

# 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 and L7 content switching              | ●                | ●                  | ●                |
| Database load balancing                                 | ●                | ●                  | ●                |
| AppExpert rate controls                                 | ●                | ●                  | ●                |
| IPv6 support  | ●                | ●                  | ●                |
| Global server load balancing (GSLB)                     | ●                | ●                  | ●                |
| Dynamic routing protocols                               | ●                | ●                  | ●                |
| Surge protection and priority queuing                   | ●                | ●                  | ●                |
| TriScale™ clustering                                    | ●                | ●                  | ●                |
| <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 and HTTP/URL rewrite               | ●                | ●                  | ●                |
| Citrix Access Gateway™, EE SSL VPN                      | ●                | ●                  | ●                |
| SAML2 support   | ●                | ●                  | ●                |
| 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                         | ●                | ●                  | ●                |
| ActionAnalytics   | ●                | ●                  | ●                |
| AppExpert service callouts, templates and Visualizers   | ●                | ●                  | ●                |
| Role-based administration and 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 and 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 Xeon 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)<br>280,000 / 98,000 (SDX)                        | 330,000 / 73,000 (MPX)<br>275,000 / 68,000 (SDX)                        | 245,000 / 50,000  | 150,000 / 33,000  |
| SSL throughput, Gbps  | 11  | 10  | 9   | 8   |
| 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<br>8x1000BASE-X SFP (fiber or copper)              | 4x10GBASE-X SFP+ AND<br>8x1000BASE-X SFP (fiber or copper)              | 4x10GBASE-X SFP+ AND<br>8x1000BASE-X SFP (fiber or copper)              | 8x 10/100/1000 BASE-T AND<br>8x 1000BASE-X SFP (fiber or copper)<br>OR<br>2x 10GBASE-X SFP+ AND<br>8x 1000BASE-X SFP (fiber or copper) |
| Transceivers support  | 10GE SFP+: SR, LR<br>1 GE SFP: SX, LX                                   | 10GE SFP+: SR, LR<br>1 GE SFP: SX, LX                                   | 10GE SFP+: SR, LR<br>1 GE SFP: SX, LX                                   | 10GE SFP+: SR, LR;<br>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<br>8x 1000BASE-X SFP (fiber or copper)            | 4x10GBASE-X SFP+ AND<br>8x1000BASE-X SFP (fiber or copper)               | 4x10GBASE-X SFP+ AND<br>8x1000BASE-X SFP (fiber or copper)                               | 8x 10/100/1000 BASE-T AND<br>8x 1000BASE-X SFP (fiber or copper) OR<br>2x 10GBASE-X SFP+ AND<br>8x 1000BASE-X SFP (fiber or copper) |
| Transceivers support  | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX                                  | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX                                   | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX   | 10GE SFP+: SR, LR;<br>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   | 1,800,000  | 1,600,000  | 700,000   |
| SSL transactions/sec (1K key/2K key certificates)                     | 30,000 / 8,000  | 105,000 / 22,000   | 93,000 / 19,000  | 60,000 / 22,000   |
| SSL throughput, Gbps (MPX / SDX)                                      | 4.5   | 7  | 6.5  | 6   |
| Compression throughput, Gbps (MPX / SDX)                              | 6.5   | 5  | 4.5  | 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 E54   |
| Memory  | 16 GB   | 48 GB  | 16 GB   | 16 GB   |
| Ethernet ports  | 2x 10GBASE-X SFP+ AND<br>8x 1000BASE-X SFP<br>(fiber or copper)               | 4x10GBASE-X SFP+ AND<br>8x1000BASE-X SFP (fiber<br>or copper)  | 8x 10/100/1000 BASE-T<br>AND 8x 1000BASE-X SFP<br>(fiber or copper) OR<br>2x 10GBASE-X SFP+ AND<br>8x 1000BASE-X SFP<br>(fiber or copper) | 2x 10GBASE-X SFP+<br>AND<br>8x 1000BASE-X SFP<br>(fiber or copper)            |
| Transceivers support  | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX  | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX   | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX  | 10GE SFP+: SR, LR;<br>1 GE SFP: SX, LX  |
| Pay as you grow<br>and BurstPack<br>license upgrades                        | Upgrade option to FIPS<br>version of MPX 15500                                | Upgrade options to<br>MPX / SDX 13500,<br>MPX / SDX 14500,<br>MPX / SDX 16500,<br>MPX / SDX 18500 and<br>MPX / SDX 20500 | Upgrade option to<br>MPX 12500 and<br>MPX 15500   | Upgrade option to FIPS<br>versions of MPX 12500<br>and MPX 15500              |
| <b>Platform performance</b>   |   |  |   |   |
| System throughput, Gbps   | 10  | 8  | 6   | 6   |
| HTTP requests/sec<br>(MPX / SDX)  | 700,000   | 1,200,000  | 500,000   | 500,000   |
| SSL transactions/sec<br>(1K key/2K key certificates)                        | 25,000 / 6,000  | 80,000 / 15,000  | 30,000 / 6,000  | 15,000 / 4,000  |
| SSL throughput, Gbps  | 3.6   | 6  | 5   | 2.0   |
| Compression throughput,<br>Gbps   | 6   | 3.5  | 5   | 5   |
| SSL VPN: concurrent users   | 10,000  | 10,000   | 10,000  | 10,000  |
| Maximum number of<br>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<br>frequency ranges                                       | 100-240VAC full range,<br>47-63 Hz  | 100-240VAC full range,<br>47-63 Hz   | 100-240VAC full range,<br>47-63 Hz  | 100-240VAC full range,<br>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<br>41494 SC48D rack width<br>with mounting brackets | EIA 310-D, IEC 60297, DIN<br>41494 SC48D rack width<br>with mounting brackets  | EIA 310-D, IEC 60297, DIN<br>41494 SC48D rack width<br>with mounting brackets   | EIA 310-D, IEC 60297, DIN<br>41494 SC48D rack width<br>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<br>certifications and<br>susceptibility standards | FCC (Part 15 Class A),<br>DoC, CE, VCCI, CNS,<br>AN/NES                       | FCC (Part 15 Class A),<br>DoC, CE, VCCI, CNS,<br>AN/NES  | FCC (Part 15 Class A),<br>DoC, CE, VCCI, CNS,<br>AN/NES   | FCC (Part 15 Class A),<br>DoC, CE, VCCI, CNS,<br>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<br>8x 1000BASE-X SFP (fiber or copper)            | 8x 10/100/1000 BASE-T OR<br>4x 10/100/1000 BASE-T AND 4x 1000BASE-X SFP (fiber or copper) | 8x 10/100/1000 BASE-T OR<br>4x 10/100/1000 BASE-T AND<br>4x 1000BASE-X SFP (fiber or copper) | 4x 10/100/1000 BASE-T   |
| Transceivers support  | 10GE SFP+: SR, LR;<br>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  |

