Fast, reliable network supports a wide variety of services and educational applications

CASE STUDY

School Stats:

- Networking IT Staff: 1
- Users: 700 students, 64 faculty/staff

Industry:

- K-9 Education

Challenges:

- Build a reliable network to support proliferation of devices and applications
- Integrate network seamlessly with several different virtual servers

Products Utilized:

- BlackDiamond 8800 series switches
- ExtremeXOS™
- Summit X440 switches
- Summit X460 switches
- Wireless Access Points

Results:

- A superior user experience for students and faculty accessing academic applications at school or home
- A robust network backbone that will support school needs well into the future
- Easy to configure network combined with stellar customer support

Introduction

Opening its doors for the first time in 2013, Alamanda College, located in state of Victoria in Australia, is in the enviable position of building both school and network from scratch. The Victorian Government recently moved to allow schools to implement and maintain their own networks, which is a huge advantage for new schools such as Alamanda College.

Institution's Challenge

In her previous capacity as regional manager for 30 schools across Victoria, Alamanda Regional Network Leader Lyn Jobson had seen many institutions struggling to connect devices and maintain applications.

"Teachers have had technology in the classroom for years, but in many cases are being let down by an unreliable network. I've been teaching in the area for 25 years, and have seen plenty of schools let down by their technology. If devices and applications become unstable, teachers will stop relying on them," Jobson said.

"Most schools start with the absolute minimum of technology and build up from there, but here we've started the other way, with the maximum," said Jobson.

Extreme Networks Solution

When Alamanda College looked at implementing a state-of-the-art network to cater for 790 students and 64 staff, Jobson decided to focus on providing a high-end, stable core. The deployment of Extreme Networks Ethernet switches at the heart of the school's network paid dividends immediately, with a highly stable, flexible and secure backbone delivering high-end learning applications to the next generation of young Australians.

Nearly 700 students at the school have their own devices connected to the network, the majority of which are iPads and Macbooks. Each Wireless Access Point (WAP) supports up to 15 devices, with a further 50 IP nodes spread throughout the school. The network also supports 35 highly configured IP security cameras protecting critical assets and property.

"Everyone who sees it is impressed, but what they don't see is the back end. We all know that if the foundation is not right, the house will fall down," said Jobson.

Through trusted local partner Unity Computing Services, Alamanda College deployed an Extreme Networks BlackDiamond 8810 fabric Ethernet switch at the core, with a mix of Summit X460 and X440 switches for the backbone. All the infrastructure is on fibre cabling, with 10G redundant links and switches.

Tony Pace, a consultant with Unity Computing Services, was responsible for designing the architecture at Alamanda College. While his company had historically favoured Cisco or HP networking equipment, Pace followed a recommendation and trialled Extreme Networks' solutions.

"Extreme Networks' equipment delivered everything we needed during testing, and verified the company's capabilities. We find it a very reliable product. One of the key features of Extreme is that it is very, very easy to configure. Some competing brands almost require a brain surgeon, but Extreme is easy to implement and offers stellar service," said Pace.

Unity Computing Services now currently uses Extreme Networks equipment across 15 schools.

Results

With the Extreme Networks solution, Alamanda College is confident they have a reliable and simple to manage network in place that will serve students and faculty well into the future.

1. **Virtualization management.** As schools begin to deploy more virtual machines, Pace has found that the flexibility of Extreme Networks' operating system offered further benefits, integrating seamlessly across a variety of platforms. Alamanda College runs five multi-platform virtual servers including Windows and Apple, and found that these work seamlessly with the Extreme Networks infrastructure. "A lot of other vendors' virtualisation requires a proprietary operating system, but we run Apple and Milestone security systems with Extreme and they work very well together," said Pace.
2. **Flexible Operating System.** The ExtremeXOS system offered very granular visibility and provided visibility, security and network control through a single pane-of-glass, making the network very simple to manage and troubleshoot.
3. **Access to Academic Resources.** Extreme Networks provided a fast, stable network environment for students at Alamanda College, supporting a wide variety of services and educational applications across multiple platforms. Alamanda College has an online library, which all children can access from their iPad or personal devices at home. Printing services are also available through the school network, and each child has his or her own school email address. To enhance the students' learning experience, the school provides an exhaustive list of applications, including Mandarin language, oral language development and hundreds more.

Tony Pace concluded: "Extreme is easy to implement and easy to use, but best of all is the stellar service experience I have received. It is second-to-none, one of the best I have encountered over the past 25 years."

Extreme networks

http://www.extremenetworks.com/contact / Phone +1-408-579-2800