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Key Benefits

- **Accelerate end to end web application delivery**
- **Reduce bandwidth consumption and costs**
- **Accelerate SSL transactions**
- **Ensure web server availability**
- **Manage and optimise application performance**
- **Increase server capacity**
- **Improve modem, GPRS, and satellite performance**
- **Improve branch office access**
- **Reduce requirement for application re-writes**
- **Increase browse to buy ratios**

Application Areas

jetNEXUS accelerates most web application components, including but not exclusive to the following:

- **eCommerce:** Most commercial ecommerce platforms
- **eCRM:** Microsoft CRM, Onyx, Oracle, Peoplesoft, SAP, Siebel
- **ERP:** BAAN, IFS, Oracle, Peoplesoft, SAP
- **Content Management:** Documentum, IBM, Microsoft, Percussion, Plumtree, Immediacy, Reddot
- **eMail:** Lotus iNotes, Outlook Web Access, Most web based email applications
- **Custom Web Applications:** Most legacy web applications using http/https protocols
- **Portals:** Hummingbird, IBM, Interwoven, Microsoft, Novell, Plumtree, SAP, Sun, Sybase, Vignette
- **Intranets:** Lotus Notes, Microsoft Sharepoint, Most Intranet Applications
- **Extranets:** Lotus Notes, Microsoft Sharepoint, Most Extranet Applications

Customer Testimonials

"We have seen a fall of 30% in page download times – and a reduction of 60% in bandwidth consumption" - **Marks & Spencer**

"Despite massive savings on bandwidth and infrastructure, the major benefit of jetNEXUS is pure business acceleration" - **Confetti.co.uk**

Product Overview

jetNEXUS Accelerator provides a front end for your web infrastructure that resolves performance, availability and security issues

Performance:

At the heart of the jetNEXUS product philiosophy is the focus on improving application performance through compressing data streams, maximising throughput, monitoring traffic flows, and prioritisation of traffic – all at low levels of CPU utilisation. jetNEXUS uses a number of techniques including HTTP/HTTPS compression and packet optimisation to massively accelerate the delivery of web applications to a users browser.

Performance is improved in some instances by over 400%, and the result is an outstanding user experience in terms of response times and application performance.

jetNEXUS enables organisations to deploy content and function rich web applications, confident in the knowledge that application delivery speed will be excellent.

Availability:

jetNEXUS products use a combination of network traffic optimisation, a variety of load balancing techniques and failover strategies that guarantee that your servers will remain operational and serving your users, ensuring high availability, total reliability and reduction of CPU overhead.

Security:

The exceptional SSL offload capabilities of jetNEXUS Accelerator enable off server encryption, message integrity, authentication and key exchange services. As an SSL accelerator, jetNEXUS resolves the issue of site or server performance degradation caused by running SSL in software or on your web server.

jetNEXUS solutions can also provide an additional layer of abstraction from the web server to the outside world, providing firewall capabilities and deep packet inspection. This ensures that many types of invalid requests are not forwarded to the web server.

Management:

The jetNEXUS management console can provide logging, statistics and reporting on inbound and outbound traffic in real-time.

jetNEXUS allows complete system, administration via a secure remote administration console and the detailed audit logs provide information that can be invaluable to administrators or a security team.

Installation and management of the jetNEXUS appliance through the web user interface is quick and simple, allowing rapid deployment, and a low overhead in terms of ongoing management and administration requirements.

Value:

jetNEXUS Accelerator represents excellent value for money. What you're paying for with a jetNEXUS solution is the fact that our technology is tried, tested and battle hardened on many of the largest enterprise web infrastructures in the world, owned by people who want results, not marketing gimmicks. Our solutions have been benchmarked against and outperformed the most expensive solutions on the market today.

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Content Acceleration

- Highly efficient acceleration algorithms ensure superb page delivery times while under significant load.
- Rule based compression detects and compensates for browser behavioural differences and defects, therefore guaranteeing accelerated pages can be displayed correctly by the client's browser.
- Supported by all standard web browsers and requires no client component. Browsers supported include MS IE 4.0+, Netscape 4.0+, Opera and Fire-Fox.
- Accelerate HTML, SHTML, DHTML, JHTML, PHTML, SOAP, J2EE, JSP, ASP, ASPX, CSS, Javascript, XML and more.
- Accelerate Office Documents (DOC, XLS, PPT, etc.) as well as configurable MIME types.
- Direct HTTP 1.0 and HTTP 1.1 Acceleration
- Can act on HTTP headers, POSTS, SOAP, HTML, JavaScript, etc.
- Accelerate HTTP 1.1 through HTTP 1.0 Proxies and Caches (e.g. Squid, MS ISA, etc.)
- Accelerate through Personal Firewalls
- Streaming Compression with full support for chunking
- Content Exclusions - by rule (e.g. /site sub-folder/*.js) or by header added to specific pages
- Inline Content Substitution
- B2B acceleration between any two jetNEXUS appliances in a multi-point accelerator network including the acceleration of uploaded POST data (not just GETs)
- Web services (server to server) protocols including SOAP.

