

Make Web applications run five times better

Citrix NetScaler


NetScaler is a Web application delivery appliance that makes applications five times better by accelerating performance, ensuring that applications are always available and protected, and substantially lowering costs.

Citrix NetScaler Application Delivery products are easily selected by determining the edition providing functional needs and the appropriate hardware platform to fulfill performance needs.

| | Platinum Edition | Enterprise Edition | Standard Edition |
|-------------------------------------|--|--|----------------------------------|
| Lower TCO | | | |
| TCP buffering | • | • | • |
| TCP multiplexing | • | • | • |
| SSL offload and acceleration | • | • | • |
| Cache redirection | • | • | |
| Citrix EasyCall™ | • | | |
| Application acceleration | | | |
| Client and server TCP optimizations | • | • | • |
| Citrix® AppCompress™ for HTTP | • | • | • |
| Citrix® AppCache™ | • | • | |
| Citrix® WanScaler™ client | • | | |
| Application security | | | |
| L4 DoS defenses | • | • | • |
| L7 content filtering | • | • | • |
| HTTP rewrite | • | • | • |
| URL rewrite | • | • | • |
| Access Gateway, EE SSL VPN | • | • | • |
| L7 DoS defenses | • | • | |
| NetScaler Application Firewall | • | • | |
| Application availability | | | |
| L4 load balancing | • | • | • |
| L7 content switching | • | • | • |
| AppExpert rate controls | • | • | • |
| IPv6 | • | • | • |
| Global server load balancing (GSLB) | • | • | • |
| Dynamic routing protocols | • | • | |
| Surge protection | • | • | |
| Priority queuing | • | • | |
| Simple manageability | | | |
| AppExpert visual policy builder | • | • | • |
| AppExpert service callouts | • | • | • |
| AppExpert templates | • | • | • |
| Role-based administration | • | • | • |
| Configuration wizards | • | • | • |
| Citrix EdgeSight™ for NetScaler | • | • | |
| Available hardware platforms | | | |
| | MPX-17000, MPX-15000, 12000, 10010, 9010, 7000 | MPX-17000, MPX-15000, 12000, 10010, 9010, 7000 | MPX-17000, MPX-15000, 9010, 7000 |

• = Standard • = Option

Citrix NetScaler Application Delivery Systems products are available on a range of hardware platforms to meet any deployment need.

| Hardware Platforms | MPX-17000 | MPX-15000 | 12000 |
|---|---|---|---|
| |  |  |  |
| Editions | | | |
| Platinum Edition | • | • | • |
| Enterprise Edition | • | • | • |
| Standard Edition | • | • | |
| Platform attributes | | | |
| Processor | Eight (Two quad-cores) | Four (Two dual-cores) | Dual |
| Memory | 32 GB | 16 GB | 4 GB |
| Ethernet ports | 4x 10 GIGABIT FIBER (XFP) OPTICAL AND 1x 1000/100/10BASE-T (MGMT) OR 2x 10 GIGABIT FIBER (XFP) OPTICAL AND 8x 1000/100/10 BASE-T AND 1x 1000/100/10BASE-T (MGMT) | 2x 10 GIGABIT FIBER (XFP) OPTICAL AND 8x 1000/100/10 BASE-T AND 1x 1000/100/10BASE-T (MGMT) | 8x1000 (SFP) Cu or 8x1000 (SFP) Fiber or 4x1000 (SFP) Cu + 4x1000 (SFP) Fiber 1x10/100 (Mgmt) 2x10 Gigabit Fiber (XFP) available |
| FIPS support | | | |
| Platform performance | | | |
| HTTP requests/sec | 340,000 | 340,000 | 275,000 |
| SSL transactions/sec | 48,000 | 48,000 | 28,000 |
| SSL throughput, Mbps | 6,000 | 6,000 | 3,000 |
| Compression throughput, Mbps | 6,000 | 3,000 | 1,300 |
| System throughput, Mbps | 15,000 | 15,000 | 6,000 |
| Platform mechanical, environmental and regulatory | | | |
| Power supplies | Dual | Dual | Dual |
| Input voltage and frequency ranges | 100-240VAC full range, 47-63 Hz | 100-240VAC full range, 47-63 Hz | 100-240VAC full range, 47-63 Hz |
| Power consumption | 700w 2390.63 BTU/Hr | 700w 2390.63 BTU/Hr | 500w 1707.59 BTU/Hr |
| Weight, lbs | 52 | 52 | 52 |
| Height | 2U | 2U | 2U |
| Width | EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets | EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets | EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets |
| Depth | 18.5" / 47cm | 18.5" / 47cm | 24" / 61cm |
| Operating temperature | 0-30C | 0-30C | 0-50C |
| Allowed relative humidity | 10%-90%, non-condensing | 10%-90%, non-condensing | 5%-95%, non-condensing |
| Safety certifications | UL, TUV-C | UL, TUV-C | UL, TUV-C |
| Electromagnetic emissions certifications and Susceptibility standards | FCC (Part 15 Class A), DoC, CE,VCCI, CNS, AN/NES | FCC (Part 15 Class A), DoC, CE,VCCI, CNS, AN/NES | FCC (Part 15 Class A), DoC, CE,VCCI, CNS, AN/NES |
| Compliance | RoHS | RoHS | RoHS |

