zeus

ZXTM

ZXTM LB

Zeus Extensible Traffic Manager
ZXTM Version 5.1

ZXTM Load Balancer
ZXTM LB Version 5.1

Features and Specifications

ZXTM and ZXTM LB Product Specifications

	ZXTM LB	ZXTM
Scalability:		
Active/Active and Active/Passive	Yes	Yes
TrafficCluster size	2 active units	64 active units
Application Cluster size	4, 12 or Unlimited (options)	Unlimited
Load Balancing:		
Supported Protocols	All TCP and UDP protocols; IPv4 and IPv6; HTTP, HTTPS, SOAP, FTP, SMTP, SIP, RTSP, DNS, custom, etc.	
Layer-7 load balancing	Yes	Yes
Session Persistence	Yes	Yes
SSL decryption and encryption	Yes	Yes
Application Acceleration	Yes	Yes
Service Protection	Yes	Yes
Application Health Monitoring	Yes	Yes
Traffic Management:		
Traffic Management rules:	RuleBuilder^{TM} rules	RuleBuilder^{TM} & TrafficScript^{TM} rules; Java^{TM} Extensions
Entire request and response control	No	Yes
Rate Shaping	No	Yes
XML processing	No	Yes
SOAP Control API	No	Yes
Content Caching	No	Option
Bandwidth Management	No	Option
Service Level Monitoring	No	Option
Application Firewall Module	No	Option
Supported Platforms:		
Software	Linux x86, Solaris x86, Solaris SPARC	
Virtual Appliance	VMware Virtual Infrastructure 3	
Cloud	Any supported Cloud Infrastructure platform	

ZXTM LB can be upgraded to ZXTM seamlessly by means of a new license key. No software installs are required and no downtime will be incurred.

ZXTM and ZXTM LB Product Features

Ease of use	• Secure, resilient, web-based GUI, with wizards to simplify common tasks • Simple, fast deployment with automatic ZXTM TrafficCluster™ detection • Secure configuration replication within a ZXTM TrafficCluster™ • Catalogs for easy storage and reuse of common configuration
Protocols supported	• All TCP and UDP protocols, including any SSL or TLS-wrapped TCP protocol • IPv4 and IPv6
Server Load Balancing	• Layer 7 load balancing • Choice of load-balancing algorithms and parameters on a per-pool basis including: round-robin, weighted round-robin, least connections, weighted least connections, fastest response time, random, perceptive • Cache affinity load-balancing algorithms • Slow start for node introduction / reintroduction (perceptive load balancing) • Connection draining for removing nodes from server pools non-disruptively • IP transparency preserves original source address of client (not on Solaris software)
Application Acceleration	• Optimized connection handling removes the overhead of handling sessions with slow clients • HTTP Optimizations select the best possible HTTP support for clients and servers independently • HTTP Multiplexing ensures rapid responses while minimizing connection load on servers • TrafficScript request and response inspection features fully compatible with all HTTP variants and optimizations, such as chunked transfer encoding and compressed responses. • On-the-fly content compression applied to any compressible content type • HTTP content caching (ZXTM option)
Front-end fail-over and scalability	• TrafficCluster™: 2 ZXTM LB units or Unlimited ZXTM units in any combination of active and/or passive combinations • Performance scales linearly with number of ZXTM units and number of cores / processors • Protection from multiple compound failures (ZXTM only)
Back-end fail-over	• Routes requests away from overloaded or unavailable servers to healthy servers with available capacity • Predefined and customizable per-service, per-pool and per-machine fail-over actions • Configurable failure pools and priority lists give full control of failover between servers and pools
Session Persistence	• Wide choice of predefined and customizable session persistence methods • Application-specific session persistence methods: JSESSIONID and ASP/ASP.NET • Traffic management rules allow persistence based on any parameter or value in the request • Automatic session detection dynamically sets up cluster–aware persistence • Supports clustering of applications such as BEA WebLogic, IBM WebSphere, Oracle 9i and many others • Ensures that legacy applications can be deployed safely in a fault-tolerant cluster • Resilient session replication across a TrafficCluster™
SSL Termination	• High-performance software SSL stack optimized for AMD, Intel and SPARC processors • SSL decryption and back-end encryption for end-to-end security • Allows traffic management intelligence and load balancing to be applied to encrypted traffic • Filters encrypted traffic for malicious content, web viruses and application security attacks • Support for nCipher NetHSM for FIPS 140-2 level 3 compliant tamper-proof key management
Performance Monitoring	• Customizable, real-time performance monitoring of ZXTM and back-end infrastructure • Fully integrated with SLA and Bandwidth management (ZXTM options) • Real-time traffic visualization and trending via GUI • Performance data available through GUI, SNMP and Control API for visualization and monitoring
Health Monitoring	• Predefined and customizable active application health monitors • Powerful, customizable actions (including SNMP, email, SYSLOG, SOAP and custom) in the event of a node failure • Continually monitors the health and status of ZXTMs and back-ends, including applications and services behind the servers which communicate with ZXTM directly • Requests automatically diverted away from unhealthy servers • Recovered servers automatically and gradually reintroduced
Application Verification	• Server response verification to detect error codes or other specified data in responses • Traffic manager takes account of response validity in routing decisions
Service Protection	• Connection and rate limiting protects against Denial of Service and Distributed Denial of Service attacks • Heuristics protect against malformed URL attacks, buffer overrun attempts and invalid HTTP requests • IP black and white lists to control and fine-tune anti-denial-of-service protection • TrafficScript service protection rule enables custom actions to be taken • Configuration allows fine-tuning of service protection, including test and debug modes
RuleBuilder™	• GUI-based creation of traffic management rules • Content-based traffic routing • URL, HTTP header and HTTP cookie rewriting • Session Persistence, SLM, Bandwidth and Cache control • Rules are stored in the Catalog for reuse and easy deployment to multiple virtual servers

