Citrix NetScaler

Make web applications run five times better

Citrix® NetScaler® is a web application delivery solution that makes applications five times better by accelerating performance, ensuring that applications are always available and protected, and substantially lowering costs. NetScaler products are easily selected by determining the edition providing functional needs and the appropriate physical or virtual appliance platform to fulfill performance needs.

Feature	Platinum Edition	Enterprise Edition	Standard Edition
Application availability			
L4 load balancing	●	●	●
L7 content switching	●	●	●
AppExpert rate controls	●	●	●
IPv6 support	●	●	●
Global server load balancing (GSLB)	●	●	○
Dynamic routing protocols	●	●	
Surge protection	●	●	
Priority queuing	●	●	
Application acceleration			
Client and server TCP optimizations	●	●	●
Citrix® AppCompress™ for HTTP	●	●	○
Citrix® AppCache™	●	○	
Citrix® Branch Repeater™ client	●		
Application security			
L4 DoS defenses	●	●	●
L7 content filtering	●	●	●
HTTP/ URL rewrite	●	●	●
Citrix® Access Gateway™, EE SSL VPN	●	●	●
L7 DoS defenses	●	●	
AAA for traffic management	●	●	
Citrix® Application Firewall™ with XML security	●	○	
Simple manageability			
AppExpert visual policy builder	●	●	●
AppExpert service callouts	●	●	●
AppExpert templates	●	●	●
AppExpert Visualizers	●	●	●
Role-based administration	●	●	●
AAA for administration	●	●	●
Configuration wizards	●	●	●
Citrix Command Center	●	●	
Citrix® EdgeSight® for NetScaler	●	○	
Web 2.0 Optimization			
Rich Internet application support	●	●	●
XML XPath support	●	●	●
Advanced server offload	●	●	
Lower TCO			
TCP buffering	●	●	●
TCP multiplexing	●	●	●
SSL offload and acceleration	●	●	●
Cache redirection	●	●	

● = Standard ○ = Option

Note: Separately purchasable options not available for NetScaler VPX virtual appliance

NetScaler platform	MPX 21500	MPX 19500	MPX 17500	MPX 17000
Platform attributes				
Processor	Dual Intel Xeon X5680 (12 cores total)	Dual Intel Xeon X5680 (12 cores total)	Dual Intel Xeon X5680 (12 cores total)	Dual Intel Xeon 5440 (8 cores total)
Memory	48 GB	48 GB	48 GB	32 GB
Ethernet ports	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+	4x 10GBASE-X XFP OR 2x 10GBASE-X XFP AND 8x 10/100/1000 BASE-T
Transceiver support	10GE SFP+: SR, LR	10GE SFP+: SR, LR;	10GE SFP+: SR, LR	10GE XFP: SR, LR
Pay as you grow software upgrade		Upgrade option to MPX 21500	Upgrade option to MPX 19500 and MPX 21500	
Platform performance				
System throughput, Gbps	50	35	20	18
HTTP requests/sec	4,400,000	4,000,000	3,000,000	1,500,000
SSL transactions/sec	220,000	165,000	110,000	100,000
SSL throughput, Gbps	11.5	10	8	6.5
Compression throughput, Gbps	11	9	7	6
SSL VPN: concurrent users	10,000	10,000	10,000	10,000
Platform mechanical, environmental, and regulatory				
Power supplies	Dual	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	100-240VAC full range, 47-63 Hz
Optional DC power supply	Yes	Yes	Yes	Yes
Power consumption	650w 2219 BTU/Hr	650w 2219 BTU/Hr	650w 2219 BTU/Hr	700w 2390 BTU/Hr
Weight, lbs	40	40	40	52
Height	2U	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	EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets
Depth	25.4” / 64.5 cm	25.4” / 64.5 cm	25.4” / 64.5 cm	18.5” / 47 cm
Operating temperature	0-40C	0-40C	0-40C	0-35C
Allowed relative humidity	5%-95%, non-condensing	5%-95%, non-condensing	5%-95%, non-condensing	5%-95%, non-condensing
Safety certifications	UL, TUV-C	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	FCC (Part 15 Class A), DoC, CE, VCCI, CNS, AN/NES
Compliance	RoHS	RoHS	RoHS	RoHS

