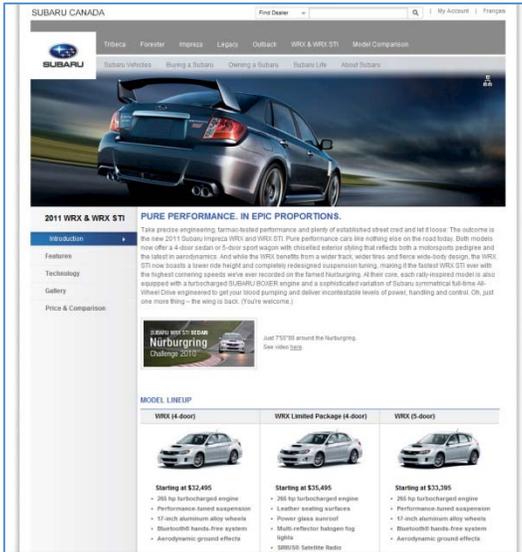


## Subaru and A10: Great Performance at a Great Price



With constantly-changing weather and a landscape encompassing everything from the sprawling prairies of the Saskatchewan, to the concrete canyons of Toronto, to the imposing majesty of the Canadian Rockies, it makes sense for Subaru to have a strong presence in Canada.

In 1976, Canadians got their first exposure to the benefits of Subaru All-Wheel Drive. Then, in

1989, under the guidance of parent company Fuji Heavy Industries, Subaru Canada, Inc., ([www.subaru.ca](http://www.subaru.ca)) began an expansion process that would eventually oversee more than 86 authorized Subaru Dealers across the country. The safety, control, and performance of the Subaru symmetrical full-time All-Wheel Drive system has since endeared itself to Canadians, who have helped Subaru sales in Canada reach record heights.

All that sales growth has made substantial demands on Subaru Canada's server farms and website, with the company delivering almost 2 million web pages to 306,000 visitors in the month of March alone.

### Time to Kick the Tires on a New SLB

Subaru Canada had been using the Foundry ServerIron 4G-SSL to provide server load balancing for its website ([www.subaru.ca](http://www.subaru.ca)). However, when it came time to renew the support contract with Brocade Communications Systems, Inc., which had acquired Foundry Networks in 2008, Subaru Canada decided to evaluate some of the newer technologies available.

Subaru Canada's Director of eBusiness & Information Systems, George Hamin, became impressed with A10 Network's AX Series New Generation Server Load Balancers while running a proof of concept using the AX1000.



Subaru Canada, Inc. markets and distributes Subaru vehicles, parts and accessories through a network of over 86 authorized dealers across Canada. This past March was their website's busiest ever, with 306,000 visitors viewing 1.97 million web pages.

*"Once a potential buyer test drives one of our vehicles, the rest is easy. I feel the same way about A10's AX Series of appliances - once you try them you'll be sold... While we were originally drawn to the AX's application acceleration features, the recent enhancements to the AX Virtualization Multi-tenancy feature will allow us to consolidate our Microsoft Exchange 2010 environment and our web environment to a single pair of appliances, with high availability. This reduces the amount of Application Delivery Controllers in our network and saves us money in the process."*

**George Hamin**  
*Director eBusiness & Information Systems for Subaru Canada, Inc.*

While Hamin and his team were impressed with the performance of the AX 1000, due to the rapid growth rate of sales at Subaru Canada, they decided they might later appreciate having the additional overhead provided by the AX 2500, with its 10 Gbps throughput capacity, as opposed to the 4 Gbps capacity of the AX 1000. With a list price of \$2,500 per Gbps, the AX 2500 was a bargain, costing less than one-third of competing solutions (based on throughput-\$-per-Gbps metric). Hamin said it was an easy choice, since the AX appliance cost “just a little more than the cost of renewing support on our 4G-SSL.”

Hamin was originally interested in the AX’s Application Acceleration features. The AX Series is optimized for SSL and L4-7 acceleration, and web caching further accelerates the user experience by reducing the time required to download each page. This, in turn, reduces the amount of bandwidth needed to serve pages and decreases the total number of requests placed to web servers. Furthermore, the AX Series offers several compression algorithms to reduce the size of each object on the page. Again, this helps reduce the amount of bandwidth being used. Hamin said he was able to leverage the compression and caching features in order to greatly accelerate the delivery of the enterprise’s web content.

It was only after Subaru Canada had installed the 64-bit AX 2500 appliances that Hamin and his team learned of the forthcoming AX virtualization feature. They were intrigued by the possibility that this feature might help them reduce the costs associated with supporting both mail and web applications. Virtualization allows customers to sub-divide an AX internally for multi-tenant purposes, whether for multiple organizations, departments, or simply, as in Subaru’s case, multiple disparate applications. Each segmented area becomes an Application Delivery Partition (ADP). Within ADPs, various resources and elements are available. Layer 2/3 virtualization on a per-ADP basis was a particularly interesting enhancement to the ADP feature, as this guarantees true network segmentation between Subaru’s applications.

The AX Virtualization Multi-tenancy feature will allow Hamin to consolidate his distinct environments as if the ADCs were different platforms (i.e., a Microsoft Exchange Server 2010 environment and a web environment) onto a single pair of AX appliances. The pair of AX appliances will be set up in High Availability (HA) mode to mirror the content on the primary appliance and to act as a failover. This implementation will enable Subaru to reduce the total number of ADCs in the network, saving the company a large amount of money in the process.

“So rather than buying a pair of AX 2500s for HA web, another pair for HA Exchange, and another pair for HA SharePoint, you can virtualize a single pair and just keep throwing applications at it until you hit the limits imposed by your applications’ collective peak load conditions, CPU, RAM, or ports,” Hamin said.

