

# NetScaler VPX

## Virtualizing the power of advanced web and application delivery and remote access services

NetScaler VPX provides the complete NetScaler web and application load balancing, secure and remote access, acceleration, security and offload feature set in a simple, easy-to-install virtual appliance. IT organizations, cloud and telecom service providers of any size can deploy NetScaler VPX on industry standard hypervisors—on demand—anywhere in the datacenter.

Deploying applications can be time consuming, complex and costly. Applications need to be

continually deployed for new users and new devices. This can overwhelm the ability of IT departments and service providers to deliver applications on demand, adequate user performance, availability of applications and security. IT organizations are embracing virtualized infrastructure as a means to facilitate device consolidation, reduce costs and shuffle resources on-demand to rapidly respond to business needs.

### Key Benefits

- Reduces hardware server costs by 60%
- Accelerate application performance by 5x
- Provides consolidation of remote access infrastructure with One URL
- Improves application security with centralized policy management, and security at-the-edge of datacenter network
- Provide SSL VPN based remote access
- Ensures high availability
- Provide monitoring of application and network traffic

### NetScaler VPX – Enabling a virtual infrastructure

NetScaler VPX converges and consolidates networking infrastructure. NetScaler VPX makes functionality typically only offered on specialized, high-end network devices available as a virtual appliance that can be easily and dynamically deployed on a single server or across entire enterprise datacenters. The simplicity and flexibility of NetScaler VPX makes it easy and cost effective to fully optimize every application type. For example:

- Provide secure remote access and high availability for any application type like Citrix apps, web and enterprise apps, cloud and SaaS apps, and mobile apps
- Provision and de-provision NetScaler on-demand in test and lab environments, telecom service and cloud provider environments
- Cost effectively deploy full NetScaler functionality in front of applications, such as Microsoft SharePoint and Office Communication Server

### Unified Gateway

Unified Gateway is part of NetScaler Enterprise and Platinum editions and offers secure remote access to any application whether it be web, legacy client-server, SaaS, mobile or Citrix apps. In addition to the basic and advanced ICA proxy functionalities offered by NetScaler Gateway, Unified Gateway also provides:

- One URL for remotely accessing any application on any device type
- SAML 2.0 federated identity for enabling single sign-on across all application types
- Centralized policy management for XenApp and XenDesktop using SmartControl
- Anywhere access on iOS<sup>6</sup> and Android<sup>7</sup> mobile devices
- Support for Linux<sup>8</sup>, Mac<sup>9</sup>, and Windows<sup>10</sup> Operating systems

**Leverage in-place processing capacity**

With NetScaler VPX, IT and service providers can take full advantage of virtualized servers and associated resources that are already in place and deploy application delivery controllers and remote access SSL VPN gateways on-demand anywhere in any network or datacenter. NetScaler VPX is not dependent on specific server hardware, which enables enterprises to exploit low-cost, commodity server platforms. In addition, multiple NetScaler instances can be deployed on a single physical server to maximize utilization of hardware infrastructure. At the other end of the spectrum, service providers now have the option to utilize whatever special-purpose hardware—for example, NEBS compliant or DC-powered systems—from whatever source best meets their needs or internal standards.

**Protect infrastructure investments**

The ability to easily upgrade NetScaler VPX licenses and swap out underlying hardware platforms to up-size or down-size an implementation as needed represents a considerable degree of investment protection, especially relative to fixed form-factor alternatives. In addition, a broad range of price-performance combinations ensures that there is a good fit for every use case, from small-to-medium and departmental implementations to those typical of larger enterprises and service providers.

**Provision infrastructure on-demand**

NetScaler VPX enables organizations to dynamically provision crucial application delivery and remote access services in support of dynamically provisioned applications. With NetScaler VPX, individual applications and the functionality required to ensure their availability, performance and security can be spun up, spun down and even migrated as conditions dictate. Responsiveness is enhanced at the same time that the use (and re-use) of computing resources is optimized, further improving operational efficiency and automation.

**Customize web and application delivery**

IT organizations and service providers can mix physical and virtual appliances to create a web and application delivery fabric. Specifically, NetScaler MPX appliances can be deployed at the datacenter edge to address high-capacity network-wide actions while NetScaler VPX can be deployed, on-demand, deeper within the datacenter core to handle application-specific processor intensive actions—all managed via Citrix Command Center. This provides the lowest TCO and greatest flexibility. By exploiting the specific strengths of both physical and virtual appliances, the resulting web and application delivery fabric enables maximum functionality and flexibility at minimum cost. Further key advantages of this approach include:

- Tuning advanced delivery capabilities to meet the requirements of each specific application
- Separating and isolating application delivery services along different organizational boundaries

	VPX 3000	VPX 1000	VPX 200	VPX 10	NetScaler Gateway VPX
<b>NetScaler VPX system requirements <sup>1,2</sup></b>					
Processor <sup>3</sup>	2-4 vCPUs Intel VTx or AMD-V	2-4 vCPUs Intel VTx or AMD-V	2 vCPUs Intel VTx or AMD-V	2 vCPUs Intel VTx or AMD-V	2vCPUs
Memory <sup>4</sup>	2 GB	2 GB	2 GB	2 GB	Intel VTx or AMD-V
Hard drive	20 GB	20 GB	20 GB	20 GB	20 GB
Hypervisor			XenServer 6.0, 6.1 and 6.2 VMware ESXi 4.x, 5.1, 5.5 Microsoft Hyper-V 2008 R2, 2012 R1 KVM		
Pay as you grow license upgrade	N/A	Upgrade option to VPX 3000	Upgrade options to VPX 1000 and VPX 3000	Upgrade options to VPX 200, VPX 1000 and VPX 3000	N/A For Unified Gateway requirements, upgrade the license to NetScaler enterprise or above
<b>NetScaler VPX performance <sup>5</sup></b>					
System throughput	3000 Mbps	1000 Mbps	200 Mbps	10 Mbps	45 Mbps
SSL transaction/sec (2K key certificates)			Up to 750		
SSL throughput, Gpbs			Up to 1.0		
Compression throughput, Gpbs			Up to 0.75		
SSL VPN/ICA proxy concurrent users			Up to 1500		

1. The system requirements are in addition to hypervisor requirements.
2. Listed hardware requirements are for NetScaler VPX nCore version. NetScaler VPX classic builds are available with smaller hardware footprint and slightly reduced feature set.
3. VPX on Microsoft Hyper-V supports up to 2 vCPU.
4. The minimum memory requirement is 2GB. We recommend to add 2-4GB memory for every additional vCPU. If an enterprise or platinum VPX license is used, the minimum memory requirement is 4GB.
5. VPX performance depends on the underlying servers resources (e.g., CPU speed, CPU/memory allocated to the VPX), other guests VM running on the same server with VPX, and the hypervisor.
6. Requires iOS 7.1 or later. Compatible with iPhone, iPad and iPod touch.
7. Requires Android 4.1.x & 4.2.x (Jelly Bean), 4.4.x (KitKat), 5.x (Lollipop).
8. Ubuntu 14.04 32bit/64bit, Ubuntu 12.04 32bit/64bit.
9. OS X 10.9 (Mavericks), OS X 10.10 (Yosemite).
10. Windows 7, 8, and 8.1 (32bit/64bit).



#### About Citrix

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