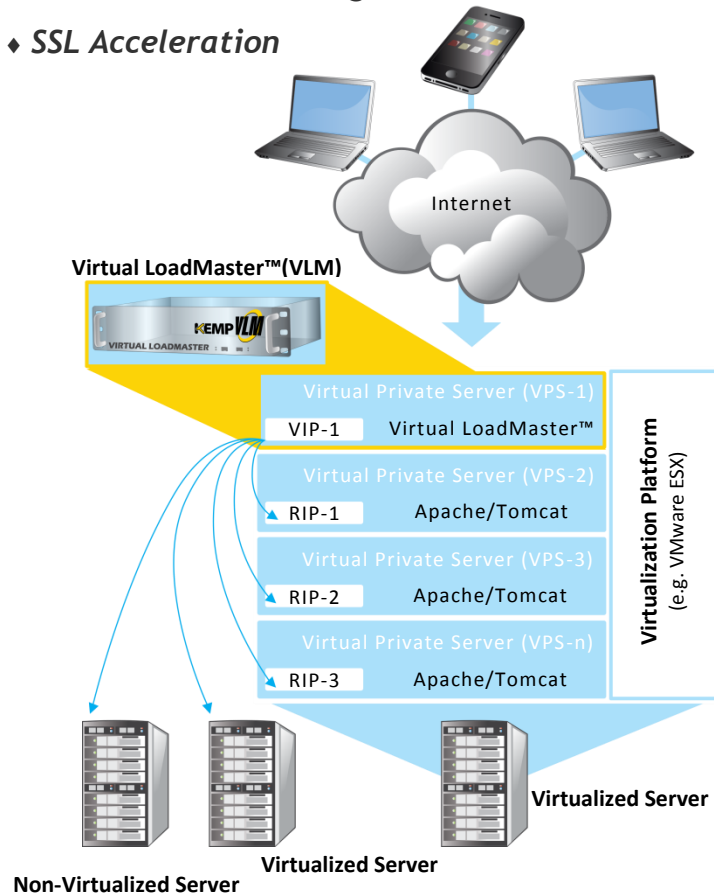


- ◆ *Application Delivery Optimization*
- ◆ *Server Load Balancing*
- ◆ *SSL Acceleration*



The Virtual LoadMaster™ (VLM) is a virtual appliance version of the award-winning LoadMaster™ family of advanced server load balancing and application delivery optimization appliances.

Virtual LoadMaster™ installs and runs as a hardened, 'Guest' operating OS/Application on a dedicated virtual machine. It provides the same features of the LoadMaster™ appliance including L4 load balancing, L7 content switching, SSL Offload, Server and Application Health Checking, IP and L7 Persistence, Caching, Compression, IPS and much more. It also supports stateful Active/Hot-standby configuration between two VLMs for redundancy and high-availability. All controlled by the same intuitive, easy-to-use Web User Interface as the hardware appliance version of the LoadMaster™.

The LoadMaster™ is an essential component of high availability, clustering and fault tolerance, all of which provide the infrastructure for reliable Internet sites and large corporate intranets.

Combining the latest advancements in Layer 4 and 7 server load balancing technology with high-performance hardware platforms, the LoadMaster™ is a value leader in purpose built Internet Traffic Management appliances.

Feature	Benefit
High Performance L4/7 Server Load Balancing	Ensures each user gets the best application experience possible
Active/Hot-Standby, with Stateful Failover	Provides 99.999% high-availability of application servers and removes SLB as single point of failure
Server Hardware and Application Health Checking	Guarantees user requests will be directed to only "available" servers AND "available" applications.
IP and L7 Persistence	Ensures that users maintain continuous connections with the specific server where "their" transactional data is available – even if the IP address changes during session
Layer 7 Content Switching	Enables site administrators to optimize server traffic according to content type (images, multi-media, apps)
SSL Acceleration/Offload	Optimized server performance and user experience for encrypted application content
Compression, Cache	Reduces latency associated with internal network while further optimizing performance over existing ISP link
Intrusion Prevention Systems (IPS)	Helps thwart application-level threats, even with SSL- encrypted traffic

## Standard

Server Load Balancing (SLB) for TCP/UDP based protocols  
Layer 7 Content Switching  
Advanced, App-Transparent Caching Engine for HTTP/HTTPS protocols  
Optimized Compression for Static and Dynamic HTTP/HTTPS Content  
Layer 7 Intrusion Prevention System (IPS), SNORT-Rule Compatible  
Up to 1000 Virtual Services  
IPv6 support for addressing and features  
IPv6 - IPv4 bidirectional conversion  
NAT-based forwarding  
Support for Direct Server Return (DSR) configurations  
Support for MS Terminal Services with Session Reconnection Built-in  
Configurable S-NAT support  
VLAN Trunking (802.1Q)  
Link Interface Bonding (Modes supported: 802.3ad, Link Failover)

## SSL

Support for EV (Extended Validation) Certificates  
PCI-DSS ready SSL Implementation  
Support for up to 1000 SSL Certificates  
Support for Third Party Certificates  
Automated SSL Certificate Chaining  
SSL Certificate Signing Request (CSR) Generation  
STARTTLS offload for mail protocols (POP3, SMTP, etc.)  
FIPS 140-2 Level 1 capable

## Health Checking & High Availability

ICMP health checking of servers  
Layer 7 checking for DNS, FTP, HTTP, IMAP, NNTP, POP3, SMTP, WTS (RDP), TELNET  
Automatic reconfiguration for defective real servers

## Administration

Fully configurable using Web User Interface (WUI)  
Secure, SSH and HTTPS (WUI) remote access for administration  
Easy start and maintenance using wizards  
WUI-based Help Assistant  
Virtual Service Configurations can be edited and tuned on-the-fly  
Real time performance and availability displays  
Preconfigured Applications templates



Console port for local administration  
Remote syslogd support  
Selective restore of LoadMaster™ and Virtual Service data  
Support for Connection Draining  
Download software updates for LoadMaster™ firmware  
WUI Log Reporting with Tabbed Browser Support  
SNMP support for event traps & performance metrics  
Diagnostic shell with in-line tcpdump

## Scheduling and Balancing Methods

Round Robin  
Weighted Round Robin  
Least Connection  
Weighted Least Connection  
Agent-based Adaptive  
Chained Failover (Fixed Weighting)  
Source-IP Hash  
Layer 7 Content Switching

## Sticky (Persistence) Connection Options

Source IP (L4)  
SSL SessionID (L4)  
HTTP/HTTPS Browser-session (L7)  
HTTP/HTTPS WebClient-session (L7)  
RDP Login ID (L7)  
Port Following for mixed HTTP/HTTPS sessions

## Security Functionality

Layer 7 Intrusion Prevention System (IPS),  
SNORT-Rule Compatible  
Global & per VS Black list and White list (Access Control List)  
IP address filtering  
Firewall filtering (everything forbidden except VS's)  
DDoS mitigation, including L7 rate based attacks

\* Specifications are subject to change without prior notice.