

# 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
<b>Application availability</b>			
L4 load balancing	•	•	•
L7 content switching	•	•	•
Database load balancing	•	•	•
AppExpert rate controls	•	•	•
IPv6 support	•	•	•
Global server load balancing (GSLB)	•	•	•
Dynamic routing protocols	•	•	
Surge protection	•	•	
Priority queuing	•	•	
<b>Application acceleration</b>			
Client and server TCP optimizations	•	•	•
Citrix® AppCompress™ for HTTP	•	•	•
Citrix® AppCache™	•	•	
NetScaler CloudConnectors™	•	•	•
Citrix® Branch Repeater™ client	•		
<b>Application security</b>			
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	•	•	
NetScaler Cloud Bridge	•		
<b>Simple manageability</b>			
AppFlow™	•	•	•
AppExpert visual policy builder	•	•	•
AppExpert service callouts	•	•	•
AppExpert templates and Visualizers	•	•	•
Role-based administration	•	•	•
AAA for administration	•	•	•
Configuration wizards	•	•	•
Native Citrix Web Interface	•	•	•
Citrix® Command Center	•	•	
Citrix® EdgeSight® for NetScaler	•	•	
<b>Web 2.0 Optimization</b>			
Rich Internet application support	•	•	•
XML XPath support	•	•	•
Advanced server offload	•	•	
<b>Lower TCO</b>			
TCP buffering	•	•	•
TCP and SQL multiplexing	•	•	•
SSL offload and acceleration	•	•	•
Cache redirection including multi-layer support	•	•	

• = Standard    • = Option

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

NetScaler platform	MPX / SDX <sup>1</sup> 21550	MPX / SDX <sup>1</sup> 20550	MPX/SDX <sup>1</sup> 19550	MPX/SDX <sup>1</sup> 17550
<b>Platform attributes</b>				
Processor	Dual Intel X5680	Dual Intel X5680	Dual Intel X5680	Dual Intel X5680
Memory	96 GB	96 GB	96 GB	96 GB
Ethernet ports	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+
Transceivers support	10GE SFP+: SR, LR	10GE SFP+: SR, LR;	10GE SFP+: SR, LR	10GE SFP+: SR, LR
Pay as you grow and BurstPack license upgrades		Upgrade option to MPX/SDX 21550	Upgrade option to MPX/SDX 20550 and MPX/SDX 21550	Upgrade option to MPX/SDX 19550, MPX/SDX 20550 and MPX/SDX 21550
<b>Platform performance</b>				
System throughput, Gbps	50	40	30	20
SSL transactions/sec (1K key / 2K key certificates)	380,000 / 98,000 (MPX) 280,000 / 98,000 (SDX)	275,000 / 68,000	200,000 / 45,000	145,000 / 30,000
SSL throughput, Gbps	11	8	8	7
Compression throughput, Gbps	11 (MPX) / 10 (SDX)	9	8	7
SSL VPN: concurrent users	10,000	10,000	10,000	10,000
Maximum number of Instances (for SDX models)	40	40	40	40
<b>Platform mechanical, environmental and regulatory</b>				
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	850w 2219 BTU/Hr	850w 2219 BTU/Hr	850w 2219 BTU/Hr	850w 2219 BTU/Hr
Weight, lbs	49	49	49	49
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" / 71.2 cm	28" / 71.2 cm	28" / 71.2 cm	28" / 71.2 cm
Operating temperature	0-40C	0-40C	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 21500 / SDX <sup>1</sup> 21500	MPX 19500 / SDX <sup>1</sup> 19500	MPX 17500 / SDX <sup>1</sup> 17500
<b>Platform attributes</b>			
Processor	Dual Intel Xeon X5680	Dual Intel Xeon X5680	Dual Intel Xeon X5680
Memory	48 GB	48 GB	48 GB
Ethernet ports	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+	8x 10GBASE-X SFP+
Transceivers support	10GE SFP+: SR, LR	10GE SFP+: SR, LR;	10GE SFP+: SR, LR
Pay as you grow and BurstPack license upgrades		Upgrade option to MPX/SDX 21500	Upgrade option to MPX/SDX 19500 and MPX/SDX 21500
<b>Platform performance</b>			
System throughput, Gbps	50	35	20
HTTP requests/sec (MPX/SDX)	4,400,000 / 3,400,000	4,000,000 / 3,400,000	3,000,000
SSL transactions/sec (1K key / 2K key certificates)	205,000 / 45,000	160,000 / 33,000	107,000 / 22,000
SSL throughput, Gbps	11	10	8
Compression throughput, Gbps	11	9	7
SSL VPN: concurrent users	10,000	10,000	10,000
Maximum number of Instances (for SDX models)	20	20	20
<b>Platform mechanical, environmental and regulatory</b>			
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
Optional DC power supply	No	No	No
Power consumption	650w 2219 BTU/Hr	650w 2219 BTU/Hr	650w 2219 BTU/Hr
Weight, lbs	40	40	40
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	25.4" / 64.5 cm	25.4" / 64.5 cm	25.4" / 64.5 cm
Operating temperature	0-40C	0-40C	0-40C
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

