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NetScaler Data Sheet

Enabling high-performance multi-cloud application delivery

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 factors 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.

With Citrix Universal Hybrid Multi-Cloud License and Citrix Platform License, you can 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

NetScaler form factors

NetScaler MPX

NetScaler MPX is a software model that provides powerful 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

NetScaler resources

Citrix Universal Hybrid Multi-Cloud License and Citrix Platform License (CPL) gives you the flexibility to reallocate throughput and instance licenses across your hybrid cloud environments.

The ability to reallocate NetScaler resources allows you to automatically scale or move your ADCs along with your compute infrastructure to meet application demand. This gives you a more agile and cost-effective way to manage application delivery.

and groups. Deploying multiple virtual instances of NetScaler on one hardware appliance allows for the consolidation of multiple load balancers and application rollout.

NetScaler VPX

NetScaler VPX is a virtual form factor that provides capabilities typically offered only on specialized, high-end network devices. Deploy NetScaler VPX on your preferred hypervisor and achieve high SSL performance with no hardware acceleration.

NetScaler CPX

NetScaler CPX is a containerized form factor that provides load balancing and traffic management for your containerized applications. You can deploy one or more NetScaler CPXs as standalone instances on a Docker host.

NetScaler BLX

NetScaler BLX for bare metal runs as a Linux process on your hardware of choice. Because NetScaler BLX is a lightweight software package with no hypervisor or container overhead, you get extraordinarily fast performance. And there's no additional cost for hypervisor software.

NetScaler for public cloud

NetScaler is easy to deploy across on-premises and public cloud environments including AWS, Azure, and Google Cloud Platform. Purchase licenses from the cloud marketplaces or simply bring your own.

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.

Key NetScaler links

Compare features by subscription
Engage with the NetScaler Community
Leverage NetScaler Github

NetScaler pooled capacity has four components:

1. NetScaler instances come in two types: software instances and zero-capacity hardware.

• Softwareinstances:YoucandeployNetScaleras software through virtual machine (VPX), container (CPX), and bare metal (BLX) instances.

• Zero-capacity hardware: When NetScaler is deployed as hardware using Citrix Universal Hybrid Multi-Cloud License or Citrix Platform License, it is referred to as "zero-capacity hardware." This hardware cannot function without applying appropriate throughput capacity. The designation "z" is used to denote zero-capacity hardware appliances.

2. Instance pool: The instance pool defines the total number of NetScaler instances available via Citrix Universal Hybrid Multi-Cloud License or Citrix Platform License. With both of these licenses, you are allotted unlimited instances.

3. Throughput pool: From a single pool, you can dynamically allocate throughput among all NetScaler ADCs as needed to meet your changing business requirements.

4. NetScaler Console (formerly NetScaler ADM): Citrix Universal Hybrid Multi-Cloud License and Citrix Platform License use NetScaler Console (Service or On-Premises) to deploy software licenses for instances and throughput. When NetScaler Console checks out licenses from instance and throughout resource pools, the chosen NetScaler form factor and model will predetermine:

• The minimum throughput and the number of instances that a NetScaler appliance must check out before being functional

• Them aximum throughput and the number of instances that a NetScaler can support

