

# NetScaler hardware models

Enabling high-performance application delivery with hardware form factors and multi-tenant support

NetScaler is an application security and delivery platform that helps you scale and protect your applications using data and insights to enable peak performance. Whether you're delivering applications to your customers, your workforce, or both, NetScaler helps you do it reliably and securely.

NetScaler is built on a single operating system, so no matter which ADC form factor you choose — hardware or software or a mix — you'll manage them from one place. The operational consistency and deep observability you get with NetScaler makes it easier to apply consistent security policies and to troubleshoot faster.

NetScaler offers pooled-capacity licensing, which allows you to reallocate capacity to wherever you need it, whenever you need it, no matter where you choose to deploy your ADCs — on-premises or public cloud or both — your NetScaler subscription price will remain the same.

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## NetScaler hardware form factors

### NetScaler MPX

NetScaler MPX is a physical form factor that provides powerful hardware-based application delivery and load balancing with options for high performance web application security and SSL offload support.

### NetScaler SDX

NetScaler SDX introduces fully isolated multi-tenant support on a single appliance for application workloads and groups. Deploying multiple virtual instances of NetScaler on one hardware appliance allows for the consolidation of multiple load balancers and application rollout.

### NetScaler FIPS models

NetScaler offers specific physical and virtual form factors with FIPS 140-2 certification and compliance to meet the stringent compliance mandates and security requirements.

See [NetScaler FIPS data sheet](#).

NetScaler models	MPX/SDX 26200-100G	MPX/SDX 26160-100G	MPX/SDX 26100-100G
<b>Attributes</b>			
Memory	256 GB	256 GB	256 GB
Ethernet ports <sup>1</sup>	8 × 100GE QSFP28	8 × 100GE QSFP28	8 × 100GE QSFP28
Transceivers support	50GE/100GE QSFP28: SR4; 40GE QSFP+: SR4; 25GE SFP28: SR (Adapter required); 10GE SFP+: SR, LR (Adapter required)		
RAID support	Yes	Yes	Yes
<b>Performance</b>			
System throughput (Gbps) [L7 throughput]	200	160	100
L7 HTTP requests/sec	5,000,000	4,600,000	4,100,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	125,000	110,000	66,000
ECDHE transactions/sec	58,000	50,000	30,000
SSL throughput (Gbps)	60	48	36
Compression throughput (Gbps)	19	15	12
ICA Proxy/SSL VPN concurrent users	20,000	20,000	20,000
Included instances, maximum instances (on SDX models)	115, 115	70, 115	20, 115
<b>Mechanical, environmental, and regulatory</b>			
Power supplies	2		
Input voltage, frequency range	100–240 VAC full range, 50–60 Hz		
Optional DC power supply	Yes		
Power supply	1000W		
Typical, max power consumption	429W, 556W		
Weight (lb)	48		
Height	2U		
Width	EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets		
Depth	71.1 cm (28 in)		
Operating temperature	0–45°C (32–113°F)		
Allowed relative humidity	5%–95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	2U1P1D		

#### Notes:

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 26000-100G series have 80plus gold rating for power supply.

NetScaler models	MPX/SDX 26200-50S	MPX/SDX 26160-50S	MPX/SDX 26100-50S
<b>Attributes</b>			
Memory	256 GB	256 GB	256 GB
Ethernet ports <sup>1</sup>	4 × 50GE QSFP28; 16 × 25GE SFP28		
Transceivers support	50GE/100GE QSFP28: SR4; 40GE QSFP+: SR4; 25GE SFP28: SR (Adapter required); 10GE SFP+: SR, LR (Adapter required)		
RAID support	Yes	Yes	Yes
<b>Performance</b>			
System throughput (Gbps) [L7 throughput]	200	160	100
L7 HTTP requests/sec	5,700,000	5,000,000	4,500,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	522,000	358,000	283,000
ECDHE transactions/sec	230,000	165,000	120,000
SSL throughput (Gbps)	120	100	80
Compression throughput (Gbps)	22	16	13
ICA Proxy/SSL VPN concurrent users	20,000	20,000	20,000
Included instances, maximum instances (on SDX models)	115, 115	70, 115	20, 115
<b>Mechanical, environmental, and regulatory</b>			
Power supplies	2		
Input voltage, frequency range	100–120V/200–240V 50–60Hz		
Optional DC power supply	No		
Power supply	1200W		
Typical, max power consumption	670W, 809W		
Weight (lb)	48		
Height	2U		
Width	EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets		
Depth	71.1 cm (28 in)		
Operating temperature	0–45°C (32–113°F)		
Allowed relative humidity	5%–95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	2U1P2A		

**Notes:**

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 26000-50S series have 80plus gold rating for power supply.