NetScaler platform	MPX 20500/SDX <sup>1</sup> 20500	MPX 18500 / SDX <sup>1</sup> 18500	MPX 16500 / SDX <sup>1</sup> 16500	MPX 15500
<b>Platform attributes</b>				
Processor	Dual Intel Xeon E5645	Dual Intel Xeon E5645	Dual Intel Xeon E5645	Dual Intel Xeon E5440
Memory	48 GB	48 GB	48 GB	16 GB
Ethernet ports	4x10GBASE-X SFP+ AND 8x1000BASE-X SFP (fiber or copper)	4x10GBASE-X SFP+ AND 8x1000BASE-X SFP (fiber or copper)	4x10GBASE-X SFP+ AND 8x1000BASE-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)
Transceivers support	10GE SFP+: SR, LR 1 GE SFP: SX, LX	10GE SFP+: SR, LR 1 GE SFP: SX, LX	10GE SFP+: SR, LR 1 GE SFP: SX, LX	10GE SFP+: SR, LR; 1 GE SFP: SX, LX
Pay as you grow and BurstPack license upgrades		Upgrade option to MPX /SDX 20500	Upgrade options to MPX / SDX 18500 and MPX / SDX 20500	
<b>Platform performance</b>				
System throughput, Gbps	42	36	24	15
HTTP requests/sec (MPX / SDX)	2,600,000 / 2,300,000	2,500,000	2,000,000	1,200,000
SSL transactions/sec (1K key / 2K key certificates)	205,000 / 45,000	158,000 / 34,000	133,000 / 28,000	87,000 / 22,000
SSL throughput, Gbps (MPX / SDX)	11 / 10.4	10.5	10	9.0
Compression throughput, Gbps (MPX / SDX)	8 / 7.1	7.0	6.0	6.5
SSL VPN: concurrent users	10,000	10,000	10,000	10,000
Maximum number of Instances (for SDX models)	20	20	20	Not applicable
<b>Platform mechanical, environmental and regulatory</b>				
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	450w 1536 BTU/Hr
Weight, lbs	45	45	45	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	28" / 71 cm	28" / 71 cm	28" / 71 cm
Operating temperature	0-40C	0-40C	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 15500 FIPS	MPX 14500 / SDX <sup>1</sup> 14500	MPX 13500 / SDX <sup>1</sup> 13500	MPX 12500
<b>Platform attributes</b>				
Processor	Dual Intel Xeon E5440	Dual Intel Xeon E5645	Dual Intel Xeon E5645	Dual Intel Xeon E5440
Memory	16 GB	48 GB	48 GB	16 GB
Ethernet ports	2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)	4x10GBASE-X SFP+ AND 8x1000BASE-X SFP (fiber or copper)	4x10GBASE-X SFP+ AND 8x1000BASE-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)
Transceivers support	10GE SFP+: SR, LR; 1 GE SFP: SX, LX	10GE SFP+: SR, LR 1 GE SFP: SX, LX	10GE SFP+: SR, LR 1 GE SFP: SX, LX	10GE SFP+: SR, LR; 1 GE SFP: SX, LX
Pay as you grow and BurstPack license upgrades		Upgrade options to MPX / SDX 16500, MPX / SDX 18500, and MPX / SDX 20500	Upgrade options to MPX / SDX 14500, MPX / SDX 16500, MPX / SDX 18500 and MPX / SDX 20500	Upgrade option to MPX 15500
<b>Platform performance</b>				
System throughput, Gbps	15	18	12	10
HTTP requests/sec (MPX / SDX)	1,200,000	1,600,000	1,400,000	700,000
SSL transactions/sec (1K key / 2K key certificates)	30,000 / 8,000	107,000 / 23,000	80,000 / 17,000	60,000 / 22,000
SSL throughput, Gbps	4.5	7	6.5	6
Compression throughput, Gbps	6.5	4.5	3.5	6
SSL VPN: concurrent users	10,000	10,000	10,000	10,000
Maximum number of Instances (for SDX models)	Not applicable	20	20	Not applicable
<b>Platform mechanical, environmental and regulatory</b>				
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	650W 2219 BTU/Hr	650W 2219 BTU/Hr	450w 1536 BTU/Hr
Weight, lbs	30	45	45	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	28" / 71 cm	28" / 71 cm	28" / 71 cm
Operating temperature	0-40C	0-40C	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; FIPS 140-2, Level 2	RoHS	RoHS	RoHS