Load Balancing

- Multiple Load Balancer Groupings by Channel supporting HTTP/HTTPS (Layer 7)
- Supports multiple load balancing strategies - Round Robin, Least Connections, IP Sticky and Cookie Sticky
- Automated per-channel fast failover

SSL Offload

- High Performance SSL Offload
- Centralized Certificate Management including Import/Export of pre-existing IIS & Apache certs and generation of of Cert Requests (i.e. for Thawte, Verisign, etc.)
- Certificate Authority for test certificates
- Certs can be assigned on a per Channel basis and to multiple Channels.

Security

- Fully penetration tested to ensure maximum security of the appliance and supporting environment.
- Dynamically inspects, verifies and re-writes client requests or server responses for improved security. Validation of request data from clients prevents the transfer of packet fragments to servers and stops malformed requests (e.g. zero-length requests, etc.)
- Infected Servers are blocked from initiating dialogue to clients through Accelerator
- Two distinct sets of connections are maintained - one set to client requests and another with content resources. This prevents connections external to your site from ever directly accessing content servers and similar resources.
- Aggressive buffer overflow inspection and protection to prevent common exploits and attacks.

Performance and Capacity

Multi-Channel Operation

- Accelerator Channels can support up to 24 completely independent systems on each appliance. Accelerator Channels allow for maximum flexibility when implementing complex infrastructure solutions.
- Each channel can be individually monitored by any other device in a redundant array of Accelerators. This allows for fail-over of a Channel basis rather than the whole appliance.
- Operating capacity is up to 120 Mbps of total throughput supporting up to 15,000 established connections with up to 2,000 satisfied HTTP and 200 satisfied HTTPS requests per second per channel (up to 24 channels)

Connection Management

- Connection Pooling to reduce connection overheads to content servers - typically 1 connection for every 100 - 1000 clients (configurable)
- Never-close connections eliminate unnecessary slow-starts for faster data delivery
- Connection Capping applies a per-channel limit to maximum concurrent connections (configurable).

High Availability

- High Availability Active-Active Array as well as Active-Passive per appliance fail-over
- Self healing mesh of appliances actively processing traffic to one or more Accelerator Channels with cascading fail over
- Linear Scaling - only deploy one additional Accelerator into an array (rather than a pair) for additional scaling and resilience

Monitoring and Management

- Intuitive interfaces allow for easy setup, management and monitoring. Includes an HTTP/HTTPS Web Console with password protection & online help. Serial and SSH CLIs (command line interfaces) can be enabled. An MS Windows based Discovery application that scans for all Accelerators present on the local network is also provided.
- NIC Management options (Dual Homed) include Speed (Auto/10/100/1000), Duplex (Auto, Half, Full), custom NIC options (configuring firmware), Gateway assignment per NIC (current routes displayed), Static Routing, NAT and Port Forwarding.
- Optional support for a separate management NIC/LAN (in addition to dual homing)
- Appliance Updates via HTTP and HTTPS
- Accelerator configuration backup and restore via HTTP and HTTPS
- High Visibility Dashboard for system status and alerts
- eMail Alerts for key events such as environmental, fail-over and restarts
- jetNEXUS Accelerator specific MIB for SNMP including information on Throughput, Compression, Connections, CPU Usage, Disk Usage and Memory Statistics (SNMP v1,2 and 3 supported)
- Fully compliant W3C Web Transaction Logging with extended fields including time taken by jetNEXUS and round trip time (RTT)
- "X-Forward for:" source IP forwarding (including optional companion filter for IIS servers) for compatibility with web reporting tools (e.g. WebTrends, SawMill, etc.)
- System activity logging provides configurable levels of system logging from simple log mode to full diagnostic mode.
- Automatic Log File Management - System and Web log files are automatically backed up in compressed form and recycled on a periodic basis without user intervention.
- Remote Log File Storage allows log files to be stored on remote management servers.
- Environmental monitoring/reports including CPU Temperature, Fan operation, Network errors, supported by eMail Alerts
- Reporting statistics available by second, minute, hour, day, month and year. Data on peak loads for connections, users, requests, SSL, bandwidth, etc. to assist with capacity planning.