| <b>NetScaler Platform</b>   |  | VPX 10 / 200 / 1000 / 3000  |
|---|--|---|
| <b>Platform attributes</b>  |  |   |
| Processor   |  | Minimum Server Req.: <sup>2</sup><br>Dual core server with Intel® VTx or AMD-V™   |
| Memory  |  |   |
| Ethernet ports  |  |   |
| Transceivers support  |  | <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> |
| Pay as you grow and BurstPack license upgrades                        |  | Upgrade options to VPX 200, VPX 1000 and VPX 3000   |
| <b>Platform performance</b>   |  |   |
| 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  |
| <b>Platform mechanical, environmental and regulatory</b>              |  |   |
| 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, DIAMETER, 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
- Switch requests based on protocol of incoming packets

#### 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
- Token-based load balancing provides advanced configuration for persistence and fault tolerant deployments

#### TriScale clustering<sup>7</sup>

- "Scale-Out" with clustering up to 32 NetScaler appliances into single system image
- Multiple traffic distribution system mechanisms
- Configuration Coordinator node for centralized management and synchronization
- Compatible with Pay-As-You-Grow and Burst Pack performance upgrades
- Traffic distribution mechanisms include: Equal Cost Multiple Path (ECMP), Linksets, and Cluster Link Aggregation Group (CLAG)
- Available on NetScaler MPX and VPX and with all editions

#### 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
- Common event format (CEF) logs
- 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
- SAML2 and NTLMv1/2 support for configuring NetScaler with single sign-on (SSO)
- 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

#### ActionAnalytics

- Aggregates real-time traffic statistics and enables their use in setting dynamic policies
- Charting and analysis utilities

#### 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
- Login page customization
- 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.
7. Available as a license upgrade on all editions and for MPX and VPX appliances.



#### About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) is the company transforming how people, businesses and IT work and collaborate in the cloud era. With market-leading cloud, collaboration, networking and virtualization technologies, Citrix powers mobile workstyles and cloud services, making complex enterprise IT simpler and more accessible for 250,000 enterprises. Citrix touches 75 percent of Internet users each day and partners with more than 10,000 companies in 100 countries. Annual revenue in 2011 was \$2.21 billion. Learn more at [www.citrix.com](http://www.citrix.com).

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