

## The Sysadmin's Daily Grind: Zeus Load balancer 1.6 in test

# Olympian Heroes

Hot on the trail of the free load balancer Pen, as discussed recently in this column, a new challenger enters the ring. Zeus Loadbalancer 1.6, a commercial product, is now available for Linux, FreeBSD, Solaris, HP-UX, IRIX, AIX and Tru64.

BY CHARLY KÜHNAST

The mighty Zeus weighs in at just under 8 Mbytes including a GUI [1], [3] and is capable of anything you might expect from a load balancer.

It distributes multi-protocol connections without any noticeable delay to an almost unlimited number of backend machines – 200 or more given the right hardware, according to the documentation. Zeus respects existing client/server mappings to avoid destroying sessions.

To prevent the load balancer itself from becoming a single point of failure, you can configure a second Zeus as a backup for the first, which would also give you a performance boost because Zeus runs in active-active mode, unlike the free Pen [2] product which runs in hot-standby mode. The main difference being that Zeus comes without the sourcecode but with more features and more comfort. The mythical father of the gods has a fairly neat browser based GUI, for example.

When deciding which backend system should handle the next connection, Zeus does not follow a strict "Round Robin" procedure.

Instead Zeus analyses the response times of the backends it controls to discover how much load each one can handle. If that is too much like Voodoo for your liking, you tell Zeus to choose

the client with the smallest number of clients to handle the next request. However, this approach will not work for backend machines with widely differing performance figures. To avoid this shortcoming, there is a unique feature, 'locality aware request distribution' which makes clever use of the caches on the remote machines, trying to server data from machines that have already accessed the same data.

Whereas other balancers select a target (such as a Web server) based on one protocol only (such as http), the Zeus load balancer goes one step further. It inspects the incoming requests and might, for example, forward dynamic PHP pages to a different server than the one handling static pages.

### A Question of Talents

Of course everything has its price: a simple configuration – a Zeus balancer that can handle two backends – costs 4,800 Euro, whereas the top-notch configuration, with two Zeus balancers handling an arbitrary number of backends will set you back a hefty 13,500 Euro. Maintenance costs an extra 15 per cent of the list price on top, and standard support a further 30 per cent. Premium support will cost you 13,500 Euro plus 35 per cent of the list price of the software.

Admins with generous budgets can decide for themselves whether the obvious advantages of the Zeus

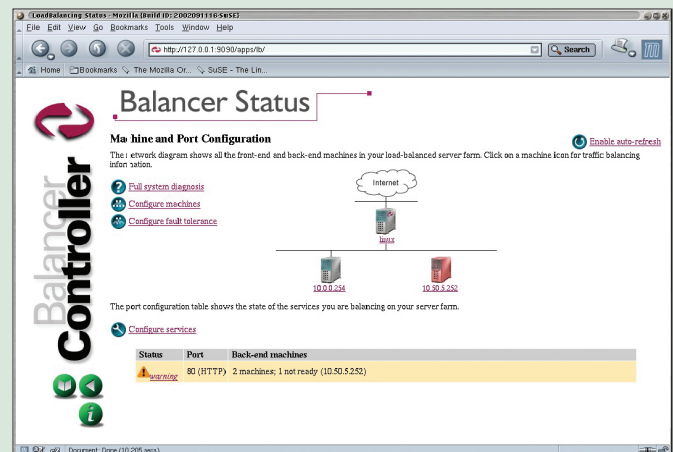


Figure 1: Zeus Load Balancer has an intuitive browser GUI

Loadbalancer are worth the money compared with a less fully-featured, but free, solution such as Pen. If money is not the issue, you might also consider a hardware based load balancer. Although the asking price may be on a par with a well known luxury car, the Olympians themselves would show some respect for the star on its hood.

### INFO

- [1] Zeus: <http://www.zeus.com>
- [2] Pen: <http://siag.nu/pen/>
- [3] Homer: "Odysseus" and the "Iliad":  
<http://digital.library.upenn.edu/webbin/gutbook/author?name=Homer>

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