NetScaler models	MPX/SDX 26200	MPX/SDX 26160	MPX/SDX 26100
<b>Attributes</b>			
Memory	256 GB	256 GB	256 GB
Ethernet ports <sup>1</sup>	8 × 50GE QSFP28; 16 × 25GE SFP28		
Transceivers support	50GE QSFP28 Port: 50GE/100GE QSFP28: SR4; 40GE QSFP+: SR4; 25GE SFP28: SR (Adapter required); 10GE SFP+: SR, LR (Adapter required); 25GE SFP28 Port: 25GE SFP28: SR; 10GE SFP+: SR, LR		
RAID support	Yes	Yes	Yes
<b>Performance</b>			
System throughput (Gbps) [L7 throughput]	200	160	100
L7 HTTP requests/sec	5,400,000	4,300,000	3,800,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	310,000	220,000	140,000
ECDHE transactions/sec	135,000	120,000	100,000
SSL throughput (Gbps)	80	64	51
Compression throughput (Gbps)	22	17	13
ICA Proxy/SSL VPN concurrent users	20,000	20,000	20,000
Included instances, maximum instances (on SDX models)	115, 115	70, 115	20, 115
<b>Mechanical, environmental, and regulatory</b>			
Power supplies	2		
Input voltage, frequency range	100-240 VAC full range, 50-60 Hz		
Optional DC power supply	Yes		
Power supply	1000W		
Typical, max power consumption	583W, 718W		
Weight (lb)	48		
Height	2U		
Width	EIA 310-D, IEC 60297, DIN 41494 SC48D rack width with mounting brackets		
Depth	71.1 cm (28 in)		
Operating temperature	0-45°C (32-113°F)		
Allowed relative humidity	5%-95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	2U1P1D		

**Notes:**

- 1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.
- 2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.
- 3 All 26000 series have 80plus gold rating for power supply.

# NetScaler models

MPX/SDX 16200

MPX/SDX 16160

MPX/SDX 16120

## Attributes

Memory	128 GB, 256 GB	128 GB, 256 GB	128 GB, 256 GB
Ethernet ports <sup>1</sup>	4 × 100G QSFP28 + 8 × 25GE SFP28		
Transceivers support	100G ports: QSFP28: SR4; 40G QSFP+: SR4, LR4 & BiDi LR Adapter required: 25G/10G SFP28: SR; 10G/1G SFP+: SR, LR 25G ports: 25G/10G SFP28: SR; 10G/1G SFP+: SR, LR; 1GBase-T SFP		
RAID support	Yes	Yes	Yes

## Performance

System throughput (Gbps) [L7 throughput]	200	160	100
L7 HTTP requests/sec	5,800,000	5,500,000	5,400,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	270,000	250,000	220,000
ECDHE transactions/sec	125,000	115,000	100,000
SSL throughput (Gbps)	115	110	105
Compression throughput (Gbps)	36	34	32
ICA Proxy/SSL VPN concurrent users	45,000	38,000	35,000
Included instances, maximum instances (on SDX models)	55, 55	55, 55	55, 55

## Mechanical, environmental, and regulatory

Power supplies	2
Input voltage, frequency range	100–240 VAC full range 50–60 Hz 7.0–2.6A
Optional DC power supply	Yes
Power supply	850W
Typical, max power consumption	465 W, 584 W
Weight (lb)	56
Height	2U
Width	EIA 310-D for 19-inch racks
Depth	71.1 cm (28 in)
Operating temperature	0–45°C (32–113°F)
Allowed relative humidity	5%–95%, Non-condensing
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)
Regulatory compliance	RoHS, WEEE, REACH
NetScaler compliance regulatory model	2U2P3A

### Notes:

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 16000 series have 80plus platinum rating for power supply.

