



## CASE STUDY | The Wet Seal, Inc.

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### **Wet Seal outfits their datacenter with Coyote Point Equalizers for server load balancing and application acceleration through SSL offload and web compression**

The Wet Seal, Inc. is a leading specialty retailer of fashionable, contemporary apparel and accessory items. In addition to having over 500 stores in 47 states, the District of Columbia and Puerto Rico they also have one of the most popular retail sites for teens and young women. With steady expansion, new site features and a growing customer base, Wet Seal chose to deploy Coyote Point Equalizers to increase site performance and ensure the secure and efficient processing of online transactions.



#### OVERVIEW

##### Industry

- E-Commerce
- Retail

##### Challenges

- Ensure 100% uptime
- Handle traffic spikes
- Scalability

##### Solution

- Equalizer E650GX
- Equalizer E450GX
- Xcel™ SSL Offload
- Express™ HTTP Compression

##### Benefits

- Increased Performance
- Reduced IT Costs
- Scalability

## CHALLENGE

A nationwide specialty retailer of moderately priced apparel, The Wet Seal, Inc. has been outfitting young women since 1962. In 1996, they joined the ranks of leading online retailers and continued to grow their business into a multi-million dollar operation with the launch of [www.wetseal.com](http://www.wetseal.com) and now serve up over half a million page views to more than 50,000 unique visitors each day.

With Steady growth, new site features and the incorporation of technology like Web 2.0 and AJAX based pages, data center traffic was becoming a strain on the network and application servers were taking longer to process requests.

As the company and its server farm continued to expand, they needed to make some improvements in order to guarantee application availability.

“Our main concerns were scalability and performance under load,” said Greg Maxwell, Ecomm Development Manager for The Wet Seal, Inc. “We needed equipment that would perform without fail and handle the traffic peaks that we see during our frequent promotions.”

## SOLUTION

To better handle the customer growth and traffic spikes, Wet Seal decided to integrate a separate load-balancing solution into their network architecture.

After extensive research and testing, they chose to deploy Equalizer E450GX and E650GX Application Delivery Controllers to load balance across 7 Dell servers running Apache and Tomcat.

As an E-commerce site, secure transactions are a critical to Wet Seal’s success. They’re also extremely taxing on the web application servers.

By utilizing Xcel™, a dedicated hardware based SSL co-processor, Wet Seal was able to move the CPU-intensive SSL

transactions to their Equalizers, freeing their servers up to handle the application delivery.

“The SSL offload was so simple with Equalizer,” said Maxwell. “We looked at the F5 Big-IP during our assessment, and we just couldn’t get it to do what we needed it to do.”

The GZIP compression module built into the E650GX decreases the bandwidth required to deliver HTTP content reducing latency, improving page response times and minimizing abandon rates.

*“We started doing GZIP on the Tomcat and Apache servers and it instantly cut 50% off of the bandwidth.”*

*Greg Maxwell,  
Ecomm Development Manager*

Equalizers high-end, user friendly GUI allowed them to enable features like *sticky connections* and *content switching* with a click of the mouse. The pre-defined match rule expressions took all of the guess work out of the setup process and they were able to have the device up and running in less than an hour.

“We chose Equalizers from Coyote Point because they had the best price/performance on the market,” stated Maxwell. “The SSL functionality, top-notch GUI and enterprise-class performance fit our needs precisely.”

## BENEFITS

### **Increased Performance**

Coyote Point’s Active Content Verification technology and load balancing algorithms ensure that Wet Seal customers are never impacted by unavailable network resources including individual server outages or application failures.

With Equalizer’s capacity to process more than 14,000 secure transactions per second and handle 1.8Gb per second of throughput, they saw page load times improve by 4x and bandwidth requirements plummet.

“The biggest problem I face is a temperamental web app which cannot handle a significant load,” said Maxwell. “This is why I’m so happy with Coyote Point. With the E650GX I am able to work around the web app and keep the public site working, making sales even with the application is collapsing on the servers – All this with zero impact to the public and response times that stay within our strict margins.”

### **Reduced IT Costs**

Compressing data volume using GZIP lowered both the peak and the average bandwidth requirement by a factor of four. This reduction in bandwidth costs paid for the total investment in the Equalizers in under a month.

By adding Equalizers into their network Wet Seal was able to reduce the number of servers in their cluster, boost performance and lower energy costs by more than 25%.

### **Scalability**

Powered by Equalizer’s high performance, flexibility and scalability, Wet Seal is able to quickly deliver new services that are imperative to their business expansion and success.

“Equalizer is the only tool I need to isolate traffic and test solutions under load. We recently added an International site and now have customers from over 80 countries using 40 different currencies to purchase online,” said Maxwell. “We are looking to move to VMware in the near future, and the fact that the 650GX’s come standard with VLB Advanced™ means we’ll be able to start optimizing our virtualization effort immediately.”