• The minimum throughput unit for each throughput check-out

Zero-capacity hardware

NetScaler hardware	MPX/SDX 16000Z	MPX/SDX 9100Z
Attributes		
Memory	128 GB, 256 GB	64 GB
Ethernet ports[1]	4 x 100G QSFP28 8 x 25GbE SFP28	8 x 25GbE SFP28
Transceivers support	QSFP28: 50/100GbE QSFP28 SR4, LR4, AoC, DAC 40GbE QSFP+ SR4, LR4, BiDi, AoC, DAC 25/10GbE SFP28 SR (Adapter required) 10/1GbE SFP+: SR, LR (Adapter required) SFP28: 25/10GbE SFP28 SR, DAC 10/1GbE SFP+ SR, LR 10GbE DAC 1GBase-T	SFP28: 25/10GbE SFP28 SR, DAC 10/1GbE SFP+ SR, LR 10GbE DAC 1GBase-T
Performance		
System throughput (Gbps) [L7 throughput]	30-250	10-95
L7 HTTP requests/sec	Up to 7,500,000	Up to 3,000,000
SSL transactions/sec (2k key certificates)[2]	Up to 280,000	Up to 90,000
2 ECDHE transactions/sec	Up to 125,000	Up to 39,000
SSL throughput (Gbps)	Up to 130	Up to 55
Compression throughput (Gbps)	Up to 43	Up to 12
ICA Proxy/SSL VPN concurrent users	Up to 30,000	Up to 17,000
SDX instances	1-55	1-7
Mechanical, environmental, and regulatory		
Power supplies	2	2
Input voltage, frequency range	100–240 VAC full range, 50–60 Hz 7.0–2.6 A	100–240 VAC full range, 50–60 Hz
Optional DC power supply	No	No
Power supply	850W	450W
Typical, max power consumption	465W, 584W	250W, 282W
Weight (lb)	56	37
Height	2U	1U
Width	EIA 310-D for 19-inch racks	
Depth	71.1 cm (28 in)	61 cm; 24 in
Operating temperature	0–45°C (32-113°F)	0–45°C (32–113°F)
Allowed relative humidity	5%–95%, Non-condensing	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	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 16000 and 9100 series have 80plus platinum rating for power supply.

Zero-capacity hardware

NetScaler hardware	MPX/SDX 26000Z-50S
Attributes	
Memory	256 GB
Ethernet ports[1]	4 x 50GE QSFP28; 16 x 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
Performance	
System throughput (Gbps) [L7 throughput]	100–200
L7 HTTP requests/sec	Up to 5,700,000
SSL transactions/sec (2k key certificates)[2]	Up to 522,000
2 ECDHE transactions/sec	Up to 230,000
SSL throughput (Gbps)	Up to 120
Compression throughput (Gbps)	Up to 22 20,000
ICA Proxy/SSL VPN concurrent users	1-115
SDX instances	1-55
Mechanical, environmental, and regulatory	
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 2U1P2A
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 26000-50S and 5900 series have 80plus gold rating for power supply.

NetScaler software

NetScaler VPX for on-premises							
Performance range	Minimum memory[1]	vCPUs[2]	ESXi	KVM	XenServer	Hyper-V	Recommended network driver
41 Gbps - 100 Gbps	2GB	2–20	●	●			PCI passthrough
26 Gbps - 40 Gbps	2GB	2–20	●	●	●		SRI-IOV
16 Gbps - 25 Gbps	2GB	2–16	●	●	●		SRI-IOV
11 Gbps - 15 Gbps	2GB	2–12	●	●	●		VMXNET3 or SR-IOV4
9Gbps-10Gbps	2GB	2–10	●	●	●		VMXNET3 or SR-IOV4
4Gbps-8Gbps	2GB	2–6	●	●	●		VMXNET3 or paravirtualization
10Mbps-3Gbps	2GB	2–4	●	●	●	●	VMXNET3 or paravirtualization

Performance[4]	Minimum	Maximum
System throughput	10 Mbps	100 Gbps
SSL transactions/sec (2k key certificates)	1,100	20,000
SSL ECDHE transactions/sec (2k key certificates)	880	17,280
SSL throughput	10 Mbps	30 Gbps

More info: NetScaler VPX production documentation

NetScaler for Public Cloud: AWS, Azure, and Google Cloud Platform

Note:
Hypervisor versions: For details on hypervisor support, visit the Support matrix and usage guidelines on the NetScaler documentation site.

1. For the optimal performance, irrespective of the license, we recommend 4 GB memory per vCPU (e.g., for a VPX with 6 vCPUs, we recommend having 24GB memory allocated).
2. Processors supported: Intel VTx and AMD processors on ESXi from 13.1–4.x release.
3. VMXNET3 is supported on ESXi versions only.
4. Performance validated for XenServer using SR-IOV only.
5. For each VPX, one vCPU will be allotted to MGMT and all others are PE(s).