NetScaler models			
	MPX/SDX 16100	MPX/SDX 16080	MPX/SDX 16060
<b>Attributes</b>			
Memory	128 GB, 256 GB	128 GB, 256 GB	128 GB, 256 GB
Ethernet ports <sup>1</sup>	4 × 100G QSFP28 + 8 × 25GE SFP28		
Transceivers support	100G ports: QSFP28: SR4; 40G QSFP+: SR4, LR4 & BiDi LR Adapter required: 25G/10G SFP28: SR; 10G/1G SFP+: SR, LR 25G ports: 25G/10G SFP28: SR; 10G/1G SFP+: SR, LR; 1GBase-T SFP		
RAID support	Yes	Yes	Yes
<b>Performance</b>			
System throughput (Gbps) [L7 throughput]	100	80	60
L7 HTTP requests/sec	5,200,000	5,000,000	4,500,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	190,000	170,000	125,000
ECDHE transactions/sec	85,000	75,000	54,000
SSL throughput (Gbps)	100	80	60
Compression throughput (Gbps)	30	28	26
ICA Proxy/SSL VPN concurrent users	33,000	32,000	30,000
Included instances, maximum instances (on SDX models)	50, 55	45,55	40, 55
<b>Mechanical, environmental, and regulatory</b>			
Power supplies	2		
Input voltage, frequency range	100–240 VAC full range 50–60 Hz 7.0–2.6A		
Optional DC power supply	Yes		
Power supply	850W		
Typical, max power consumption	465 W, 584 W		
Weight (lb)	56		
Height	2U		
Width	EIA 310-D for 19-inch racks		
Depth	71.1 cm (28 in)		
Operating temperature	0–45°C (32–113°F)		
Allowed relative humidity	5%–95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	2U2P3A		

Notes: \* It is not possible to convert a MPX 16000 to SDX 16000 once deployed.

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 16000 series have 80plus platinum rating for power supply.

# NetScaler models

MPX/SDX 16040

MPX/SDX 16030

## Attributes

Memory	128 GB, 256 GB	128 GB, 256 GB
Ethernet ports <sup>1</sup>	4 × 100G QSFP28 + 8 × 25GE SFP28	
Transceivers support	100G ports: QSFP28: SR4; 40G QSFP+: SR4, LR4 & BiDi LR Adapter required: 25G/10G SFP28: SR; 10G/1G SFP+: SR, LR 25G ports: 25G/10G SFP28: SR; 10G/1G SFP+: SR, LR; 1GBase-T SFP	
RAID support	Yes	Yes

## Performance

System throughput (Gbps) [L7 throughput]	40	30
L7 HTTP requests/sec	4,200,000	3,500,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	60,000	52,000
ECDHE transactions/sec	32,000	22,000
SSL throughput (Gbps)	40	30
Compression throughput (Gbps)	24	22
ICA Proxy/SSL VPN concurrent users	27,000	20,000
Included instances, maximum instances (on SDX models)	30, 55	20, 55

## Mechanical, environmental, and regulatory

Power supplies	2	
Input voltage, frequency range	100–240 VAC full range 50–60 Hz 7.0–2.6A	
Optional DC power supply	Yes	
Power supply	850W	
Typical, max power consumption	465 W, 584 W	
Weight (lb)	56	
Height	2U	
Width	EIA 310-D for 19-inch racks	
Depth	71.1 cm (28 in)	
Operating temperature	0–45°C (32–113°F)	
Allowed relative humidity	5%–95%, Non-condensing	
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1	
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)	
Regulatory compliance	RoHS, WEEE, REACH	
NetScaler compliance regulatory model	2U2P3A	

Notes: \* It is not possible to convert a MPX 16000 to SDX 16000 once deployed.

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 16000 series have 80plus platinum rating for power supply.