NetScaler platform	MPX 15500	MPX 15000	MPX 12500	MPX 10500
Platform attributes				
Processor	Dual Intel Xeon E5440 (8 cores total)	Dual Intel Xeon E5240 (8 cores total)	Dual Intel Xeon E5440 (8 cores total)	Dual Intel Xeon E5440 (8 cores total)
Memory	16 GB	16 GB	16 GB	16 GB
Ethernet ports	8x 10/100/1000 BASE-T AND 8x 1000BASE-X SFP (fiber or copper) OR 2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)	2x 10GBASE-X XFP AND 8x 10/100/1000 BASE-T	8x 10/100/1000 BASE-T AND 8x 1000BASE-X SFP (fiber or copper) OR 2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)	8x 10/100/1000 BASE-T AND 8x 1000BASE-X SFP (fiber or copper) OR 2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)
Transceiver support	10GE SFP+: SR, LR; 1 GE SFP: SX, LX	10GE XFP: SR, LR	10GE SFP+: SR, LR; 1 GE SFP: SX, LX	10GE SFP+: SR, LR; 1 GE SFP: SX, LX
Software upgradable performance			Upgrade option to MPX 15500	Upgrade option to MPX 12500 and 15500
Platform performance				
System throughput, Gbps	15	15	8	5
HTTP requests/sec	1,200,000	900,000	700,000	500,000
SSL transactions/sec	87,000	75,000	60,000	30,000
SSL throughput, Gbps	6.5	6	6	5
Compression throughput, Gbps	6.5	3.5	6	5
SSL VPN: concurrent users	10,000	10,000	10,000	10,000
Platform mechanical, environmental, and regulatory				
Power supplies	Dual	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	100-240VAC full range, 47-63 Hz
Optional DC power supply	Yes	Yes	Yes	Yes
Power consumption	450w 1536 BTU/Hr	700w 2390 BTU/Hr	450w 1536 BTU/Hr	450w 1536 BTU/Hr
Weight, lbs	30	52	30	30
Height	2U	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	EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets
Depth	28” / 71 cm	18.5” / 47 cm	28” / 71 cm	28” / 71 cm
Operating temperature	0-40C	0-35C	0-40C	0-40C
Allowed relative humidity	5%-95%, non-condensing	5%-95%, non-condensing	5%-95%, non-condensing	5%-95%, non-condensing
Safety certifications	UL, TUV-C	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	FCC (Part 15 Class A), DoC, CE, VCCI, CNS, AN/NES
Compliance	RoHS	RoHS	RoHS	RoHS

NetScaler platform	MPX 9500	9010 FIPS[1]	MPX 7500	MPX 5500	VPX 10/200/1000
Platform attributes					
Processor	Intel Xeon L5410 (4 cores total)	Intel Xeon 3.4E GHz (1 core)	Intel Xeon L5410 (4 cores total)	Intel Xeon E5205 (2 cores total)	Minimum Server Req.: Dual core server with Intel® VTx or AMD-V™ • Citrix® XenServer™ 5 (update 3 or better) • VMWare ESX/ESXi 3.5 or higher • 2G RAM/20 GB hard drive • Hypervisor supported NIC
Memory	8 GB	2 GB	8 GB	4 GB	
Ethernet ports	8x 10/100/1000 BASE-T OR 4x 10/100/1000 BASE-T AND 4x 1000BASE-X SFP (fiber or copper)	4x 1000BASE-SX SFP (fiber or optical) OR 4x 10/100/1000 BASE-T	8x 10/100/1000 BASE-T OR 4x 10/100/1000 BASE-T AND 4x 1000BASE-X SFP (fiber or copper)	4x 10/100/1000 BASE-T	
Transceiver support	SX, LX	SX, LX	SX, LX		
Software upgradable performance			Upgrade option to MPX 9500		Upgrade option to VPX, 200, and 1000
Platform performance					
System throughput, Gbps	3	3	1	0.5	Up to 1.0
HTTP requests/sec	200,000	125,000	100,000	50,000	Up to 100,000
SSL transactions/sec	20,000	4,400	10,000	5,000	Up to 500
SSL throughput, Gbps	3	0.5	1	0.5	Up to 1.0
Compression throughput, Gbps	2	0.4	1	0.5	Up to 0.75
SSL VPN: concurrent users	10,000	5,000	10,000	5,000	Up to 300[2]
Platform mechanical, environmental, and regulatory					
Power supplies	Single plus optional second supply	Dual	Single plus optional second supply	Single only	Dependent on server platform chosen
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	100-240VAC full range, 47-63 Hz	
Optional DC power supply	Yes	Yes	Yes	No	
Power consumption	450w 1536 BTU/Hr	500w 1705 BTU/Hr	450w 1536 BTU/Hr	300w 1110 BTU/Hr	
Weight, lbs	21	52	21	19	
Height	1U	2U	1U	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	EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets	
Depth	21.75” / 55.2 cm	24” / 61 cm	21.75” / 55.2 cm	21.75” / 55.2 cm	
Operating temperature	0-40C	0-50C	0-40C	0-40C	
Allowed relative humidity	10%-90%, non-condensing	5%-95%, non-condensing	10%-90%, non-condensing	10%-90%, non-condensing	
Safety certifications	UL, TUV-C	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	FCC (Part 15 Class A), DoC, CE, VCCI, CNS, AN/NES	
Compliance	RoHS	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, RADIUS
- 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, UDP