NetScaler platform	MPX 12500 FIPS	MPX 11500 / SDX <sup>1</sup> 11500	MPX 10500	MPX 10500 FIPS
<b>Platform attributes</b>				
Processor	Dual Intel Xeon E5440	Dual Intel Xeon E5645	Dual Intel Xeon E5440	Dual Intel Xeon E5440
Memory	16 GB	48 GB	16 GB	16 GB
Ethernet ports	2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)	4x10GBASE-X SFP+ AND 8x1000BASE-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)	2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)
Transceivers support	10GE SFP+: SR, LR; 1 GE SFP: SX, LX	10GE SFP+: SR, LR 1 GE SFP: SX, LX	10GE SFP+: SR, LR; 1 GE SFP: SX, LX	10GE SFP+: SR, LR; 1 GE SFP: SX, LX
Pay as you grow and BurstPack license upgrades	Upgrade option to FIPS version of MPX 15500	Upgrade options to MPX/SDX 13500, MPX/SDX 14500, MPX / SDX 16500, MPX / SDX 18500 and MPX / SDX 20500	Upgrade option to MPX 12500 and MPX 15500	Upgrade option to FIPS versions of MPX 12500 and MPX 15500
<b>Platform performance</b>				
System throughput, Gbps	10	8	6	6
HTTP requests/sec (MPX / SDX)	700,000	800,000	500,000	500,000
SSL transactions/sec (1K key / 2K key certificates)	25,000 / 6,000	54,000 / 11,000	30,000 / 6,000	15,000 / 4,000
SSL throughput, Gbps	3.6	6	5	2.0
Compression throughput, Gbps	6	2.5	5	5
SSL VPN: concurrent users	10,000	10,000	10,000	10,000
Maximum number of Instances (for SDX models)	Not applicable	20	Not applicable	Not applicable
<b>Platform mechanical, environmental and regulatory</b>				
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	650W 2219 BTU/Hr	450w 1536 BTU/Hr	450w 1536 BTU/Hr
Weight, lbs	30	45	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	28" / 71 cm	28" / 71 cm	28" / 71 cm
Operating temperature	0-40C	0-40C	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; FIPS 140-2, Level 2	RoHS	RoHS	RoHS; FIPS 140-2, Level 2

NetScaler platform	MPX 9700 FIPS	MPX 9500	MPX 7500	MPX 5500
<b>Platform attributes</b>				
Processor	Dual Intel Xeon E5440	Intel Xeon L5410	Intel Xeon L5410	Intel Xeon E5205
Memory	16 GB	8 GB	8 GB	4 GB
Ethernet ports	2x 10GBASE-X SFP+ AND 8x 1000BASE-X SFP (fiber or copper)	8x 10/100/1000 BASE-T OR 4x 10/100/1000 BASE-T AND 4x 1000BASE-X SFP (fiber or copper)	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
Transceivers support	10GE SFP+: SR, LR; 1 GE SFP: SX, LX	SX, LX	SX, LX	
Pay as you grow and BurstPack license upgrades	Upgrade option to FIPS versions of MPX 10500, MPX 12500 and MPX 15500		Upgrade option to MPX 9500	
<b>Platform performance</b>				
System throughput, Gbps	3	3	1	0.5
HTTP requests/sec	200,000	200,000	100,000	50,000
SSL transactions/sec (1K key / 2K key certificates)	5,000 / 2,000	20,000 / 5,000	10,000 / 3,000	5,000 / 1,000
SSL throughput, Gbps	1.0	3	1	0.5
Compression throughput, Gbps	2	2	1	0.5
SSL VPN: concurrent users	10,000	10,000	10,000	5,000
Maximum number of Instances (for SDX models)	Not applicable	Not applicable	Not applicable	Not applicable
<b>Platform mechanical, environmental and regulatory</b>				
Power supplies	Dual	Single plus optional second supply	Single plus optional second supply	Single only
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	450w 1536 BTU/Hr	450w 1536 BTU/Hr	300w 1110 BTU/Hr
Weight, lbs	30	21	21	19
Height	2U	1U	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	28" / 71 cm	21.75" / 55.2 cm	21.75" / 55.2 cm	21.75" / 55.2 cm
Operating temperature	0-40C	0-40C	0-40C	0-40C
Allowed relative humidity	5%-95%, non-condensing	10%-90%, 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; FIPS 140-2, Level 2	RoHS	RoHS	RoHS