NetScaler models	MPX/SDX 15120	MPX/SDX 15100	MPX/SDX 15080
<b>Attributes</b>			
Memory	128 GB	128 GB	128 GB
Ethernet ports <sup>1</sup>	16 × 25GE SFP28	16 × 25GE SFP28	16 × 25GE SFP28
Transceivers support	25GE SFP28: SR; 10GE SFP+: SR, LR		
RAID support	Yes	Yes	Yes
<b>Performance</b>			
System throughput (Gbps) [L4/L7 throughput]	120	100	80
L4/L7 HTTP requests/sec	3,900,000	3,600,000	3,500,000
L4 connections/sec	5,500,000	5,100,000	5,000,000
L4 concurrent sessions	65,000,000	65,000,000	60,000,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	160,000	140,000	127,000
ECDHE transactions/sec	65,000	58,000	53,000
SSL throughput (Gbps)	74	70	60
Compression throughput (Gbps)	10.7	10.5	9.3
ICA Proxy/SSL VPN concurrent users	20,000	18,000	16,000
Included instances, maximum instances (on SDX models)	55, 55	55, 55	55, 55
<b>Mechanical, environmental, and regulatory</b>			
Power supplies	2		
Input voltage, frequency range	100–240 VAC full range 50–60 Hz		
Optional DC power supply	Yes		
Power supply	1000W		
Typical, max power consumption	395W, 520W		
Weight (lb)	60		
Height	2U		
Width	EIA 310-D for 19-inch racks		
Depth	71.1 cm (28 in)		
Operating temperature	0–45°C (32–113°F)		
Allowed relative humidity	5%–95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	2U1P1A		

**Notes:**

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 15000 series have 80plus gold rating for power supply.

# NetScaler models

MPX/SDX 15060

MPX/SDX 15040

## Attributes

Memory	128 GB	128 GB
Ethernet ports <sup>1</sup>	16 × 25GE SFP28	16 × 25GE SFP28
Transceivers support	25GE SFP28: SR; 10GE SFP+: SR, LR	
RAID support	Yes	Yes

## Performance

System throughput (Gbps) [L4/L7 throughput]	60	40
L4/L7 HTTP requests/sec	3,200,000	3,000,000
L4 connections/sec	4,600,000	4,400,000
L4 concurrent sessions	56,000,000	51,000,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	110,000	66,000
ECDHE transactions/sec	45,000	28,000
SSL throughput (Gbps)	50	40
Compression throughput (Gbps)	8.5	7.8
ICA Proxy/SSL VPN concurrent users	15,000	14,000
Included instances, maximum instances (on SDX models)	40, 55	30, 55

## Mechanical, environmental, and regulatory

Power supplies	2
Input voltage, frequency range	100–240 VAC full range 50–60 Hz
Optional DC power supply	Yes
Power supply	1000W
Typical, max power consumption	395W, 520W
Weight (lb)	60
Height	2U
Width	EIA 310-D for 19-inch racks
Depth	71.1 cm (28 in)
Operating temperature	0–45°C (32–113°F)
Allowed relative humidity	5%–95%, Non-condensing
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)
Regulatory compliance	RoHS, WEEE, REACH
NetScaler compliance regulatory model	2U1P1A

### Notes:

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 15000 series have 80plus gold rating for power supply.

# NetScaler models

MPX/SDX 15030

MPX/SDX 15020

## Attributes

Memory	128 GB	128 GB
Ethernet ports <sup>1</sup>	16 × 25GE SFP28	16 × 25GE SFP28
Transceivers support	25GE SFP28: SR; 10GE SFP+: SR, LR	
RAID support	Yes	Yes

## Performance

System throughput (Gbps) [L4/L7 throughput]	30	20
L4/L7 HTTP requests/sec	2,800,000	2,500,000
L4 connections/sec	4,200,000	3,300,000
L4 concurrent sessions	46,000,000	38,000,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	42,000	24,000
ECDHE transactions/sec	20,000	10,000
SSL throughput (Gbps)	30	20
Compression throughput (Gbps)	7.2	6.4
ICA Proxy/SSL VPN concurrent users	12,000	11,000
Included instances, maximum instances (on SDX models)	20, 55	5, 55

## Mechanical, environmental, and regulatory

Power supplies	2
Input voltage, frequency range	100–240 VAC full range 50–60 Hz
Optional DC power supply	Yes
Power supply	1000W
Typical, max power consumption	395W, 520W
Weight (lb)	60
Height	2U
Width	EIA 310-D for 19-inch racks
Depth	71.1 cm (28 in)
Operating temperature	0–45°C (32–113°F)
Allowed relative humidity	5%–95%, Non-condensing
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)
Regulatory compliance	RoHS, WEEE, REACH
NetScaler compliance regulatory model	2U1P1A

### Notes:

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 15000 series have 80plus gold rating for power supply.

