems integrator, Honeylight Consulting, recommended that the College deploy a high availability, high density and high performance Allied Telesis SwitchBlade® x8112 Layer 3 chassis switch at the senior campus network core. Honeylight also recommended gradually upgrading and replacing all the College’s edge switches with Allied Telesis equipment, in order to make the most of the school’s shift to a 10 Gigabyte fiber infrastructure.

Austin said, “Although we hadn’t worked with the brand before, I did my homework. Allied Telesis was being used in some tough industries and environments and this gave us confidence. The research proved that Allied Telesis were the right choice.”

Within six months of installing the core switch, Austin was delighted with the results. He said, “We completed just one change and one purchase, and we now have both our campuses back up to a very good level of service.”

Over the following few years, more than two-thirds of the College’s old edge switches were removed and replaced by the latest generation offerings from Allied Telesis.

Making it manageable

Shortly after the successful installation of the new switches, Honeylight and the Penola IT team deployed Allied Telesis Management Framework (AMF), which utilizes Software Defined Networking (SDN) technology. AMF allows the College to centrally manage the entire fleet of Allied Telesis switches autonomously, from a single device.

Austin commented, “The facility to use AMF was there as soon as we deployed the Allied Telesis switches. When we started to look at extra functionality, we could see that using AMF would give us ease of management, as well as good insight into what was happening on the network at any point in time.”





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About Allied Telesis

For nearly 30 years, Allied Telesis has been delivering reliable, intelligent connectivity for everything from enterprise organizations to complex, critical infrastructure projects around the globe.

In a world moving toward Smart Cities and the Internet of Things, networks must evolve rapidly to meet new challenges. Allied Telesis smart technologies, such as Allied Telesis Management Framework™ (AMF) and Enterprise SDN, ensure that network evolution can keep pace, and deliver efficient and secure solutions for people, organizations, and “things”—both now and into the future.

Allied Telesis is recognized for innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.

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Centralized disaster recovery

The AMF software is monitored and managed by Honeylight, as part of its support commitment to Penola. As David Matthews, Honeylight Technical Consultant, explained, “AMF allows us to remotely manage our fleet, and provides us with the ability to make changes or resolve problems quickly. We can run a command across the entire network at once. We can ask questions of the switches remotely, a task that would normally have required me to log into each one individually. It’s a powerful tool, especially when I’m in a rush, which is often.”

Matthews reports that the Allied Telesis switches require little time or attention. He added, “AMF has been a big part of making this possible, because it allows us to push out changes and commands across the network in minutes. In the past, the same changes used to take up to a day, because we had to manually configure each and every switch.”

Austin believes AMF has also given the College a far greater ability to respond to network failures or disasters. In a school environment, where any downtime can be disastrous for teachers and students, this ability to quickly recover is essential.

Performance in a punishing environment

Austin said, “We run the phone system over the base data network. We use video conferencing—internally and externally, using Microsoft Lync. There are all kinds of applications and demands.

“School can be a punishing environment for a network. We have 1,600 teenagers who want to test the limits of everything. With the Allied Telesis switches we have created tight security, by separating the student and administration networks, thus restricting what students can access.”

Austin is confident that Allied Telesis allows the College to get the most out of its network, and has delivered significant savings to the school. “Honeylight helped to achieve this with their knowledge, and their ability to recommend network changes and products. The Allied Telesis switches they recommended simply work,” he concluded.



NETWORK SMARTER

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