

Case Study

**The MikroTik Academy
The Gordon Institute of TAFE - Geelong**

Serving 20,000 students across three campuses The Gordon Institute of TAFE has been providing vocational training to students from Geelong and Western Victoria since its foundation by foresighted civic leaders in 1888.

With the establishment of Australia's first MikroTik Academy - in partnership with local MikroTik distributor Duxtel - The Gordon now offers MikroTik accreditation within its popular Certificate and Diploma ICT courses.

"Victorian TAFE's in particular are committed to practical ICT training via the integration of vendor accreditation programmes into courses" says the Institute's Program Manager for Information and Communications Technology, Steve Gale.

Students graduating with a Certificate III in Information, Digital Media and Technology (Networking) will typically be using their skills to provide IT support in schools and small businesses where Steve admits "cost is always a factor". "With other vendors, several pieces of equipment, such as a router or access point - must be interconnected to provide a solution. With MikroTik the router and WiFi functionality is tightly integrated within a single piece of equipment."

Gordon ICT students are no longer training on consumer WiFi routers but are learning how to plan, manage and secure wired and wireless networks using twenty RB951 wireless routers in an attractive modern laboratory. According to Steve "if the NBN is to deliver on its promise of providing real teleworking opportunities in regional areas then households are going to need more sophisticated equipment than what is available at OfficeWorks. They need hardware that can support robust VPNs and remain stable with larger NAT tables."

In the more advanced Diploma level courses he adds that students are able to "leverage the additional functionality of the RouterBoards by creating VPNs and implementing 802.1x and RADIUS authentication".

Computer Systems Engineering teacher Helen De Lange explains that "Some students' learning style is better suited to working through problems at their own pace at home while others are keen to do extra revision which is difficult to organise as the labs are fully booked". To respond to these student needs Helen has met success in her experiments with running MikroTik RouterOS on a virtual machine within Oracle VM VirtualBox. Steve adds that this virtualisation is a step towards "eventually providing all resources via distance learning to free The Institute's growth from the inhibition of its physical location". He adds that by "running RouterOS in a virtual environment students can practice router configuration using Winbox and create more complex scenarios in which Windows and Linux virtual servers and desktops are networked via RouterOS to simulate the management and configuration of enterprise infrastructure".

This year Helen is looking forward to exploring the potential of MikroTik's free network visualisation tool 'The Dude' to give students' deeper insight into complex real-world enterprise level network architectures such as the local Geelong Community Info Net of which the Institute is a stakeholder. This has the potential to give Gordon ICT students practical realtime insight into operating and securing a complex live public wireless network.

Terence Anderson, a graduate of the 2013 course and owner of a Geelong software development and IT consulting company, undertook the MTCNA as part of his Advanced Diploma in order to expand his skill set and earning potential. While he saw room for improvement in the English translation of some course materials he "can't speak highly enough of the MikroTik hardware - it's fast, powerful and flexible". Upon graduation he immediately upgraded his office routers to MikroTik RouterBoards.

Classmate Alen Orsolich, a recipient of the ICT Department's Exceptional Student of the Year award, enrolled to gain "a more hands-on education than was offered by the Uni's" as he re-trained in IT following retirement from Victoria Police as a result of a workplace injury. Like Terence, Alen found the course challenging but enjoyable and "could not fault either the MikroTik software or hardware. It was a pleasure to use during training and much better than a command line interface". Alen found himself "particularly impressed by the hotspot and transparent web proxy features of the RouterBoard".

As this resilient regional city looks increasingly toward its strengths in knowledge and innovation the availability of the practical ICT skills of MikroTik Academy graduates like Terence and Alen has never been more important.



Project Partners



MikroTik products are ideal for the small to medium businesses that drive Geelong's economy. They provide power and configurability at a much more affordable price.

- Steve Gale