



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

ADVANCED SMS FITS INITIATIVES

As Canada's premier polytechnic institute, the British Columbia Institute of Technology (BCIT) is known for giving students job-ready skills they can use immediately after graduation. BCIT is an institute that has campuses of varying sizes all over the province of British Columbia, Canada. It has five major campuses in the Metropolitan area of Vancouver, Canada's third largest city.

The largest of the campuses is in Burnaby with over 40 buildings on this campus, ranging from the boiler house to its high tech research facilities.

When Glen Magel, Director of Safety & Security, started at BCIT's Burnaby campus over eight years ago he found a campus without any central control of a myriad of different security systems. The various departments and Schools were responsible to pay for their own security systems and without any previous mandate from the Security department had installed whatever they saw fit.

Challenge

Theft of Institute property was a serious problem in several departments. The managing of keys was becoming a nightmare and trying to respond to alarms from the various systems was daunting and increasingly expensive. The challenge was how to improve the overall security at BCIT as a whole and bring the numerous systems under central control.

The Beginning

Prior to Magel's arrival at BCIT, the Computer Resources (CR) department had installed a Symmetry Security Management System (SMS) that had proven to be very effective in dealing

with access control issues. The Computer Resources (CR) department houses the Institute's mainframe computers, network infrastructure and the support services for all of the campus' PCs. By controlling access into the area, thefts in the department were the lowest on campus.

A research department had recognized the benefits of the system in CR and piggy backed on to it via modem communication. Shortly after his arrival at BCIT, the CR department approached Magel to take over the management of the research department's security needs.

RAMP Enterprises' Tony Gojevic, is a certified reseller of the G4S Technology line of Symmetry™ products and has worked closely with Magel over the last several years to insure a smooth migration of the Symmetry SMS at BCIT.

After reviewing the success and the additional features available in the Symmetry system, Magel decided it was a system he could use to bring central control of card access and alarm monitoring into the Security department where it belonged. He had RAMP install another software system in the Security department and took over management of the security system at the research department.

From its humble beginning of one workstation and six readers in a single department, the Symmetry SMS has grown to encompass many of the Institute's security needs. Currently the system has grown to include the following:

- Symmetry Enterprise
- Dedicated SQL database server with over 80,000 cardholders



Symmetry allows us to run multiple technology card readers on the same system."

- Dedicated communications server, with 30 LAN chains
- Dedicated Alarm Monitoring Client
- Three System administration Clients
- Four Badging stations
- A 10 user WEB client
- A mixture of Symmetry multiNode and M2100 control panels
- 203 mag-stripe card readers with PIN
- Six smart card readers with PIN
- 390 monitor points
- 22 controlled outputs
- Over 1000 programmed conditional commands
- A second remote campus added to the system

As impressive as this growth has been, Magel states, "Eventually I want to have all exterior doors to all buildings accessible by card access alone and have all monitoring devices report solely to the Symmetry Security Management System. We will tie system growth to projects, upgrades and smart classroom technologies. I would forecast a one hundred percent increase within three years."

The first of these key events was the integration of BCIT's electronic identification program into the Symmetry SMS. In 2000, BCIT had implemented a new ID program to replace its previous "cut and paste" ID cards. This new card was dubbed the "BCIT OneCard" and as the name implied, it was to become the one card that would replace the numerous other cards students had used on campus for various services. The ID production was integrated to the SMS in 2001 and the card is now used in:

- The library, to check out books
- Access to halls, labs, and studios
- AudioVisual Services (student equipment bookings)
- Recreation and Athletics in the Student Activity Centre
- Printing and copying
- On- and off-campus discounts
- BCIT Student Association retail operations

Crucial to the card's success is the multiple technologies on the card. The technologies used are a three trak HiCo magnetic stripe, a magnetic debit "junk" stripe, barcodes and most recently these features are now being applied to contactless smart cards. "Symmetry allows us to run multiple technology card readers on the same system," said Gojevic.

The next event that prompted growth in the security system was the creation of the new "Media Centre of Excellence" (MCE). Using high-end computers to learn animation, graphical design and other studies of computer generated art, BCIT needed to insure the assets and students were effectively protected. This privately funded centre would become the first area on the Burnaby campus that allowed after hours student access. With the use of integrated CCTV, card access and alarm monitoring, after hours access was granted to authorized students, and no extra security personnel was needed.

Then came 9/11. This event prompted BCIT to review its security policies and ascertain the threat to its staff, students and physical assets. It was decided that one of the first areas to receive extra security would be its LAN/WAN infrastructure. This project provided an infrastructure of LAN enabled security control panels installed in 25 buildings spread all over campus. This was the turning point that made it cost effective and practical for all departments across the campus to tie into a centrally controlled system.

"I am very pleased," Magel said. "The system is robust, provides remote use, and incorporates several old systems into one. [It] has expandability, continued upgrades in software, and multiple layers of security with the addition of smart cards and biometrics."

"Through it all, G4S has provided a product that has migrated seamlessly to its current level and it has always been backwards compatible with its older products," states Gojevic. "This was an important feature that allowed BCIT to save money during the expansion phases and thus promoted the continued use of the Symmetry line."



G4S Technology
www.g4stechnology.com