



Exinda Case Study



Ryerson University

Exinda Tops Packeteer with Scalability & Reporting

Founded in 1948, Ryerson University is Canada's leader in innovative, career-focused education. Located in downtown Toronto, Ontario, Ryerson has built its reputation on the strength of its academic curriculum. The university offers close to 100 PhD, master's, and undergraduate programs, with a total enrolment of 25,000 and more than 65,000 registrations annually in The G. Raymond Chang School of Continuing Education.

A key priority for Ryerson is to provide consistent access to network applications, which range from a public-facing web site to critical applications such as student registration and learning management. With students, faculty, and staff all vying for the same resources on the network (including as many as 5000 wireless users at any given time), Ryerson needed a way to provide a predictable user experience.

The Challenge

Until 2011, the University had been using a packetshaping appliance to prioritize traffic. However, when the University upgraded its network bandwidth from 600 Mbps to 1 Gbps, the technical staff found that the packet-shaping appliance couldn't prioritize traffic at more than 600 Mbps.

"We were going up to a gigabit of traffic and we felt we would be expanding that pipe further in the coming years, so we needed a solution that could scale up," said Ken Woo, assistant director for communications services at Ryerson University. "We bought additional bandwidth, but we had no way to prioritize the traffic or see what kind of traffic was coming into the university. And the additional bandwidth didn't help, because as you added bandwidth, applications like BitTorrent would just use it up." Ryerson needed a way to contain recreational traffic when network resources were needed by core educational applications.

Another challenge was the lack of strong reporting capabilities from the old packet-shaping product. "There was no charting we could show to upper management," said Woo.

The Solution

When Exinda announced a product that could break the 5-gigabit bandwidth barrier, Woo and his team immediately trialed an Exinda 8000 series WAN Optimization Appliance from Exinda partner EdgeWorx of Markham, Ontario. "We deployed it in line in our Internet connection and put it in transparent mode, and we could immediately see all of our traffic and begin to prioritize it," said Woo.

One obvious issue was that P2P traffic was using 200 Mbps of bandwidth alone, crowding out more important applications. Using the 8000 Series' policy management system, Woo set a policy that limited P2P traffic and within a minute, the P2P applications went from using 200 Mbps to using 30 Mbps. "I was impressed," said Woo.

From there, it was simply a matter of prioritizing other applications on the network. "Typically we prioritize our learning management system, web services to the outside world, student registration system and email get the highest priority, plus any VoIP and videoconferencing," said Woo. "Other traffic that may be going to other parts of the campus are in the second tier of priority, and then P2P traffic is the bottom."

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Snap Shot

INDUSTRY

Education

PROBLEM

We needed a solution that would allow us to contain recreational traffic when network resources were needed by core educational applications. Reporting capabilities were also a must since the old packet-shaping product could not do the job.

SOLUTION

- Exinda 8000 and 10000 Series

BENEFITS SUMMARY

- Dynamic allocation of network resources and increased productivity
- Predictable access to learning applications should get the highest priority
- A better dashboard that can easily produce reports for management

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The Solution, continued

Significantly, the 8000 Series allows policies that enable flexible bandwidth use. For example, P2P traffic is allowed to scale up to 50 percent of available bandwidth as long as no higher-priority applications need it.

Another improvement has been in reporting. "We now have a dashboard that shows us more and better information than we've ever gotten before," said Woo, "and we can easily produce reports for management that make sense to them."

Since deploying the 8000 series appliance, Ryerson has upgraded to the newest 10000 Series appliance, and with its ability to manage 10 Gbps of traffic, this will take care of the University's needs for years into the future. In addition to the traffic visibility, prioritization, and reporting features of the new appliance, Woo is also considering using the built-in cache to handle video and software updates. "We can relieve a lot of load on our servers by caching video and software updates," he said.

In all, the Exinda appliance has given Ryerson University a way to see, prioritize, and report on bandwidth consumption throughout its network, making the most of available capacity while pleasing its many users.

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– Ken Woo, assistant director for communications services at Ryerson University

About Exinda

Exinda is a proven global supplier of next-generation WAN optimization solutions that provide application and user experience assurance. Today, 6 million students rely on the Exinda Learning Network worldwide because more than 700 educational institutions have turned to Exinda Edge to assure application performance, improve the end-user experience, contain recreational applications and reduce network operating costs for the IT executive.

For more information, please visit
<http://www.exinda.com/education>.

