

## success story



"CBC prides itself on its forward-thinking and integrated use of the web for sports events such as the Olympics. Our partnership with HP was a critical determinant in the success of our online coverage."

Liz Gyalokay

Director of Information Technology Operations  
and Client Support Services  
Canadian Broadcasting Corporation

cbc.ca's new  
hp infrastructure  
successfully sustained  
17 million page views  
over the entire  
2002 Winter Olympics



When the Canadian figure skaters, David Pelletier and Jamie Salé, didn't initially win the pairs skating gold medal in the 2002 Salt Lake City Olympic games, a huge number of Canadians turned to cbc.ca for explanations. They turned there again when it was finally announced that the skating pair would get their gold medal. Plus, the Winter Olympic games were hugely successful for Canada's women's and men's ice hockey teams – both taking home gold medals – cbc.ca covered it all with blow-by-blow information, keeping the Canadian people up to date every step of the way.

When it was all over and done with, and the closing ceremonies complete, Canada had won six gold medals in the sports it holds most dear. cbc.ca had withstood and delivered prime performance to a cumulative load of 17 million page views across the 16 days of the event – delivering the latest news to Canadians everywhere. The Olympic-driven traffic to cbc.ca more than doubled the average audience seen at the web site during a regular-news period.

### **issues with increasing demands for online information**

In recent years, the Canadian Broadcasting Corporation (CBC) has seen a shift in needing to provide more information about its broadcast stories on its web site. Julie Bristow, Managing Director of cbc.ca explained, "On September 11, 2001 we experienced an unprecedented number of people accessing our web site to get the latest news on what was happening in New York and Washington DC. We weren't able to provide the level of service that we wanted to, in fact we had some serious technical difficulties."

CBC's online division has been on a steep growth curve over the last few years. Born from a simplistic infrastructure, it wasn't robust in nature and as the company saw peaks in online traffic it exposed many technical issues. Bristow admitted, "Until more recently we'd not been good at anticipating how many people would go to the web site during big news

events and this lack of accurate forecasting meant the public were frustrated with our inability to reliably deliver online news."

Denys Rouselle, Manager of Technical Support for CBC noted, "Our legacy web site was essentially a single server environment with no redundancy, and which lacked capacity. We needed a new, well-planned infrastructure for the cbc.ca web site, which could scale to handle special events, like the Olympics, generating huge increases in page views.

### **turning to hp for a total web site infrastructure solution**

CBC's corporate infrastructure is largely built on Hewlett-Packard Company technology and services. Rouselle commented, "As many of our internal applications were already based on HP-UX and we had a good experience with HP as a vendor partner supporting our business solutions, so it was natural that we turned to them to address our web site infrastructure needs."

CBC selected to deploy the new cbc.ca web site across four 4-way HP rp5400 servers running HP-UX 11i, with one further HP rp5400 server acting as a database server, all located in its Toronto data center. To optimize performance, some content staging servers were implemented too.

Rouselle explained, "HP-UX 11i was the logical choice because it is the first operating environment built specifically for end-to-end performance, scalability and high availability. In our decision to move the site to a Java environment we encountered a whole level of software complexity and that's where we enjoyed HP's ability to truly provide a total solution – we contracted with HP Services' consulting to help us resolve some of the technical issues."

He continued, "We decided to handle redundancy via Cisco switch technology that performs load balancing. The end users perceive that we have one web server, they cannot see that we have four servers with redundancy built into them." CBC uses a HP Apache-based

## **industry**

### **broadcasting**

### **challenges**

- **unpredictable user loads caused legacy web site infrastructure failure**
- **increasing need to ensure the sustainability of cbc.ca's technical capacity to deliver its online news content, on which a great many Canadians already rely, to a growing audience**

### **solution**

- **HP-UX 11i-based server environment built specifically for end-to-end performance, scalability and high availability**
- **hp Services to ensure new solution meet high availability goals**

### **results**

- **sustained 17 million page views while improving delivery speed over old infrastructure**
- **restored Canadians' faith in CBC ability to deliver online news to them**
- **can now deliver very rich media content over the web**

Web Server, which is bundled with the HP-UX 11i Operating Environment, for its end-to-end secure sockets layer (SSL) web serving. Plus, HP OpenView GlancePlus, MeasureWare and Omniback II are used for performance measurement of the servers and control of the tape backup processes.

To ensure that cbc.ca stays highly available – 24 x 7 – the company has contracted with HP Services for Critical Systems Support on the mission-critical application environments and Personalized Systems Support for the remaining infrastructure. Rouselle noted, “For special events we also have contracted with HP Services to supply some customized services, such as stocking additional parts in our data centre. It is essential that we deliver good online performance and scale to meet the public’s demands for more information.”

Bristow agreed, “We expended a lot of effort making investments in the infrastructure to ensure we have the right support, both inside and outside the corporation, to handle an online load of 20 million people simultaneously accessing information from our site. During the Olympics it certainly proved to be successful.”

## results

CBC’s key goal for its web site is to deliver additional information supporting the television broadcasts, this in turn makes the high availability of the site a critical success factor. Rouselle observed, “We can never accurately predict the user load – late breaking news can cause huge spikes in demand for online data – so we set about architecting a solution that wouldn’t fail and that could scale to meet those peak demands. The HP-UX 11i infrastructure that we’ve built has allowed us to do exactly that. It’s easy to add the HP rp5400 servers as we need to expand, plus they are rack-mounted so the floor space in our data centre is minimized.”

Over the course of the two weeks of the Winter Olympics cbc.ca saw 17 million page views – double the traffic in the previous two weeks. Bristow noted,

“The real test of the infrastructure was sustaining this load. To our delight, not only did we sustain the load, but we were able to improve our delivery speed over our old infrastructure.”

The pattern of online access shows that when people cannot be in front of a television, for example when they are at work, they turn to the web site for the latest information: cbc.ca experiences peak traffic during the lunch time period. “It was critical to us that the delivery of our online content did not have any interruptions and with our new infrastructure we were able to meet this goal,” said Bristow.

Rouselle attributed much of the success to HP Services. He said, “HP is very responsive with respect to support. The HP-UX 11i support team has been especially helpful. It confirmed we made the right decision to rely on HP for this solution – we already had experience and knowledge of the systems and operating environment and HP has gone out of its way to make sure our Internet environment is a success. Being a broadcast company we need to deliver very rich media content over the web – the HP-UX 11i infrastructure has certainly given us this capability now and the flexibility needed for our future growth.”

For more information on how working with Hewlett-Packard can benefit you, contact your local HP service representative, or visit us through the Internet at our World Wide Web address: <http://www.hp.com>



## customer at a glance:



**company:** Canadian Broadcasting Corporation

**headquarters:** Ottawa, Ontario, Canada

**founded:** 1936

**employees:** over 7,000 permanent staff

**tel:** (613) 724-1200

**URL:** [www.cbc.ca](http://www.cbc.ca)

**main services:** The CBC tells Canadian stories reflecting the reality and the diversity of our country; informs Canadians about news and issues of relevance and interest; supports Canadian arts and culture; and builds bridges among Canadians, between regions and two linguistic communities

## solution highlights

- **four 4-way HP rp5400 servers running HP-UX 11i and one further HP rp5400 server acting as a database server**
- **hp Services’ consulting for Java technical issue resolution**
- **Cisco switch technology for server load balancing**
- **hp OpenView GlancePlus, MeasureWare and Omniback II for performance measurement of the servers and control of tape backup processes**
- **hp Services for Critical Systems Support on the hardware and Personalized Systems Support on the software**

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Printed in USA M0302

5981-0782EN