| Hardware Platforms | 10010 | 9010 | 7000 |
|--|--|---|---|
|  | | | |
| Editions | | | |
| Platinum Edition | • | • | • |
| Enterprise Edition | • | • | • |
| Standard Edition | | • | • |
| Platform attributes | | | |
| Processor | Single | Single | Single |
| Memory | 4 GB | 2 GB | 1 GB |
| Ethernet ports | 4x10/100/1000BASE-T + 4x1000 (SFP) Cu or 4x10/100/1000BASE-T + 4x1000 (SFP) Fiber 1x10/100 (Mgmt) | 4x10/100/1000BASE-T or 4x1000 (SFP) Fiber 1x10/100 (Mgmt) | 2x10/100/1000BASE-T + 6x10/100 |
| FIPS support | | Available | |
| Platform performance | | | |
| HTTP requests/sec | 250,000 | 125,000 | 50,000 |
| SSL transactions/sec | 8,800 | 4,400 | 4,400 |
| SSL throughput, Mbps | 760 | 500 | 150 |
| Compression throughput, Mbps | 555 | 400 | 150 |
| System throughput, Mbps | 4,800 | 3,000 | 600 |
| Platform mechanical, environmental and regulatory | | | |
| Power supplies | Dual | Dual | Single |
| Input voltage and frequency ranges | 100-240VAC full range, 47-63 Hz | 100-240VAC full range, 47-63 Hz | 100-240VAC full range, 47-63 Hz |
| Power consumption | 500w 1707.59 BTU/Hr | 500w 1707.59 BTU/Hr | 250w 853.8 BTU/Hr |
| Weight, lbs | 52 | 52 | 28 |
| Height | 2U | 2U | 1U |
| Width | EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets | EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets | EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets |
| Depth | 24" / 61cm | 24" / 61cm | 18.75" / 47.6cm |
| Operating temperature | 0-50C | 0-50C | 0-50C |
| Allowed relative humidity | 5%-95%, non-condensing | 5%-95%, non-condensing | 5%-95%, non-condensing |
| Safety certifications | UL, TUV-C | UL, TUV-C | UL, TUV-C |
| Electromagnetic emissions certifications and susceptibility standards | FCC (Part 15 Class A), DoC, CE,VCCI, CNS, AN/NES | FCC (Part 15 Class A), DoC, CE,VCCI, CNS, AN/NES | FCC (Part 15 Class A), DoC, CE,VCCI, CNS, AN/NES |
| Compliance | RoHS | RoHS | RoHS |

Technical aspects

L4-7 traffic management

Layer 4 load balancing (LB)

- Protocols supported: TCP, UDP, FTP, HTTP, HTTPS, DNS (TCP and UDP), SIP (over UDP), RTSP
- Algorithms: Round Robin, Least Packets, Least Bandwidth, Least Connections, Response Time, Hashing (URL, Domain, Source IP, Destination IP, and CustomID), SNMP-provided metric, Server Application State Protocol (SASP)
- Session persistence: Source IP, cookie, server, group, SSL session, SIP CALLID, Token-based, JSESSIONID
- Session protocols: TCP, UDP, SSL_TCP
- Server monitoring: Ping, TCP, URL, ECV, scriptable health checks, Dynamic Server Response Time
- Link load balancing