**NetScaler platform** VPX 10/200/1000/3000

**Platform attributes**

Processor	Minimum Server Req.: <sup>2</sup> Dual core server with Intel® VTx or AMD-V™
Memory	
Ethernet ports	
	<ul style="list-style-type: none"> <li>• Citrix® XenServer® 5 (update 3 or better)</li> <li>• Windows Server 2008 R2 with Hyper-V role</li> <li>• VMWare ESX/ESXi 3.5 or higher</li> <li>• 4G RAM/20 GB hard drive</li> <li>• Hypervisor supported NIC</li> </ul>
Transceivers support	
Pay as you grow and BurstPack license upgrades	Upgrade options to VPX 200, VPX 1000 and VPX 3000

**Platform performance**

System throughput, Gbps	Up to 3.0 <sup>3</sup>
HTTP requests/sec	Up to 100,000
SSL transactions/sec (1K key / 2K key certificates)	Up to 500/100
SSL throughput, Gbps	Up to 1.0
Compression throughput, Gbps	Up to 0.75
SSL VPN: concurrent users	Up to 300 <sup>4</sup>
Maximum number of Instances (for SDX models)	Not applicable

**Platform mechanical, environmental and regulatory**

Power supplies	Dependent on server platform chosen
Input voltage and frequency ranges	
Optional DC power supply	
Power consumption	
Weight, lbs	
Height	
Width	
Depth	
Operating temperature	
Allowed relative humidity	
Safety certifications	
Electromagnetic emissions certifications and susceptibility standards	
Compliance	



## 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, SQL, RDP
- 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
- Citrix Branch Repeater 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

#### Database load balancing

- Support for: Microsoft SQL Server and MySQL
- Switching algorithms include SQL query parameters such as user and database names and command parameters

#### 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<sup>5</sup>
- Caching for static and dynamic application content
- HTTP GET and POST method support
- Policies defined based upon HTTP header and body values

#### NetScaler CloudConnectors

- On-premise proxy providing symmetric TCP optimizations, data compression and data de-duplication
- Available on NetScaler MPX, SDX and VPX

### 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<sup>5</sup>

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

#### DNSSEC

- DNS proxy
- Authoritative DNS
- DNS signing

#### Packet filtering

- Layer 3 and 4 Access Control Lists (ACL)
- Network Address Translation (NAT)
- IPv4/IPv6 Network Address Translation (NAT)

#### NetScaler Application Firewall with hybrid security model <sup>5</sup>

- 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

- Negative security model with signatures to protect against L7 and HTTP application vulnerabilities.
  - Integrates with third party scanning tools
  - 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, XPath injection attachment check, XQuery Injection protection
  - WSDL scan prevention
  - Attachment checks
  - URL transformation
  - Cookie proxying and encryption
  - SOAP array attack protection
- 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
- NetScaler Cloud Bridge<sup>6</sup>
- Network connectivity protection via IPsec security
  - Datacenter extension through GRE-based network bridging

### Network integration

- Static routes, monitored static routes, weighted static routes
  - OSPF, RIP1/2, BGP<sup>5</sup>
  - VLAN 802.1Q
  - 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 Application Firewall 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<sup>5</sup>

- Centralized configuration and management of over 200 NetScaler appliances.

#### NetScaler AppFlow:

- Real-time, end-to-end visibility of application flows
- Standards-based NetFlow/IPFIX (Internet Protocol Flow Information Export) solution
- Supported by leading performance monitoring and management vendors
- Provides transaction level visibility for HTTP, SSL, TCP, and SSL/TCP flows

#### EdgeSight for NetScaler<sup>5</sup>

- 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

#### Native Web Interface

- Integrated Web Interface Server for Citrix XenApp and XenDesktop
- Supports JAVA environments with MPX and VPX platforms running NetScaler nCore OS
- Authentication methods include: LDAP, RADIUS, NTLM, TACACS+, Client Certificate
- Manage HTTPS requests via included SSL VPN
- Wizards-based configuration through NetScaler GUI
- Includes Smart Access, smooth roaming, STA server redundancy, and session reliability

## Lower total cost of ownership

#### Web cache redirection<sup>5</sup>

- Automatically direct requests with content not cached on NetScaler to cache farm

- N-tier multilayer load balancing support of cache servers

#### Notes:

1. SDX models ship with a Platinum Edition license and include 5 NetScaler instances. Additional NetScaler packs with 5 instances each are available. All instances may be configured for any NetScaler Edition.
2. Listed hardware requirements are for NetScaler VPX nCore version. NetScaler VPX classic builds are available with a smaller server footprint and a reduced feature set.
3. Maximum HTTP throughput for VPX running on XenServer and Hyper-V is less than 3Gbps
4. Using 3DES algorithm. Up to 1,000 concurrent users using RC4 algorithm
5. Available in NetScaler Enterprise and Platinum Editions only
6. Included in Platinum Edition only; not available with Standard or Enterprise Editions



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#### 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 2010 was \$1.87 billion.

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