

Virtualizing the power of advanced web application delivery services

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



Deploying web applications can be complex and costly. More applications need to be deployed to more users on more devices continually. This need can overwhelm the ability of IT departments to deliver adequate user performance, yet businesses demand that web applications always be available and secure. 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.

NetScaler VPX – Enabling a virtual infrastructure

Key benefits:

- Reduces server costs by 60%
- Accelerates web applications by five times
- Secures web applications
- Ensures high availability

Citrix® NetScaler® VPX converges virtualization and networking. 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 cloud datacenters. The simplicity and flexibility of NetScaler VPX make it easy and cost effective to fully optimize every web application. For example:

- Provide secure remote access and high availability for smaller Citrix® XenApp™ and Citrix® XenDesktop™ installations
- Include Citrix® NetScaler® within development, lab and test environments
- Provision and deprovision NetScaler VPX instances on-demand within service and cloud provider environments
- Cost effectively deploy full NetScaler functionality in front of web-based applications, such as Microsoft® SharePoint® and Office Communication Server

Leverage in-place processing capacity

With NetScaler VPX, IT can take full advantage of virtualized servers and associated resources that are already in place and deploy application delivery controllers 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 services in support of dynamically provisioned web 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 application delivery

IT organizations can mix physical and virtual appliances to create a web 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 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 1000	VPX 200	VPX 10
Performance			
HTTP throughput	1 Gbps	200 Mbps	10 Mbps
SSL encrypted throughput	1 Gbps	200 Mbps	10 Mbps
HTTP compression throughput	750 Mbps	200 Mbps	10 Mbps
Application firewall throughput	500 Mbps	200 Mbps	10 Mbps
Max concurrent TCP connections ¹	5 million	5 million	5 million
New SSL requests/second	500	500	500
Max concurrent SSL VPN users ²	300	300	300
Minimum system requirements per physical host³			
Hypervisor	-XenServer 5 Update 3 (or later) -VMWare ESX/ESXi 3.5 (or later)	-XenServer 5 Update 3 (or later) -VMWare ESX/ESXi 3.5 (or later)	-XenServer 5 Update 3 (or later) -VMWare ESX/ESXi 3.5 (or later)
Processor ⁴	-Dual core server -Intel VTx or AMD-V	-Dual core server -Intel VTx or AMD-V	-Dual core server -Intel VTx or AMD-V
Memory ⁴	2 GB	2 GB	2 GB
Hard drive	20 GB	20 GB	20 GB
Network interface	Hypervisor supported network interface card		
Minimum requirements for additional NetScaler VPX VMs⁵			
Processor	-Dedicated CPU core -Intel VTx or AMD-V	-Dedicated CPU core -Intel VTx or AMD-V	-Dedicated CPU core -Intel VTx or AMD-V
Memory	1 GB	1 GB	1 GB
Hard drive	20 GB	20 GB	20 GB

1. Requires 4GB RAM. Max TCP connections with 1GB RAM is 1.2 million
2. Using 3DES. Max concurrent users using RC4 is 1,000
3. Minimum requirements to run the hypervisor and a single NetScaler VPX VM.
4. Recommend minimum of 1 core/1GB RAM for hypervisor and 1 core/1GB RAM per NetScaler VPX VM.
5. Minimum incremental requirements for each additional NetScaler VPX VM.


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About Citrix

Citrix Systems, Inc. (NASDAQ:CTXS) is the leading provider of virtualization, networking and software as a service technologies for more than 230,000 organizations worldwide. Its Citrix Delivery Center, Citrix Cloud Center (C3) and Citrix Online Services product families radically simplify computing for millions of users, delivering applications as an on-demand service to any user, in any location on any device. Citrix customers include the world's largest Internet companies, 99 percent of *Fortune* Global 500 enterprises, and hundreds of thousands of small businesses and prosumers worldwide. Citrix partners with over 10,000 companies worldwide in more than 100 countries. Founded in 1989, annual revenue in 2008 was \$1.6 billion.

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