Layer 7 content switching

- Policies: URL, URL Query, URL Wildcard, Domain, Source/ Destination IP, HTTP Header, Custom, HTTP and TCP Payload Values

Rate-based policy enforcement

- Trigger NetScaler policies based upon connections per second, packets per second, or bandwidth used
- Source or destination-based upon header or payload information

Global server load balancing (GSLB)

- Algorithms: site health, geographic proximity, network proximity, AG-E SSL VPN users
- Site health checking on status, connection load, packet rate, SNMP-provided metrics

Content rewriting

- Policy-based bidirectional rewriting of HTTP header and payload elements
- Policy-based redirection of incoming requests
- Body URL rewrite

Application acceleration

TCP optimization

- Multiplexing, Buffering, Connection Keep-alive, Windows Scaling, Selective Acknowledgement

Appcompress

- GZIP-based compression for HTTP traffic
- Compression of encrypted data

AppCache¹

- Caching for static and dynamic application content
- HTTP GET and POST method support
- Policies defined based upon HTTP header and body values

Application security

DDoS attack defense

- Continue service to legitimate users while protecting against attacks such as: SYN Flood and Ping of Death
- ICMP and UDP rate control

Surge protection and priority queuing¹

- Adaptive rate control for TCP connections and HTTP requests
- Prioritized transaction dispatch for critical application requests

Packet filtering

- Layer 3 and 4 Access Control Lists (ACL)
- Network Address Translation (NAT)
- Positive security via denial of nonconfigured services

Citrix NetScaler Application Firewall¹

- Positive security model protects against: Buffer Overflow, CGI-BIN Parameter Manipulation, Form/Hidden Field Manipulation, Forceful Browsing, Cookie or Session Poisoning, Broken ACLs or Weak Passwords, Cross-Site Scripting (XSS), Command Injection, SQL Injection, Error Triggering Sensitive Information Leak, Insecure Use of Cryptography, Server Misconfiguration, Back Doors and Debug Options, Rate-based Policy Enforcement, Well-known Platform Vulnerabilities, Zero-day Exploits
- XML security: XML Denial of Service (xDoS), XML SQL injection and cross site scripting XML message validation, format checks, WS-I basic profile compliance, XML attachments check
- URL transformation

Secure remote access

- Integrated Citrix Access Gateway Enterprise Edition SSL VPN
- Support for up to 10,000 concurrent users

- End-point analysis
- Two-factor authentication
- Client-side cache cleanup
- Security certifications
- Responder module
- Layer 7 content filtering
- Custom responses and redirects

Network integration

- Static routes, monitored static routes, weighted static routes
- OSPF, RIP, BGP¹
- VLAN 802.3Q
- Link Aggregation 802.3ad
- IPv6

Simplified installation and management

User interface

- Graphical application visualizer
- Secure Web-based GUI
- CLI, Telnet, SSH, Console
- Real-time performance dashboard
- LB, GSLB and EdgeSight for NetScaler configuration wizards
- Citrix XenApp configuration wizards

Policy management

- AppExpert Visual Policy Builder
- Policy extensibility via HTTP service callouts
- AppExpert templates

EdgeSight for NetScaler¹

- Real-time and historical end-user experience monitoring
- Trending and reporting for Web application performance service level management

Third-party management support

- SNMPv1, SNMPv2 and SNMPv3: NetScaler MIB and MIB-II support
- XML/SOAP API for automated application-driven configuration

Real-time consolidated logging

- Offloads logging from application server to central location

Notes:

1. Available in NetScaler Enterprise and Platinum Editions only

About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) is the global leader and the most trusted name in Application Delivery Infrastructure. More than 215,000 organizations worldwide rely on Citrix to deliver any application to users anywhere with the best performance, highest security and lowest cost. Citrix customers include 100 percent of the *Fortune* 100 companies and 99 percent of the *Fortune* Global 500, as well as hundreds of thousands of small businesses and prosumers. Citrix has approximately 8,000 partners in more than 100 countries. Annual revenue in 2007 was \$1.4 billion.

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