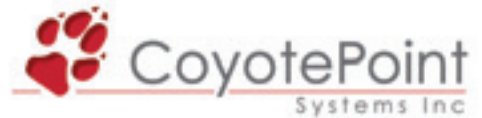


# Network Computing



## The Coyote Point Equalizer E650si appliance

There may be a burgeoning range of application delivery solutions targeting SMBs, but Coyote Point's latest Equalizer appliance raises the bar for features and value. The new E650si brings together a wealth of high performance load balancing capabilities, includes hardware HTTP compression and SSL acceleration modules, and even offers global load balancing out of the box. You'd expect this all to come with an enterprise level price tag, but you'd be wrong as Coyote Point delivers it at a very attractive price point.

The E650si is a 1U rack appliance offering twenty switched Gigabit ports and a separate Gigabit WAN port. In most cases, administrators will simply connect one port to their internal network where their application servers reside, but the extra ports allow companies to isolate all their physical servers on the appliance. The appliance provides full server load balancing plus Layer 4/7 content switching and delivers wire speed Gigabit throughput, whilst its hardware SSL accelerator can handle up to 2,000 Transactions per Second (TPS).

The E650si uses the concept of grouping multiple physical servers together and presenting them as a single virtual cluster, where it performs load balancing across them. The appliance scales well with demand as each cluster can support up to 512 physical servers, and there are no limits on the number of clusters that you can create. Both single and dual network modes are supported, so you can keep all your systems on one subnet, or separate clients and servers into two subnets.

Installing the appliance in the lab proved to be a simple process and we opted for the

more common dual network mode with a server farm on one subnet delivering web, mail and FTP services to our test client systems. Basic configuration is aided by the well designed web interface and during cluster creation you provide an IP address and port range, and choose from six load balancing schemes. These include standard and weighted round robin, and an adaptive mode that spreads new traffic to the least loaded servers. An agent based policy requires each server to provide ASCII values showing its current loading and these are used to adapt the balancing parameters.

To maintain persistent connections the appliance utilises a range of methods. Layer 4 inspection creates sticky connections based on the source and destination addresses, whilst Layer 7 inspection determines persistence based on content, and you can use functions such as URLs and cookies. Match rules take this a stage further as you can query content requested by users and apply this information to load balancing decisions.

Probes will prove useful as these can query web page content, allowing you to test specific areas of an application to ensure that it is functioning correctly. You can also designate physical servers as hot spares that will fire up if a cluster member goes down, or you can use them to serve up different content, should the main application fail.

The Envoy global load balancing feature is accessed from the same interface and this brings GeoClusters into play. Appliances are required at each geographical location where they look after their local clusters. GeoCluster configuration is as simple as

creating clusters, as you enter an FQDN (Fully Qualified Domain Name), add the addresses of each Equalizer cluster to be included, and choose from four load balancing schemes. The only extra work required is to configure your domain's authoritative DNS server with details of each member appliance in the GeoCluster.

During testing we were impressed with how easy the Equalizer E650si was to configure and deploy. For the price it is offering a remarkable range of load balancing functions and these compare very well with more costly solutions. **NC**

*Note: Since the review, Coyote say a new hardware based SSL acceleration chipset (Xcel II) significantly improves SSL processing performance, benchmarked at 3,700 TPS, compared to 2,000 TPS of the test unit.*

**Product:** Coyote Point Equalizer E650si  
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**Web site:** [www.ipcortex.co.uk](http://www.ipcortex.co.uk)  
**Price:** £7,550 excluding VAT

