



Canadian Imperial Bank of Commerce

Successful HP NonStop server upgrade meets CIBC's growing business needs

Benefits

- Maintains CIBC's position as an industry leader in availability for one of the largest POS implementations in the world for a single institution
- Provides the scalability needed to support Canadian consumers' growing preference for card-based payments over paper-based payments
- Offers twice the capacity of the previous system for the same price

CIBC (Canadian Imperial Bank of Commerce) is the largest financial institution in Canada with assets of more than Can\$262 billion. CIBC has the largest market share in Canada for electronic banking services with more than 400,000 PC banking customers, 1 million telephone banking customers, 1,400 branches, 5,500 automated banking machines, and more than 100,000 POS merchant locations. One of CIBC's key differentiators is its record of high availability for its point-of-sale service—a record it intends to sustain.

With the Canadian debit/POS market growing 40 percent every year, CIBC knew that it was time to upgrade its host systems. CIBC, which for 17 years had used HP NonStop systems to maintain its ultra high availability for POS service, decided to upgrade from HP NonStop K-series servers to next-generation NonStop S-series servers, which are better equipped to scale to CIBC's needs in the coming years.

High reliability, availability are key

"Whether retailers are large or small, they need to be able to process a customer's card transaction when, where, and how they want," said Bruce Nanton, general manager of CIBC Merchant Card Services, Operations, and Client Services. "Our Merchant Card Services' great success in the Canadian card payments industry can be attributed in large part to our history of excellent systems reliability. That's why, when we were looking to upgrade our host systems, we chose the NonStop S-series servers."

INTRIA-HP, a joint venture of CIBC and Hewlett-Packard, had ultimate responsibility for this migration. Gord Nicholson, director of HP and AS/400 Services for INTRIA-HP,

agreed that the high availability and reliability historically demonstrated by the NonStop servers were key factors in opting for the NonStop S-series upgrade.

“In such a highly competitive market, we need to minimize any chance of downtime,” commented Nicholson, citing supermarkets as an ideal example for the importance of reliability and performance of a POS service. “Customers with full shopping carts need to be assured they can successfully carry out their card-based transaction. It’s absolutely critical for us to maintain ultra high availability so that we can keep CIBC’s merchant base satisfied and sustain industry leadership in Canadian credit and debit processing. Otherwise, both CIBC and INTRIA-HP stand to lose a considerable amount of business.”

CIBC’s unique contingency plan has made ultra high availability a reality for many years. The upgraded solution is a split workload implementation of ACI’s BASE24-pos application, distributed across two NonStop S-series servers located in different data centers about 35 miles apart. Using HP NonStop Remote Database Facility (NonStop RDF) software to keep the databases synchronized, each server handles half the load during normal processing. In case of planned outages or a disaster at one of the data centers, each server can support the full load.

Canadian debit/POS market

- In 1999, 57 percent of Canadians chose debit and credit over cash and checks.
- Per capita, Canada is number one in automated banking machine (ABM) usage and number two in EFT/POS usage.
- In 1998, an adult population of 21.8 million relied on 34 million debit cards.
- Debit as a payment preference has risen from 10 percent in 1995 to 38 percent in 1999, with more and more Canadians expected to embrace the ease of using debit cards.

Scalability, performance also critical

Nicholson acknowledged that INTRIA-HP and CIBC considered other competitors. “The HP platform has served us well, and we wanted to minimize the architectural and application changes to provide the most simple and seamless solution for CIBC.”

Dat Nguyen, manager of Midrange NonStop Systems for INTRIA-HP, added that the scalability of the NonStop S-series servers, as well as price/performance, data integrity, and security, were other key factors in the decision-making process.

“We need all of these features for mission-critical applications at the point of sale, and HP fit every criteria we wanted,” said Nguyen.

“The decision to upgrade to the NonStop S-series servers was a strategic one,” he continued. “We decided to deploy something that would last a long time, as well as allow for upgrades in the future. CIBC needed a platform that could handle the credit and debit volumes that we projected for the next several years, which is about 20 percent year-over-year growth.”

Ambitious goal: Twice the capacity

The goal was ambitious: to double the capacity of its existing HP server-based POS platform—which supports about 120 transactions per second for a 15-minute sustained peak—to support 250 transactions per second in the same period and 430 transactions per second at absolute peak, with full contingency.

A six-week benchmark was undertaken to confirm that performance could be sustained at this level. The benchmark was a joint effort between HP Services, CIBC, INTRIA-HP, and ACI Worldwide (creator of the BASE24-pos application).

“The benchmark exceeded expectations and targets,” stated Nguyen. “The results came back, and we discovered that we could more than double the previous transaction volume, for about the same price.” He also noted that the benchmark proved that all pieces of the solution were compatible and ran smoothly on the new HP hardware and software.

Once the benchmark demonstrated the solution’s ability to meet CIBC’s needs, INTRIA-HP orchestrated a world-class implementation and HP migration services further assisted in the smooth upgrade.

“The migration from the NonStop K-series to the NonStop S-series servers went very smoothly, without any impact on CIBC’s customers,” said Nicholson of the enormous, behind-the-scenes project. “One of the reasons for the success was the meticulous planning of the job. We had very detailed scripts for every activity.”

The CIBC solution

At the heart of the CIBC system are two HP NonStop S72000 servers located 35 miles apart, each handling half the total workload under normal processing circumstances. The live systems feature

- 16 processors for each system
- ACI Worldwide’s BASE24-pos application
- 340 8.8-gigabyte disk drives
- More than 100 18-gigabyte disk drives
- 24 Atalla A10000E network security processors from HP
- 72 HP ServerNet Wide Area Network (SWAN) concentrators
- HP NonStop SQL software
- HP NonStop Transaction Services/MP (NonStop TS/MP) software
- HP NonStop Transaction Management Facility (NonStop TMF) software
- HP NonStop Remote Database Facility (NonStop RDF) software

CIBC is well positioned to remain a leader in the North American financial services marketplace in 2000 and beyond with NonStop systems handling the electronic processing of CIBC’s growing online e-commerce transactions.

“Our reputation is built upon the outstanding systems reliability we have and our ability to handle the transaction needs of some of the largest retailers in Canada,” concluded

CIBC's Nanton. "Our relationship with HP and the implementation of the HP NonStop S-series platform will allow us to continue that leadership."

About INTRIA-HP

INTRIA-HP, a joint venture of CIBC and Hewlett-Packard, provides technology operations services for mission-critical business applications such as e-commerce and financial processing. INTRIA-HP processes more than 3 billion transactions annually across multiple platforms and technologies. INTRIA-HP implemented CIBC's upgrade from NonStop K-series servers to NonStop S-series servers in 1999.

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