ZXTM Product Features

TrafficScript™ (ZXTM only)	- Intuitive traffic inspection, manipulation and routing language - Unlimited content inspection depth for all TCP/UDP protocols, including native support for XML / XPath - Analyze and rewrite entire client requests and server responses - Enables business policies to be translated into traffic management actions - Base traffic management decisions on origin, destination, content type or any part of the request content - Provides protocol-specific functions - Automatically decompresses and reassembles chunked and compressed HTTP content - Rich logical expressions allow modelling of complex routing decisions - Forward proxy mode allows inspection, manipulation and routing of outbound traffic to arbitrary destinations - Preview and convert RuleBuilder™ rules into TrafficScript™ rules with a single click
Java™ traffic management Extensions (ZXTM only)	- Full traffic control and manipulation using Java™ Extensions - Java Extension API uses familiar 'Servlet' specification - High-performance integration with ZXTM traffic management kernel - Allows for use of any Java class libraries, e.g. database access, XML processing, document watermarking - Java Extensions can be called conditionally from TrafficScript
Request Rate Shaping (ZXTM only)	- Define maximum limits on request rates, globally or per user - Apply rate limits dynamically, using TrafficScript™ - Protect application infrastructure from being overwhelmed with requests - Enforce differentiated levels of service per user or by class of users - Prevent malicious or greedy clients from impacting shared services
Web Services / XML (ZXTM only)	- Supports .NET, SOAP, XML-RPC, J2EE - TrafficScript provides native support for analysis and transformation of both XML client requests and server responses - Embedded XPath query engine allows interpretation of XML content and makes traffic routing decisions based on the business logic of XML data - Supports offload of XSLT processing for translation between XML dialects
Control API (ZXTM only)	- Open standards SOAP API allowing ZXTM to drive and be driven by other applications and network devices - Automate regular tasks in ZXTM - Ensures tight integration into existing NOC, hosting, provisioning, network and application systems - Provision and add extra server capacity on-demand when ZXTM detect service level non-conformance
Service Level Monitoring (ZXTM option)	- Active, real-time monitoring of transactions - Set service level performance thresholds on a per-service basis - Provides support for differentiated services offerings - Service level classes stored in the Catalog for easy deployment to multiple virtual servers - Apply service level classes dynamically to traffic using TrafficScript™ - Alerting / logging / custom remedial actions if performance falls outside of service level limits
Bandwidth Control (ZXTM option)	- Active, real-time bandwidth management - Enforce per-virtual server bandwidth limits - Bandwidth classes stored in the Catalog for easy deployment to multiple virtual servers - Apply bandwidth classes dynamically to traffic using TrafficScript™ - Bandwidth usage information is shared around a ZXTM TrafficCluster™ - Note: not available on Solaris software
Content Caching (ZXTM option)	- Store local copies of frequently-accessed web content to reduce transit times and bandwidth usage - Fine-grained control over which pages are cached from a web server - Automatic caching of page variants for compressed/uncompressed content, language-negotiated pages, etc. - Differentiated caching of pages to ensure separation of public/private content, user access rights, etc.
Application Firewall Module (ZXTM option)	- Full Web Application Firewall providing security to PCI DSS standards - Simultaneous protection (active) and detection (passive) modes - Multiple wizards for easy configuration - Expert mode for fine-tuning of security policies and rulesets

Zeus. Why wait...