## AX Series: Luxury Features at a Fraction of the Price

Subaru Canada installed the AX 2500 New Generation Server Load Balancers in their network, attributing their purchasing decision to the following features:

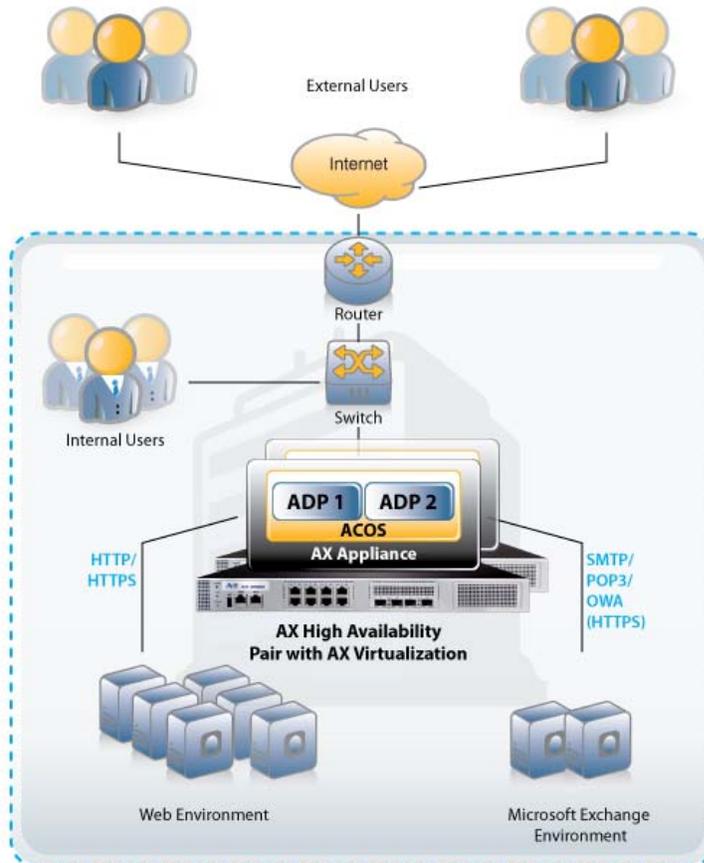
- **64-bit Software and Hardware Platform:** The AX 2500 is a true 64-bit platform with a 64-bit Advanced Core Operating System (ACOS) and 64-bit hardware, which together break the 4 GB memory limitation inherent in all 32-bit systems. This innovation delivers maximum headroom for growth. Despite heavy traffic to its website, Hamin said, “the AX’s CPU usage has never even hit 10%.” In addition, the AX 2500 offers Solid-state Drives (SSD), which further enhance system reliability and performance while reducing power consumption.
- **Application Acceleration (RAM Caching & Compression):** The AX Series’ RAM Caching provides high-performance, in-memory web caching that, by default, caches HTTP responses. The RAM Caching stores a variety of static and dynamic content and serves this content instantly and efficiently to a large number of users. Caching significantly reduces page download time and bandwidth usage. Hamin said compression has helped Subaru Canada to greatly accelerate the delivery of their web content.
- **Ease of Use:** The AX Series’ GUI has an intuitive layout that new users will find easy to navigate. The GUI is separated into Monitor Mode and Config Modes. Monitor Mode enables administrators to display system information related to the operational status of the box, while Config Mode can be used to perform initial setup or to configure a variety of advanced application delivery related settings. The AX Series also offers an industry-standard, text-based Command Line Interface (CLI) for more experienced administrators.

## Success: Blistering Sales and a Blisteringly Fast Website

While the Canadian economy has been slightly more resilient than its US counterpart, even Canadian consumers are feeling a bit reluctant to make large purchases. In spite of this rather gloomy backdrop, Subaru Canada has been bucking the trend and recently announced that it had set a new sales record for the month of August. The company said year-to-date sales are up 30.1 percent, and this past month marked the thirteenth month of continuous growth, fortifying Subaru Canada’s position as the fastest growing Japanese manufacturer in Canada.

This growth, however, does not happen in a vacuum. It takes a sophisticated network infrastructure to deliver information to online auto consumers in a timely fashion. By installing the AX New Generation Server Load Balancers, Subaru Canada, Inc. was able to achieve the Layer 4-7 load balancing they needed for [www.subaru.ca](http://www.subaru.ca). According to Hamin, they are using the AX Series’ RAM Caching and compression and “things are just flying!” The AX Series of enterprise-grade, New Generation Server Load Balancers offers impressive performance over competing solutions and a host of valuable features at a great price.

## Subaru's Logical Network



## About AX Series

A10 Networks' AX Series is the industry's best price/performance advanced traffic manager – helping enterprises and ISPs maximize application availability through a high-performance and scalable web Application Delivery platform. The AX's Advanced Core Operating System (ACOS) architecture has garnered the company numerous awards and is revolutionary by market standards due to its scalable symmetrical multiprocessing (SSMP), shared memory architecture. AX includes an optimized multi-CPU architecture built from the ground up that leaps the competition in terms of performance, scalability and reliability. For more information, visit: [www.a10networks.com/products/axseries](http://www.a10networks.com/products/axseries)

## About A10 Networks

A10 Networks was founded in 2004 with a mission to provide innovative networking and security solutions. A10 Networks makes high-performance products that help organizations accelerate, optimize and secure their applications. A10 Networks is headquartered in Silicon Valley with offices in the United States, United Kingdom, France, The Netherlands, Germany, Brazil, Japan, China, Korea and Taiwan. For more information, visit: [www.a10networks.com](http://www.a10networks.com)