NetScaler software models

Enabling high-performance multi-cloud application delivery with software and containerized form factors

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.

NetScaler software form factors

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.

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NetScaler VP	NetScaler VPX for on-premises							
	Minimum						Recommended	
Model	Memory ₁	vCPUs ₂	ESXi	KVM	XenServer	Hyper-V	network driver	
VPX 100G	2 GB	2-20	٠	٠			PCI passthrough	
VPX 40G	2 GB	2-20	•	•	•		SRI-IOV	
VPX 25G	2 GB	2-16	•	•	•			
VPX 15G	2 GB	2-12	٠	•	•		VMXNET3₃ or SR-IOV₄	
VPX 10G	2 GB	2-10	•	•	•			
VPX 8000	2 GB	2-6	•	•	•			
VPX 5000	2 GB	2-6	•	٠	•		7	
VPX 3000	2 GB	2-4	•	•	•	•	VMXNET3₃ or paravirtualization	
VPX 1000	2 GB	2-4	•	•	•	•		
VPX 200	2 GB	2	•	•	•	•		

Performance ₄	Minimum	Maximum
System throughput	200 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	200 Mbps	30 Gbps

More info: <u>NetScaler VPX product documentation</u>

Hypervisor versions: For details on hypervisor support, visit the <u>Support matrix and usage guidelines</u> on the Citrix website.

1. For Advanced and Premium editions, VPX minimum memory requirement is 4 GB for up to 2 vCPUs. 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.

3. VMXNET3 is supported on ESXi versions only.

4. Performance validated for XenServer using SR-IOV onlu

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NetScaler VPX for public cloud

Model₅	AWS	Azure	GCP	
VPX 10	••	• •	••	
VPX 200	••	• •	••	
VPX 1000	••	••	••	
VPX 3000	••	••	••	
VPX 5000	••	• 2	••	
VPX 8000	•1	•2	• 3	
VPX 10000	• 1	• 2	• 3	
VPX 15000	•1	•2	• 3	
VPX 25000	•1	• 4	• 4	
VPX 40000	• 4	• 4	•4	

More info: NetScaler VPX product documentation

Note: • - means support for BYOL only and • • - means support for BYOL & marketplace subscription

1. AWS - VPX 8000, VPX 10G, VPX 15G, and VPX 25G, VPX40G and VPX 100G are applicable for BYOL only on AWS. With larger BYOL licenses, VPX can achieve up to 30 Gbps Max throughput and higher SSL TPS. EC2 instances should be selected based on the performance requirement. C5,C5n and M5 instance families are recommended for higher performance.

2. Azure - VPX 3000, VPX 5000, VPX 8000, VPX 10000, VPX 15000 needs an Azure instance which support accelerated networking (Standard_D4s_v4 and above). Cloud instance should also support the throughput as per license.

3. GCP - VPX 8000, VPX 10G, VPX 15G, and VPX 25G, VPX40G and VPX 100G are applicable for BYOL only on GCP. With larger BYOL licenses, VPX can achieve up to 15 Gbps Max throughput and higher SSL TPS

4. Higher bandwidth BYOL VPX license will not support the bandwidth as per license but CPU intensive work loads will get higher performance.

5. vCPU licenses are also supported and available as part of vCPU pooled.

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Vodel	Minimum memory	vCPUs	Throughput	Supported cor	tainer managers
СРХ	1 GB	1-7	1-10 Gbps	 Docker version 1.12 and above Kubernetes Red Hat OpenShift Amazon Elastic Kubernetes Ser (EKS) Azure Kubernetes Service (AKS) Google Kubernetes Engine (GKI) Rancher Pivotal Container Service (PKS) 	
		1 Core	1 Core (Sidecar CPX)	3 Cores	7 Cores
System re	sources				
Maximum v	/CPUs	1	1	3	7
Maximum memory		2	1	6	14
Performar	nceı				
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 product 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. This is network I/O bound performance. You may achieve higher performance based on packet processing size.

NetScaler BLX for bare metal

BLX models	Minimum memory	vCPUs	Throughput	Supported Linux distribution
Non-DPDK	4 GB	1-28	1-12 Gbps	CentOS, Oracle Linux, Ubuntu Linux, Red Hat Linux, Amazon Linux
DPDK	4 GB	1-28	1-100 Gbps	CentOS, Oracle Linux, Ubuntu Linux, Red Hat Linux, Amazon Linux

More info: NetScaler BLX product documentation

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