NetScaler models		MPX/SDX 9195	MPX/SDX 9180	MPX/SDX 9160	MPX/SDX 9140
<b>Attributes</b>					
Memory	64 GB	64 GB	64 GB	64 GB	64 GB
Ethernet ports <sup>1</sup>	8 × 25GE SFP28				
Transceivers support	25GE SFP28: SR; 10GE SFP+: SR, LR				
RAID support	No	No	No	No	No
<b>Performance</b>					
System throughput	95	80	60	40	
L7 HTTP request/second	2,800,000	2,500,000	2,200,000	2,000,000	
SSL transactions/second (2k key certificates) <sup>2</sup>	90,000	75,000	60,000	45,000	
EDCHE transactions/second	39,000	32,000	25,000	19,000	
SSL throughput (Gbps)	55	50	45	38	
Compression throughput (Gbps)	11.9	10.2	9.0	7.7	
ICA Proxy concurrent users	30,000	27,000	24,000	20,000	
Included instances	7/7	7/7	7/7	7/7	
<b>Mechanical, environmental, and regulatory</b>					
Power supplies	2				
Input voltage, frequency range	100-240 VAC full range, 50-60 Hz				
Optional DC power supply	No				
Power supply	450W				
Typical, max power consumption	250W, 282W				
Weight (lb)	37				
Height	1U				
Width	EIA 310-D for 19-inch racks				
Depth	61 cm; 24 in				
Operating temperature	0–45°C (32–113°F)				
Allowed relative humidity	5%–95%, Non-condensing				
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1				
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)				
Regulatory compliance	RoHS, WEEE, REACH				
NetScaler compliance regulatory model	1U2P2A				

#### Notes:

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 9100 series have 80plus platinum rating for power supply.

NetScaler models	MPX/SDX 9130	MPX/SDX 9120	MPX 9110
Attributes			
Memory	64 GB	64 GB	64 GB
Ethernet ports <sup>1</sup>	8 × 25GE SFP28	8 × 25GE SFP28	8 × 25GE SFP28
Transceivers support	25GE SFP28: SR; 10GE SFP+: SR, LR		
RAID support	No		
Performance			
System throughput (Gbps) [L4/L7 throughput]	30	20	10
L4/L7 HTTP requests/sec	1,700,000	1,500,000	1,200,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	35,000	25,000	15,000
ECDHE transactions/sec	15,000	11,000	6,900
SSL throughput (Gbps)	30	20	10
Compression throughput (Gbps)	6.2	5.4	4.3
ICA Proxy/SSL VPN concurrent users	17,000	14,000	12,000
Included instances, maximum instances (on SDX models)	7, 7	4, 7	N/A
Mechanical, environmental, and regulatory			
Power supplies	1 (2nd optional)		
Input voltage, frequency range	100–240 VAC full range, 50–60 Hz		
Optional DC power supply	No		
Power supply	450W		
Typical, max power consumption	250W, 282W		
Weight (lb)	37		
Height	1U		
Width	EIA 310-D for 19-inch racks		
Depth	61 cm; 24 in		
Operating temperature	0–45°C (32–113°F)		
Allowed relative humidity	5%–95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	1U2P2A		

Notes: \* It is not possible to convert a MPX 16000 to SDX 16000 once deployed.

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 9100 series have 80plus platinum rating for power supply.

