

NEXT GENERATION LOAD BALANCING & APPLICATION TRAFFIC MANAGEMENT

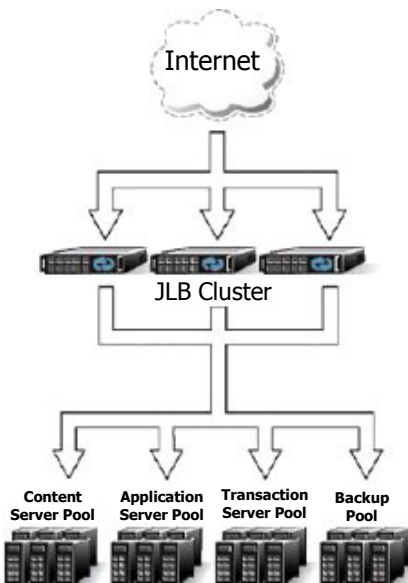


JetNEXUS
ENTERPRISE
LOAD BALANCER

Product Overview

The jetNEXUS Enterprise Load Balancer is a powerful, fully fault tolerant and high performance load balancing solution for providers of clustered network services and mission critical applications.

Application Areas



- jetNEXUS Load balancer is deployed in active clusters to protect you against hardware failures.
- Each jetNEXUS ELB unit monitors the health of its paired unit and each of the back-end servers.
- Incoming traffic is accepted by an incoming server.
- SSL requests are decrypted and re-encrypted if required.
- Rules are used to inspect the request and sent to an appropriate server in the pool.
- Traffic is then distributed across the server pool using one of a variety of load balancing algorithms.

Key Benefits

With content aware, traffic management rules, flexible health monitoring, SSL and content compression, the jetNEXUS Enterprise Load Balancer provides an easy to use and cost effective path to add load balancing intelligence to your organisation.

Resilient Load Balancing

If a server goes down, you need to know your websites will keep running. By deploying a fault tolerant cluster of jetNEXUS Load Balancers and ensuring sufficient redundancy in your server farm, you can protect yourself against hardware and software failures.

Using floating Traffic IP addresses, jetNEXUS ELB's receive traffic and each load balancer in a fault tolerant pair, monitors its partner and protects against failure of back-end service nodes. If one machine were to fail, the other balancer takes over. Similarly, the jetNEXUS ELB handles server failure by redirecting traffic to a different, healthy machine when:

- It cannot connect to the back-end
- The back-end unexpectedly closes the connection
- The back-end fails to respond to the connection

If any of these conditions occur repeatedly, the jetNEXUS ELB will stop sending traffic to the back-end machine, mark it as 'dead' and raise an alert to the systems administrator. In time it will speculatively send traffic to the failed machine and if it does respond, jetNEXUS ELB will gradually increase the number of connections until it is fully introduced back into the cluster.

Application Acceleration

The jetNEXUS Enterprise Load Balancer dramatically improves the performance and scalability of application services including web mail, news, FTP and database protocols just by being placed in front. Applications are accelerated in a variety of ways, including:

- **SSL Offload**— by processing SSL traffic, the jetNEXUS ELB frees up application servers to spend more time performing their own specialist tasks.
- **WAN Offload**— by accelerating and condensing the number of incoming connections, jetNEXUS ELB enables your application to handle more requests with fewer connections.
- **Content Compression**— by compressing content before it is sent to clients, jetNEXUS ELB reduces the burden on your networking infrastructure.

In testing, a single jetNEXUS Load Balancer hardware achieved:

- Over 3 Gbit/s throughput
- Over 8,000 SSL transactions per second

Technical Specifications



Cluster Size

- Up to 2 active jetNEXUS ELB units.
- Options for 4, 12 or unlimited back-end IP addresses.



Customer Testimonials

"Looking back now I just do not know how I would have achieved all this in the time required to support our peak booking period without my 2 jetNEXUS Enterprise Traffic Managers! These appliances are very much loved now."

-Jeremy Stancombe, IT Manager, Bourne Leisure

jetNEXUS was a clear choice for us and their solution was a clear winner for a 24x7 business".

- Mark Wilding, Operations Director, Intellitracker

We chose jetNEXUS hardware appliances because they managed our client sessions intelligently and reliably whilst improving performance.

- Nick Whately, CTO, SMART.

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Key Features



Ease of Use

- Secure, resilient, web based GUI including wizards to simplify common tasks.
- Simple, fast deployment with automatic jetNEXUS Load Balancer detection.
- Fully customisable active application monitoring.
- SNMP support for easy integration into existing monitoring systems.



Flexible Configurations

- Group related back-end servers into named pools.
- Define traffic management parameters and actions on a per-pool basis.
- Vast choice of back-end fail-over configurations and actions.
- Straightforward back-end application partitioning for performance improvement of large scale-scale application server deployments.



Load Balancing Rules

- Intuitive traffic inspection, manipulation and routing rules.
- Visual UI (Rulebuilder) provides wizards for simple rule creation and configuration.
- Translates business policies into traffic management actions.
- Rules are stored in the catalogue for easy deployment to multiple servers.



Server Load Balancing

- Layer 7 Load Balancing.
- Selectable load-balancing algorithms and parameters on a per-pool basis.
- Load balancing algorithms include: round-robin, weighted round-robin, least connections, fastest response time, random, perceptive and more.
- Cache affinity load-balancing algorithms.
- Connection draining for removing servers from cluster non-disruptively.



Failover and scalability

- Resilient active-active and active-standby pairs.
- Protection from hardware failures.
- Re-routes requests away from overloaded or unavailable servers with available capacity, ensuring network problems are invisible to end users.
- Pre-defined and customisable per-service, per pool and per-machine fail-over actions.
- Pool prioritisation ensures there is always enough capacity to service demand.



Session Persistence

- Wide choice of pre-defined and customisable stateful session persistence methods.
- Full support for HTTP, SSL and protocol independent specific sessions.
- Automatic detection when session persistence is needed and dynamically sets up cluster aware persistence.



Application Acceleration

- Unique connection handling takes load away from back-end servers and applications, removing the overhead of handling sessions with slow clients.
- Accelerates application servers by as much as 10x.
- On the fly content compression applied to any compressible content type.



Performance and Health Monitoring

- Customisable, real-time performance monitoring of jetNEXUS ELB's & back-end infrastructures.
- Recovered servers automatically and gradually introduced.
- Takes account of server and application performance in routing decisions.
- Real-time traffic visualisation and trending via GUI and SNMP.



Service Protection

- Protect against web worms and viruses
- Protection against malformed URL and XML-based attacks.
- Access restriction for specific IP addresses or ranges of IP addresses.
- Real-time monitoring, threat analysis reporting and alerting.
- Extensive, configurable, attack logging.