NetScaler software

NetScaler CPX for containers

Model	Minimum memory	vCPUs	Throughput	Supported container managers
CPX	1 GB	1–7	1–10 Gbps	• Docker version 1.12 and above • Kubernetes • Red Hat OpenShift • Amazon Elastic Kubernetes Service (EKS) • Azure Kubernetes Service (AKS) • Google Kubernetes Engine (GKE) • Rancher • Pivotal Container Service (PKS)

Model	1 Core	1 Core (Sidecar CPX)	3 Cores	7 Cores
System resources				
Maximum vCPUs 1 1 3 7	1	1	3	7
Maximum memory	2	1	6	14
Performance[1]				
HTTP throughput (Gbps)[2]	4.6	4.6	6.5	11.3
SSL 2k throughput (Gbps)	1.17	1.17	2.07	5.4
HTTP requests/sec	193,500	193,500	303,300	577,800
SSL transactions/sec (2k key certificates)	1,125	1,197	2,250	6,520
SSL transactions/sec (ECDHE- RSA[2k])	1,004	1,020	1,962	3,987

More info: NetScaler CPX production documentation

Note:

1. Network Driver: 2x Xeon CPU E5-2687W v3 20 Physical Cores @ 3.0 GHz, OS: Centos 7.6, CPX version: 13.0-39.4, NIC: 2x40 Gbps XL710 (Dual Port).

2. 2ThisisnetworkI/Oboundperformance.Youmayachievehigherperformancebasedonpacketprocessingsize.

NetScaler BLX for bare metal

BLX models	Minimum memory	vCPUs	Throughput	Supported container managers
Non-DPDK	4 GB	1–28	1–12 Gbps	CentOS, Oracle Linux, Ubuntu Linux, Red Hat Enterprise Linux (RHEL), Linux, Amazon Linux
DPDK	4 GB	1–28	1–100 Gbps	CentOS, Oracle Linux, Ubuntu Linux, Red Hat Enterprise Linux (RHEL), Linux, Amazon Linux

More info: NetScaler BLX production documentation

Note: All BLX vCPUs are allocated as PEs.

NetScaler Software Models (Fixed Capacity section)

NetScaler models	MPX 9120 Premium edition	MPX 9110 Advanced edition	MPX 9105 Premium edition
Attributes			
Memory	64 GB	64 GB	64 GB
Performance			
System throughput	20	10	5
L7 HTTP request/second	1,600,000	1,400,000	1,200,000
SSL transactions/second (2k key certificates)[2]	25,000	15,000	10,000
EDCHE transactions/second	11,000	6,900	5,000
SSL throughput (Gbps)	20	10	5
Compression throughput (Gbps)	6	5	4
ICA Proxy concurrent users	14,000	12,000	10,000

NetScaler Software Models (Fixed Capacity section)

NetScaler models	SDX 16060 Premium edition	SDX 16030 Premium edition
Attributes		
Memory	256 GB	256 GB
Performance		
System throughput	60	30
L7 HTTP request/second	5,000,000	4,600,000
SSL transactions/second (2k key certificates)[2]	125,000	52,000
EDCHE transactions/second	54,000	22,000
SSL throughput (Gbps)	60	30
Compression throughput (Gbps)	26	22
ICA Proxy concurrent users	30,000	20,000
Included instances (on SDX models)	40	20

NetScaler Software Models (Fixed Capacity section)

NetScaler models	MPX/SDX 8930	MPX/SDX 8920
Attributes		
Memory	32 GB	32 GB
Performance		
System Throughput (Gbps) [L4/L7 Throughput]	30	20
L4/L7 HTTP Requests/sec	2,100,000	1,700,000
L4 Connections/sec	1,800,000	1,200,000
L4 Concurrent Sessions	15,000,000	15,000,000
SSL Transactions/sec (2K Key Certificates)[2]	40,000	22,000
ECDHE Transactions/sec[4]	16,000	10,000
SSL Throughput (Gbps)	25	20
Compression Throughput (Gbps)	4.8	4
ICA Proxy/SSL VPN Concurrent Users	10,000	10,000
Included Instances, Maximum Instances (on SDX Platforms)	2,7	2,7