NetScaler models			
	MPX 5910	MPX 5905	MPX 5901
Attributes			
Memory	16 GB	16 GB	16 GB
Ethernet ports <sup>1</sup>	2 × 10GE SFP; 6 × 10/100/1000 CU		
Transceivers support	10GE SFP+: SR, LR; 1GE SFP: CU		
RAID support	No		
Performance			
System throughput (Gbps) [L4/L7 throughput]	10	5	1
L4/L7 HTTP requests/sec	900,000	700,000	400,000
SSL transactions/sec (2k key certificates) <sup>2</sup>	12,000	6,000	4,000
ECDHE transactions/sec	6,000	3,000	1,700
SSL throughput (Gbps)	8	5	1
Compression throughput (Gbps)	2.5	1.5	1
ICA Proxy/SSL VPN concurrent users	7,500	5,000	2,500
Included instances, maximum instances (on SDX models)	N/A	N/A	N/A
Mechanical, environmental, and regulatory			
Power supplies	1 (2nd optional)		
Input voltage, frequency range	100–127/200–240V 50/60Hz		
Optional DC power supply	Yes		
Power supply	450W		
Typical, max power consumption	154W, 187W		
Weight (lb)	25		
Height	1U		
Width	EIA 310-D for 19-inch racks		
Depth	61 cm; 24 in		
Operating temperature	0–45°C (32–113°F)		
Allowed relative humidity	5%–95%, Non-condensing		
Safety certifications	IEC/EN/UL/CSA/AS/NZS 62368-1 and 60950-1		
Electromagnetic emissions certifications & susceptibility standard	US (FCC (Part 15 Class A)), Canada (ICES-003), EU (CE (EN 55032/55035)), Australia/NZ (RCM), Japan (VCCI), Korea (KCC), Taiwan (BSMI), China (CCC), India (BIS), EAEU (EAC), Saudi Arabia (CITC), Brazil (Anatel), South Africa (ICASA), Mexico (NOM), Egypt (NTRA)		
Regulatory compliance	RoHS, WEEE, REACH		
NetScaler compliance regulatory model	1U1P1A		

Notes: \* It is not possible to convert a MPX 16000 to SDX 16000 once deployed.

1 Published ethernet interfaces compliant per IEEE802.3-2002/2005/2008/2012.

2 Performance varies depending on ciphers deployed. Contact your NetScaler sales representative for details.

3 All 5900 series have 80plus gold rating for power supply.

## Technical details

### NetScaler gateway

- Provides consolidation of secure remote access infrastructure with one URL
- Provides SAML 2.0 federated identity to provide single sign-on (SSO) across all applications, whether in a data center or in a cloud
- One URL to access any application
- AlwaysON allows auto-reconnect of SSL VPN session when users are moving between networks
- AlwaysON VPN allows to establish a VPN connection before Windows logon that help admin manage the laptop remotely
- Integration with StoreFront allows importing UI changes from StoreFront to Gateway portal and vice versa
- Gateway Insight for monitoring and troubleshooting all Gateway traffic for issues like authentication, EPA, single sign-on failures, etc.
- Factor authentication for all applications
- Stateless RDP proxy
- Support for Linux (Ubuntu 18/020)
- Support for Mac (OS X 10.14 and above)
- Support for Windows 11, 10, 8.1, 8
- Support for iOS 12 or later. Compatible with iPhone, iPad, and iPod touch.
- Support for Android 7.0 and later

### Secure access

- Citrix Virtual Apps and Desktops and Citrix Endpoint Management, formerly XenMobile, integration
- Device certificate scanning
- Single sign-on using NTLM/Kerberos/SAML, and more
- SmartAccess: Adaptive application and action control enforced on Citrix Virtual Apps and Desktops servers
- SmartControl: Adaptive application and action control enforced on NetScaler gateway, thereby providing centralized policy management and security at the edge
- Integrated NetScaler gateway SSL VPN
- For ADC versions after 11.1, NetScaler Standard edition includes (500) Universal licenses, Enterprise or Advanced editions include (1000) Universal licenses, and there are no Universal license requirements with Platinum or Premium editions
- Endpoint analysis of user device
- SAML 2.0 and n Factor; passwords for single sign on to applications running behind NetScaler gateway
- AAA traffic management
- SAML 2.0 and NTLMv1/2 support for configuring ADC with single sign-on (SSO)
- Support for Active Directory, LDAP, OCSP, etc.