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, connections, bandwidth, AG-E SSL VPN users
- Site health checking on status, connection load, packet rate, SNMP-provided metrics

Content rewriting and response control

- Policy-based bidirectional rewriting of HTTP header and payload elements
- Policy-based redirection of incoming requests
- Body URL rewrite
- Responder module
- Custom responses and redirects
- Policy based routing
- Network aware policies

Application acceleration

TCP optimization

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

AppCompress

- Gzip-based compression for HTTP traffic

AppCache[1]

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

Application security

DoS attack defense

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

Surge protection and priority queuing[1]

- 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 Application Firewall[1]

- Positive security model protects against: Buffer Overflow, CGI-BIN Parameter Manipulation, Form/Hidden Field Manipulation, Forceful Browsing, Cookie or Session Poisoning, Broken ACLs,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, Cross Site Request Forgery (CSRF), credit card and other sensitive data leakage prevention
- 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 attachment check
- URL transformation

Secure access

- Integrated Citrix Access Gateway Enterprise Edition SSL VPN
- Endpoint analysis
- Two-factor and client certificate authentication
- Client-side cache cleanup
- Security certifications
- Layer 7 content filtering
- AAA traffic management
- Active Directory, LDAP, RADIUS, TACACS +, OCSP

Network integration

- Static routes, monitored static routes, weighted static routes
- OSPF, RIP1/2, BGP[1]
- VLAN 802.1Q[3]
- Link Aggregation 802.3ad
- IPv6/ IPv4 gateway

High availability

- Active/Passive
- Active/Active
- VRRP
- ECMP
- Connection Mirroring

Technical aspects

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
- AppExpert Visualizers

Citrix Command Center[1]

- Centralized configuration and management of over 200 NetScaler appliances.

EdgeSight for NetScaler[1]

- Real-time and historical 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
- Microsoft System Center Operations Management (SCOM) support
- Microsoft System Center Virtual Machine Manager (SCVMM) 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
2. Using 3DES algorithm. Up to 1,000 concurrent users using RC4 algorithm
3. Not supported on NetScaler VPX

www.citrix.com

About Citrix
Citrix Systems, Inc. (NASDAQ:CTXS) is a leading provider of virtual computing solutions that help companies deliver IT as an on-demand service. Founded in 1989, Citrix combines virtualization, networking, and cloud computing technologies into a full portfolio of products that enable virtual workstyles for users and virtual datacenters for IT. More than 230,000 organizations worldwide rely on Citrix to help them build simpler and more cost-effective IT environments. Citrix partners with over 10,000 companies in more than 100 countries. Annual revenue in 2009 was $1.61 billion.

©2010 Citrix Systems, Inc. All rights reserved. Citrix®, NetScaler®, Access Gateway™, Citrix EasyCall™, Branch Repeater™, Application Firewall™, XenServer™, XenApp™ and Edgesight™ are trademarks of Citrix Systems, Inc. and/or one or more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries. All other trademarks and registered trademarks are property of their respective owners.

0110/PDF