NetScaler Software Models (Fixed Capacity section)

NetScaler models	MPX 8910	MPX 8905
Attributes		
Memory	32 GB	32 GB
Performance		
System Throughput (Gbps) [L4/L7 Throughput]	10	5
L4/L7 HTTP Requests/sec	1,400,000	990,000
L4 Connections/sec	800,000	600,000
L4 Concurrent Sessions	14,000,000	13,000,000
SSL Transactions/sec (2K Key Certificates)[2]	13,000	8,000
ECDHE Transactions/sec[4]	6,000	4,000
SSL Throughput (Gbps)	10	5
Compression Throughput (Gbps)	3.5	2.5
ICA Proxy/SSL VPN Concurrent Users	10,000	10,000
Included Instances, Maximum Instances (on SDX Platforms)	N/A	N/A

NetScaler Software Models (Fixed Capacity section)

NetScaler models	MPX 5910	MPX 5905	MPX 5901
Attributes			
Memory	16 GB	16 GB	16 GB
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)[2]	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	5,000	5,000	5,000
Included Instances, Maximum Instances (on SDX Platforms)	N/A	N/A	N/A

NetScaler Software Models (Fixed Capacity section)

NetScaler models	VPX 1 Advanced	VPX 5 Premium	VPX 5 FIPS Premium
Attributes		See page 5	

NetScaler edition comparison matrix

NetScaler is available in Advanced and Premium editions

As of release 13.1

Feature	Advanced edition	Premium edition
Application availability		
L4 load balancing & L7 content switching	●	●
Microsoft SQL load balancing •	●	●
AppExpert rate controls	●	●
IPv6 support	●	●
Traffic domains	●	●
Subscriber-aware traffic steering	●	●
Global server load balancing (GSLB)	●	●
Carrier-grade network address translation (CGNAT)	●	●
Dynamic routing protocols	●	●
Surge protection & priority queueing	●	●
Clustering	●	●
Application acceleration		
Client & server TCP optimizations	●	●
Cache redirection	●	●
AppCompress	●	●
AppCache		●

Feature	Advanced edition	Premium edition
Application security		
L4 DoS defenses	●	●
L7 Dos defenses	●	●
L7 rewrite & responder	●	●
NetScaler Gateway Connector for Exchange ActiveSync	●	●
AAA for traffic management	●	●
NetScaler Web App Firewall (WAF)		●
Bot management		●
IP reputation		●
nFactor authentication	●	●
Content inspection	●	●
SSL forward proxy		●
Front-end optimization		
Content layout	●	●
Domain sharding	●	●
Image optimization	●	●
Style sheets & JavaScript optimization	●	●
TCP protocol optimization		
Multi-path TCP	●	●
BIC & Cubic TCP	●	●
Simple manageability		
NetScaler Application Delivery Management	●	●
AppExpert visual policy builder	●	●
Action analytics	●	●
AppExpert service callouts, templates, & visualizers	●	●
Role-based & AAA administration	●	●
Configuration wizards	●	●
Native Citrix web interface	●	●

Feature	Advanced edition	Premium edition
Application security		
NetScaler gateway	●	●
Federated identity	●	●
One URL/SSO using SAML 2.0		●
Centralized policy management (SmartControl)	●	●
Stateless RDP proxy	●	●
Microsoft Intune support	●	●
PCoIP support	●	●
Cluster for ICA proxy (striped)	●	●
Monitor Citrix Virtual Apps & Desktops traffic (real time)		●
Monitor Citrix Virtual Apps & Desktops traffic (historical)	●	●
Monitor NetScaler gateway traffic (real time)		●
Monitor NetScaler gateway traffic (historical)	●	●
Broad client support for plugins	●	●
Customizable web portal	●	●
SSL VPN remote access	●	●
ICA proxy to Citrix Virtual Apps & Desktops	●	●
Contextual policies for Citrix Virtual Apps & Desktops (SmartAccess)	●	●
Endpoint analysis	●	●
Secure browser-only access (CVPN)	●	●
Always-on	●	●
Integration with Citrix StoreFront	●	●