The LoadMaster can share requests equally, or use weightings to distribute workload.

Kemp Technologies LoadMaster 1500

A wealth of web server load-balancing and traffic-management features; ideal for those on a tight budget

Web traffic-management appliances have traditionally been too expensive for smaller businesses, with prices often over five figures. Kemp Technologies aims to change all that, as its latest LoadMaster 1500 delivers web server load balancing, Layer 4/7 content switching, SSL acceleration for up to 100 transactions per second, plus support for 256 virtual and 1,000 physical servers.

The LoadMaster uses a similar concept to the Zeus Extensible Traffic Manager 7000 (*see issue 138, p171*), where virtual servers are employed to intercept web traffic. The same principles are applied here: multiple physical servers are assigned to each virtual server, and the appliance carries out load balancing across them. The appliance operates in either one- or two-armed modes; we opted for the latter, as we wanted our clients and virtual servers on a separate subnet to the physical servers.

Installation starts by providing basic information via a USB keyboard (you can connect a monitor) or via a serial port. Then you move over to the basic web interface. First, you define virtual servers with IP addresses, port numbers and protocols. Next, add physical servers; each is defined by its real IP address. We tested using standard Windows web servers and also those running webmail services, and had no problems assigning them to virtual servers. Our test clients just had to point their browsers at the virtual IP address and the relevant service loaded as normal.

The appliance supports five load-balancing modes and defaults to a round robin, which distributes inbound requests to each physical server in strict rotation. You can also apply weightings to each server, which gives more capable systems extra work and spreads new traffic to the least loaded. An agent-balancing mode requires each server to provide an ASCII file containing a numerical value of its current loading, and this is used to adapt the balancing parameters.

To maintain persistent connections, the appliance utilises a range of methods. Layer 4 inspection allows it to direct traffic to a specific physical server based on the source and destination addresses, and you can insist on a particular host always being directed to the same one. Layer 7 inspection offers finer controls, as the appliance determines persistent connections based on actual content, and you can use functions such as URLs and cookies to ensure a host is always directed to the same physical server.

Rules come in handy when you have a virtual server comprising multiple physical servers that don't provide the same content. HTTP content can be inspected and, if it contains requests for particular information, you can use a rule to direct the host to a specific server. Last but not least comes SSL acceleration, where the appliance terminates the connection and passes unencrypted traffic to the real servers, offloading the extra work of encryption.

The LoadMaster has its faults: the web interface could be better designed, while the hardware specification is very modest. Nevertheless, it offers a remarkable range of load-balancing and traffic-management functions that compare well with far more costly solutions. DAVE MITCHELL

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PERFORMANCE	★★★★☆☆
FEATURES & DESIGN	★★★★★☆
VALUE FOR MONEY	★★★★★☆
OVERALL	★★★★★☆

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