Penola Catholic College

Penola Catholic College, in Melbourne Australia, select an Allied Telesis network solution for cost effective reliability and performance.

Success Story
In 2012, Penola College decided a network upgrade was a necessity - the core switch that served their junior campus was becoming unreliable, and was due for replacement.

**The network: two campuses and 2,000 devices**
Penola Catholic College has an extensive IT infrastructure, which is managed by a team of six in-house IT personnel. It includes a fiber network, a core switch at each campus, 30 edge switches and a similar number of virtual servers, 30 terabytes of storage, close to 1,800 laptops and another 200 or more assorted devices. In addition, there is a one Gigabit wireless connection that joins the two campuses.

**The problem**
In 2012, the IT team was preparing to replace the 3Com core switch that was serving the junior campus. After seven years of service, the switch could no longer be considered reliable and had reached its end of life. Furthermore, the old technology was unable to deliver the functionality that the College now required. For example, network security had to be managed externally using a third party solution.

**Switching switches**
Anthony Austin is the College’s IT Manager. Austin knew that a straight replacement of the junior campus switch would cost in the region of AUD $70,000. Furthermore, he was aware that in three years, he would also need to replace the much more expensive and far more powerful core switch at the senior campus.

Austin realized that although replacing the junior campus core switch would solve the immediate problem, there was an alternative solution that could deliver cost benefits and strengthen the school’s IT infrastructure. What if the College moved the more powerful senior campus core switch to the junior campus, and purchased a new switch for the senior campus instead?

**CUSTOMER PROFILE**
**Penola Catholic College**
Established in 1995, Penola Catholic College is a co-educational regional secondary school, serving the north-west region of Melbourne. Approximately 1600 students attend the College, which is divided into two campuses across a total of 27 acres. The junior campus, located at Glenroy, caters for roughly 500 Year 7 and 8 students, and more than 1,000 Year 9 to 12 students attend the senior campus at Broadmeadows.
“The senior campus is where ninety per cent of the server infrastructure is located. This makes it critical that we keep the main switches up to date. In three years our senior campus core switch would have been six years old and pushing its limits. By moving it to the junior campus, we should quite easily get another three years out of it, because the load isn’t there. And in the meantime, we had an opportunity to update to new technology at the main campus. It seemed the more beneficial solution.”

Mr. Anthony Austin
IT Manager Penola Catholic College

The decision made, Austin approach Penola IT partner and Allied Telesis systems integrator, Honeylight Consulting, to source the new switch.

“I first looked at replacing the switch with another one of the same brand that we already had, but there was no new model. I had to consider whether it was worth spending $120,000 to put the same switch model back in, or look for something else that was more advanced. Honeylight Consulting recommended Allied Telesis and although we hadn’t worked with the brand before, I did my homework. We could see it was being used in some tough industries and environments and this gave us confidence.”

The solution
Honeylight Consulting proposed a high availability, high density and high performance Allied Telesis SwitchBlade x8112 Next Generation Intelligent Layer 3+ Chassis Switch for the core. In addition, the company suggested gradually upgrading and replacing all edge switches with Allied Telesis equipment, in order to make the most of the school’s shift to a 10 Gigabit fiber infrastructure. It was a solution that would save the school money in the long run and, Austin says, “It seemed the right thing to do.”

Performance in a punishing environment
Six months after the new core switch was installed, Austin is delighted with the results. “We did one change, and one purchase, and we now have both campuses back up to a very high level of service,” he says.

“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,” Austin acknowledges.

“School can be a punishing environment for a network. We have 1,600 teenagers who want to test the limits of everything. Using the Allied Telesis switch, we’ve created tight security by separating student and administrative networks, and thus restricting what the students can get into,” he adds.

Austin is confident the switch replacement strategy has prolonged the life of the school’s hardware. “Honeylight Consulting helped to achieve this through their knowledge, and their ability to recommend network changes and products. The Allied Telesis switch that they recommended, for example, simply works. It’s reliable and we haven’t had any problems, which is important because the switch is critical for the school,” he concludes.
The Allied Telesis SwitchBlade® x8112 is a 12-slot Advanced Layer 3+ chassis switch designed to deliver high availability, wirespeed performance, and a high port count. Allied Telesis advanced features make it the ideal solution for the modern enterprise network where resiliency, reliability and high performance are the key requirements.

The SwitchBlade x8112 is a high-performing scalable solution, providing an extensive range of connectivity options. Dual control cards are partnered with ten line card slots. Gigabit and 10 Gigabit line card options ensure a system capable of meeting the requirements of today’s networks, and the flexibility to expand when required.

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Mr. Anthony Austin  
IT Manager Penola Catholic College
Active-Active switching fabric utilizes all available system bandwidth all of the time, and fast failover is provided with the second control card in hot-standby. The SwitchBlade’s highly resilient design includes dual controllers, dual PSUs and dual redundant passive backplane paths. The ability to hot-swap additional control cards, line cards and system or PoE power supplies guarantees maximum system uptime. The SwitchBlade x8112 ensures online resources and applications are always available.

The SwitchBlade x8100 Series switches are designed to reduce power consumption, and feature high efficiency power supplies and low power chip sets. An ECO Switch button on the front panel allows additional power conservation, and Energy Efficient Ethernet support ensures the SwitchBlade x8100 has some of the lowest per port power consumption in its class.

Features

» Allied Telesis Management Framework (AMF)
» Dual controller fabric slots and 10 line card slots
» High port density in a compact form factor
» Extensive Gigabit and 10 Gigabit connectivity options
» High reliability with dual redundant load-sharing PSUs
» Maximum uptime with all hardware hot-swappable
» Active-Active switch fabric
» Most eco-friendly chassis in its class
» Power over Ethernet Plus (PoE+)
» AlliedWare Plus™ feature-rich operating system
» Industry-standard CLI
» Industry-leading Quality of Service (QoS)
» EPSRing™ (Ethernet Protection Switched Ring)
» Access Control Lists (ACLs)
About Allied Telesis, Inc.

Founded in 1987, and with offices worldwide, Allied Telesis is a leading provider of networking infrastructure and flexible, interoperable network solutions. The Company provides reliable video, voice and data network solutions to clients in multiple markets including government, healthcare, defense, education, retail, hospitality, and network service providers.

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

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