

# Global Electronics Manufacturing Services Firm Builds Secure Global Connections and Boosts Application Performance over the WAN with Solutions from Juniper Networks

## BreconRidge<sup>®</sup>

**Customer:**

BreconRidge

**Industry:**

Electronics Manufacturing Services

**Challenge:**

Provide secure network links between corporate headquarters in Ottawa, Ontario, Canada and four facilities located around the world. Improve critical business application performance in the midst of rising bandwidth costs

**Solution:**

Juniper Networks integrated security gateway solution, IPSec VPN appliances, and application acceleration platforms

**Benefits:**

- Enable customers to quickly and easily access information such as reports, drawing files, engineering documents and spreadsheets via secure portals
- Improve application response time and optimize WAN performance
- Secure connections between BreconRidge operations around the world
- Reap savings of \$30,000 to \$50,000 per year through more efficient use of bandwidth

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**Dan Greenwood**  
IT Director  
BreconRidge

Headquartered in Ottawa, Canada, BreconRidge ([www.breconridge.com](http://www.breconridge.com)) is one of the world’s top 50 electronics manufacturing services (EMS) companies with facilities in Canada, the United States, the United Kingdom and China. Employing state-of-the-art technology and world-class talent, BreconRidge provides customers with a full-service operations model. Servicing the needs of both emerging and established original equipment manufacturers in the communications, industrial and consumer market sectors, BreconRidge delivers design, process and test engineering services; component sourcing; global procurement; supply chain management; manufacturing; order fulfillment; and distribution services, along with after-sales support including product repair, refurbishment, warranty tracking and complete logistics services. Products manufactured by BreconRidge can be found all over the world.

BreconRidge significantly expanded its global reach in 2005 to meet the needs of its existing customers and help position the company for growth in 2006 and beyond. The company has steadily added to its customer base over its four-year history, and the expansion of its global coverage is an important facet of the company's long-term growth strategy.

BreconRidge relies heavily on frequent interaction among employees distributed across its global operations in order to more effectively deliver services to customers. BreconRidge also provides its customers with easy access to the information they need to ensure the highest levels of service. That information access is a vital component of the partnership BreconRidge forms with its customers throughout its product lifecycles – from early product development and design through to manufacturing and ultimately delivery of the products to its customers' clients.

**The Solution**

Securing all internal interactions and communications, as well as external information access, is a top priority for BreconRidge. Given all the threats to enterprise security that exist today, a company with multiple locations and global links can't afford to be lax about protecting its networks, systems and applications.

To provide that protection, BreconRidge installed Juniper Networks Integrated Security Gateway (ISG) 2000 security platforms at its corporate headquarters in Ottawa. Designed for large enterprise, carrier and data center networks, the

ISG 2000 is a fully integrated firewall, IPSec virtual private network (VPN), and intrusion detection and prevention system with multi-gigabit performance, a modular architecture, and virtualization capabilities.

The ISGs serve as core routers for BreconRidge, and all WAN links to and from the remote sites – including both point-to-point and VPN backup links – come through the pair, according to Bill Kaufman, manager of network administration and security at BreconRidge. The ISGs also provide the company with a primary firewall interface to the Internet through redundant ISPs.

BreconRidge uses Juniper Networks firewall/ IPSec VPN integrated security devices for secure, encrypted connections between headquarters and its branch offices. These purpose-built devices combine stateful inspection firewall with deep inspection technology for application-level protection as well as IPSec VPN, and denial of service (DoS) mitigation functions. The Ogdensburg facility is equipped with a pair of Juniper Networks NetScreen-208 firewall appliances; the Caldicot facility has a Juniper Networks NetScreen-204 firewall; the Hong Kong site has a redundant pair of NetScreen-208 appliances; and the Shenzhen facility also has NetScreen-208 appliances.

In addition, BreconRidge has also invested in Juniper Networks WXC application acceleration platforms to accelerate the delivery of key applications over the WAN, enabling more efficient use of its fixed-capacity wide-area links.

## The Benefits

The Juniper solutions enable BreconRidge to provide secure connections between all of its operations, says Dan Greenwood, IT director at the company. Authorized personnel at customer companies can access vital internal information such as reports, drawing files, engineering documents and spreadsheets via secure portals, he says. This allows BreconRidge to keep customers up to date on the services it provides, and to securely collaborate with customers throughout their product lifecycles.

Greenwood says BreconRidge selected the Juniper solutions because they offered the highest performance at the lowest cost compared with competing systems and because they were seamless to implement.

“We wanted technology that we could deploy cleanly and that would enable our employees and customers to securely gain access to the information they need, when they need it,” Greenwood says. “The Juniper products are easy to maintain and are also scalable; they will definitely support the company’s needs as network demand grows.”

Because the different systems are well integrated, BreconRidge can more easily maintain a consistent level of security for all its networks. One Senior Network and Security administrator at the company’s facility in Ogdensburg is able to oversee the entire global network infrastructure.

- Accelerate Application Delivery over the WAN:** To accelerate application delivery for the remote locations, the company deployed a Juniper Networks WXC™ 500 application acceleration platform at the Ottawa headquarters facility and WXC 250 platforms at the Ogdensburg and Hong Kong sites. The WXC platforms, based on the integrated WX Framework™, allow BreconRidge to improve application response times and optimize WAN performance for users accessing centralized applications from branch offices or sharing large files between locations.

The WXC platforms provide features such as Molecular Sequence Reduction™ (MSR™) compression, Network Sequence Caching, Packet Flow Acceleration™ (PFA™) and Application Flow Acceleration™ (AppFlow™) technologies to improve application performance over the WAN. The MSR and sequence caching technologies preserve valuable bandwidth by preventing redundant transmissions from traversing WAN links, dramatically reducing the amount of traffic competing for a limited amount of bandwidth and streamlining the delivery of all applications. The PFA and AppFlow technologies, meanwhile, improve the performance of TCP-based applications, as well as applications based on specific protocols such as the Messaging API (MAPI) used by Microsoft Exchange, the Common Internet File System (CIFS) used by Microsoft file services, and HTTP used by web-based applications.

Greenwood expects significant benefits from the WXC platforms, including cost savings from the more efficient use of WAN bandwidth. The bandwidth savings will be particularly significant for connections with the Hong Kong facility, because of the high cost of networking in that region.

“The use of the compression capabilities of the WXC platform will clearly give us more bang for the buck,” Greenwood says. In fact, according to Greenwood’s calculations, BreconRidge will save an estimated \$30,000 to \$50,000 per year from more efficient bandwidth use.

The quality of service (QoS) features of the WXC platform will enable BreconRidge to isolate certain traffic so that it can prioritize particularly critical business applications, such as its enterprise resource planning (ERP) system, as these applications’ response times affect production efficiencies.

BreconRidge has developed a strong relationship with Juniper Networks, as it did with NetScreen and Neoteris previously when BreconRidge began using those companies’ products. Juniper acquired NetScreen in 2004, and NetScreen acquired Neoteris the year before that. Greenwood says BreconRidge has benefited from the level of support Juniper has provided.

BreconRidge implemented all the products with help from Juniper reseller Dalian Enterprises Inc., also based in Ottawa. “Dalian has been able to bring us right to the top level of Juniper whenever we’ve had any issues to deal with,” Greenwood says. But problems have been minimal. “There have been very few, if any, issues with the equipment,” Greenwood says. “With all of the Juniper equipment we’ve never had a failure.”



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