



## MAKING BYOD POSSIBLE

VERTEL DELIVERED CARRIER GRADE ETHERNET AND HIGH CAPACITY INTERNET SERVICES WITH STRICT SLAS AND QOS GUARANTEES TO ENABLE REAL-TIME COLLABORATION AND VIDEO CONFERENCING.

Luther College is an independent, co-educational secondary school located in Croydon, approximately 30 kilometres east of Melbourne. The school is proactive in its IT strategy, trialling its first notebook program as early as 1995.

At any one time the school has over 2,000 devices connected to its network, including 700 tablets and mobile devices along with its larger complement of laptops and desktops.

### THE CHALLENGE

Luther College has seen IT initiatives become an increasing part of the national curriculum and wanted to embed these across all areas of the school, allowing it to offer specialised subjects that are IT focused in addition to enabling students, teachers and parents to access what they want, when they want.

These forward thinking initiatives soon created a bandwidth demand that their incumbent 8Mbps ADSL link could not cope with.



LUTHER COLLEGE WANTED IT INITIATIVES TO BECOME PART OF THEIR NATIONAL CURRICULUM TO ENABLE STUDENTS, TEACHERS AND PARENTS TO ACCESS APPLICATIONS THROUGH BYOD DEVICES ANYTIME FROM ANYWHERE.





Luther required a network that would:

- Provide a reliable, high quality Internet service.
- Connect large numbers of LAN and mobile devices.
- Be highly scalable to cope with increasing bandwidth demands.
- Conform to SLA's and QoS standards for a real-time e-Learning environment.

## OUR APPROACH

Luther approached Vertel and a number of other service providers in September 2008 to determine the best long term solution to its Internet access problem.

As there was no cost-effective fibre alternative, our design team worked with Luther to scope out a microwave access network connection that provided fibre equivalent capacity and performance, but at a significantly lower cost and install timeframe.

In addition to providing reliable Internet access, our design had to ensure low latency for the Scholaris Portal and videoconferencing applications which were becoming increasingly important components of the college's real time e-Learning environment.

## THE SOLUTION

To meet with Luther's requirements, we installed a 20Mbps symmetrical Etherwave Access link delivered over microwave access and our MPLS fibre backhaul core. A Netconnect service was run over that link to provide unmetered and unlimited Internet access with 99.95% service availability coupled with strict performance SLAs.

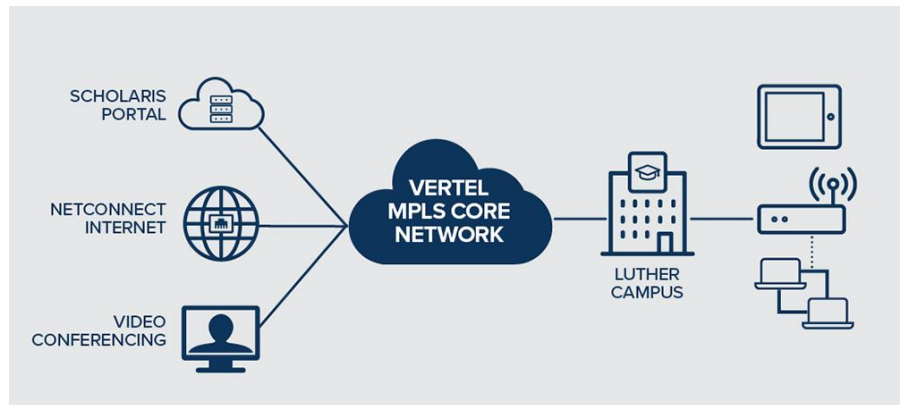
Easy scalability was also a key component to the design and solution due to the ever changing education space. Since that initial install in 2009 the school's needs have greatly increased as they proactively move to the latest e-learning initiatives. At the end of 2013 the link had been upgraded several times to 80Mbps capacity.

**“STUDENTS IN THE 21ST CENTURY ARE VERY MEDIA LITERATE YET LEARN IN DIFFERENT WAYS – THE ADOPTION OF ICT INNOVATION HAS HELPED STUDENTS THAT ARE MORE TACTILE OR VISUAL LEARNERS GET A BETTER GRASP ON SUBJECTS, BY USING TECHNOLOGY (SUCH AS AUDIO AND VIDEO STREAMS) STUDENTS CAN BE TRULY INTERACTIVE IN THEIR LEARNING. ”**

**Chris Topp**  
CTO  
Luther College

IN ADDITION TO RELIABLE INTERNET, THE NETWORK HAD TO ENSURE LOW LATENCY TO SUPPORT SCHOLARIS PORTAL AND VIDEO CONFERENCING APPLICATIONS.

- HIGH PERFORMANCE IP TRANSIT DELIVER OVER MICROWAVE ACCESS AND MPLS FIBRE BACKHAUL.
- FULLY MANAGED AND SCALABLE.
- STRICT SLAS AND QOS PERFORMANCE GUARANTEES.
- LOW LATENCY TO SUPPORT REAL-TIME COLLABORATION AND VIDEO CONFERENCING.
- 24/7/365 SUPPORT.



## THE RESULTS

The Netconnect Internet service has positioned Luther College at the forefront of 21st century learning. The Scholaris Portal provides real-time collaboration between teachers, students and parents and students now have access to vast range of technologies including video conferencing, proprietary educational and open-source software, multimedia and email in addition to resources including the College's Intranet, library and learning management system.

The Netconnect service has enabled the College to exploit wireless connectivity across the campus and many classrooms are equipped with data projectors to focus and showcase classroom learning in addition to exploring the benefits of tablet computing, interactive whiteboards and mobile technologies.

The network which has exceeded expectations is now the foundation stone underpinning Luther College's vision and philosophy of "Greater care. Greater learning."

## ABOUT US

We are an Australian licensed telecommunications carrier specialising in the design, build and operation of next generation critical communications network infrastructure and associated services. We have over 40 years' of experience delivering critical network services to Government, Enterprise and Service Provider organisations. We specialise in delivering carrier grade and alternate telecommunications infrastructure in non-metro, regional and remote Australia.

We have offices across the country with a national network operations centre (NOC) in NSW that proactively monitors our networks 24/7/365.

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