



*"EchoStream was obviously made by people who understand the AIX operating system, so it works very well on that platform. And it's transparent. It doesn't put any kind of load on the system. It just works very cleanly in the background."*

Victor Arcega, Senior Systems Analyst, BCIT

## Business Profile

Company Name:  
British Columbia Institute of Technology

Headquarters:  
Burnaby, British Columbia, Canada

Industry:  
Education

Business Size:

- Five campuses and many satellite locations throughout British Columbia,
- Approximately 16,000 full-time and 32,000 part-time students .
- 1,600 full-time and 500 part-time faculty and staff.
- BCIT offers a wide range of programs leading to a variety of certification levels, including certificates, diplomas and applied bachelor's degrees.

Business Environment:

- Education institute.
- Business-critical assets include key databases for student records, human resources and financial operations.
- BCIT's mission is to serve learners and employers by providing high-quality technical and professional education and training and by advancing the state-of-practice.

Implementation Team:  
Vision Solutions and BCIT

Vision Solutions Product:  
• EchoStream for AIX

## Critical Issue

The Greater Vancouver Area, home to BCIT's main campuses, is in an earthquake zone. Consequently, business continuity concerns are critical to this institution. Obviously, protecting the availability of critical data and the applications that manage them is a major component of BCIT's disaster recovery plans.

Despite not having had to deal with a disaster yet, BCIT didn't intend to wait for a disaster to happen before taking action. In particular, the institution needed to guarantee the recoverability of its critical information assets, including financial, human resources, and student data.

## Results

- Recovery times have been greatly reduced.
- The ability to recover specific data items to any point in time is a benefit that has already proven its value.
- The backup system is more than 12 kilometers from the primary system. BCIT is considering moving the backup system even farther away, outside of the major earthquake zone.
- EchoStream requires virtually no day-to-day management.

## Technologies

- Vision Solutions EchoStream™ for AIX®
- Oracle® DBMS
- IBM Power 570 – primary
- IBM Power 550 – backup

## Business Challenge

Being located in the tectonically active Pacific Rim, earthquakes are an obvious concern for BCIT, but the institution also has to prepare for the full range of disaster risks that any other organization faces. As a result, BCIT wanted to design and implement better business continuity and disaster recovery strategies throughout the institution. Naturally, those strategies must take into account BCIT's most important applications and data.

All of BCIT's critical student, financial and human resources data are stored in Oracle databases running on IBM Power Systems and AIX.

BCIT wanted a disaster recovery solution that would work solely within a single environment, namely AIX. Some of the disaster recovery alternatives that the institution considered copied data to other platforms, but because those options required additional hardware, they proved to be more expensive than a single-platform solution that backed up data to a second AIX system.



## Solution

When searching for a disaster recovery product, in addition to assessing alternatives, BCIT read whitepapers from Vision Solutions and evaluated Vision's EchoStream solution. BCIT found that EchoStream met all of the institution's requirements.

An expert from Vision Solutions implemented EchoStream in a test environment at BCIT in less than one day. The Vision expert also spent about two days helping with implementation planning and training.

The IT staff at BCIT took notes on the installation procedures. They later implemented EchoStream in the production environment by adhering to the process followed by the Vision expert.

EchoStream replicates all critical data from an IBM Power 570 AIX server located in the main data center in Burnaby to an IBM Power 550 AIX server at BCIT's downtown Vancouver campus. The backup system is in a newer building that is built to higher earthquake resistance standards. BCIT is considering moving the backup system to a more distant, less earthquake-prone location in the future.

BCIT has been using EchoStream for about 18 months and it has found the solution to be very stable, powerful and problem-free. BCIT has tested failovers from the primary to the backup server and the processes worked smoothly. These tests included both a failover functionality test and a full business continuity simulation exercise, leaving BCIT confident that, should the worst occur, it will be protected.

The institution also tested the bi-directional synchronization capabilities of EchoStream. This will allow the primary site to be resynchronized should the backup site need to assume the production role for a while.

When asked to define the benefits of EchoStream, Victor Arcega, a senior systems analyst at BCIT, answered, "It gives us a much smaller RTO [Recovery Time Objective]. We're no longer faced with recovery times of 48 hours or so. Now we can bring our systems back very quickly."

"The ability to restore data to previous points in time [using EchoStream's RightTime CDP™ feature] is another benefit," added Peter Hadikin, also a senior systems analyst at BCIT. BCIT has already used this point-in-time recovery feature. "The finance department wanted to redo a payroll and they had a specific time they wanted to recover to," explained Arcega. "Being able to pick a specific time to restore to was very useful. Otherwise, we would have had to restore from a backup tape and who knows what time we would have had to go back to."

The system analysts at BCIT also appreciate the intelligent, automatic resynchronization capabilities of EchoStream's AutoGuard™. This feature resolves data issues in the background, without the need for operator intervention. It also provides easy-to-understand visual indicators of a system's health.

The bottom line is that, "EchoStream is a great product," reported Hadikin. "It replicates data from your primary to your backup site really well. And it allows you to bring up system clones in minutes if you want to. We could probably go to our backup site and have a clone up in five or ten minutes, ready for someone to take a look at data."



15300 Barranca Parkway, Irvine, California 92618  
1-800-957-4511 ▪ 1-801-799-0300 ▪ visionsolutions.com



High Availability Disaster Recovery Systems and Data Management