### L4-7 traffic management

#### Layer 4 load balancing (LB)

- Protocols supported: TCP, UDP, FTP, HTTP, HTTPS, DNS (TCP and UDP), SIP (over UDP), RTSP, SQL, RDP, IS-IS, SMPP
- 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, SESSIONID
- Session protocols: TCP, UDP, SSL\_TCP, Multi-path TCP, SPDY
- 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
- 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

### Clustering

- Scale-Out by clustering up to 32 NetScaler appliances into single system image and up to 6.4 Tbps throughput
- Configuration coordinator node for centralized management and synchronization
- Traffic distribution mechanisms include: Equal Cost Multiple Path (ECMP), Link-sets, and Cluster Link Aggregation Group (CLAG)
- Available on NetScaler MPX, SDX, and VPX
- Modules may be configured on all nodes in a cluster or using "spotted VIPs," in which they are added only to a select subset of nodes

### e-based policy enforcement

- Trigger ADC 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, AGE SSL, VPN users
- Site health checking on status, connection load, packet rate, SNMP-provided metrics

### Surge protection and priority queuing

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

### Carrier-grade network address translation

- Support for: Full-cone NAT, Deterministic NAT, Endpoint-Independent Mapping and Filtering, Hairpinning
- Application Layer Gateways: FTP, TFTP, ICMP, SIP, RTSP, PPTP, GRE

### Subscriber-aware traffic steering

- Policy control interface: Gx, RADIUS

## Application acceleration

### TCP optimization

- Multiplexing, buffering, connection keep-alive, windows scaling, selective acknowledgement, fast ramp, TCP Westwood
- AppCompress
- Gzip-based compression for HTTP traffic AppCache3
- 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

### 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

### SSL encryption

- Supports Thales nShield and SafeNet HSM integration

### 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)

### Bot mitigation

Integrated bot mitigation identifies automated threats using:

- IP address lists
- Dynamic IP reputation
- Known bot signatures
- Device fingerprinting
- Behavioral analysis

Once bots are identified traffic can be mitigated via:

- Dropped
- Rate limited
- Redirected to another resources
- Challenged with CAPTCHA

### API gateway

NetScaler has enterprise-grade API gateway functionality integrated to protect APIs from attack and abuse

- Discover unknown and shadow APIs

Secure API communications via NetScaler's authentication, authorization, auditing and rate limiting, content routing, rewriting, bot management and WAF functionality

### NetScaler web app firewall with hybrid security models

- 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 automatically updated 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 proxy and encryption
- SOAP array attack protection

### IP reputation service

- Enhanced service that provides a continuously updated list of malicious IP addresses in near realtime

### Support for Citrix Endpoint Management MDMs

- Front end optimization scalable to over 100,000 concurrent users
- NetScaler Gateway connector for Exchange ActiveSync provides a device level authorization service
- Application level policy controlled SSL VPN tunneling for mobile clients

### Network integration

- Static routes, monitored static routes, weighted static routes
- OSPF, RIP1/2, BGP2
- VLAN 802.1Q
- Link Aggregation 802.3ad
- Stateful IPv6 to IPv4 network address translation and DNS64
- Static and stateless network address translation from IPv4 to IPv6

### High availability

- Active/Passive
- Active/Active
- VRRP
- ECMP
- Connection mirroring

### 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 configuration wizards for monitoring
- Citrix Virtual Apps configuration wizards

#### Policy management

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

#### Command center

- Centralized configuration and management of over 200 NetScaler appliances

### NetScaler Application Delivery Management

- NetScaler ADM is a software solution enabling traffic visibility; it includes HDX insight and Web Insight and is based on AppFlow
- HDX insight parses ICA sessions to provide troubleshooting, network analysis, and end-to-end performance for Citrix Virtual Apps and Desktops sessions. Historical data included in Premium Edition.
- Web insight monitors real-time web application traffic and assists capacity planning and helps ensure SLAs
- AppFlow standards-based
- NetFlow/PFIX (Internet Protocol Information Export) solution
- Supported by leading performance monitoring and management vendors
- Provides transaction level visibility for HTTP, SSL, TCP, and SSL/TCP flows

### Action analytics

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

### Third-party management support

- SNMPv1, SNMPv2, and SNMPv3: NetScaler MIB and
- MIB-II support
- Terraform infrastructure as code support
- Ansible automation support
- XML/SOAP API for automated application-driven configuration

### Real-time consolidated logging

- Offloads logging from application server to a central location

#### Locations