NetScaler for Telco Clouds

Scale, Secure and Optimize Application Delivery Controller-as-a-Service (ADCaaS)
NetScaler is the leading virtualized Application Delivery Controller (ADC) platform on the market. NetScaler controls the delivery of cloud services and enhances the end-user experience.

### NetScaler Platforms

<table>
<thead>
<tr>
<th>Software ADC</th>
<th>Appliance ADC</th>
<th>Multi-tenant ADC</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPX</td>
<td>MPX</td>
<td>SDX</td>
</tr>
</tbody>
</table>

- **VPX**: Dedicated ADC instances with low to mid-scale capacity and full Layer 7 capabilities.
- **MPX**: Dedicated ADC instances with large-scale capacity and full Layer 7 capabilities.
- **SDX**: Dedicated ADC and ADC instances with varying capacity and application-delivery feature requirements.

- Up to 120 Gbps of capacity in a 2 RU appliance; with TriScale Clustering, aggregate capacity is over 3 Tbps.
- Single binary and configuration across all platforms.
- Operators can reuse configuration files and practices when moving between MPX, VPX and SDX.

### Deliver Across Customer Segments

<table>
<thead>
<tr>
<th>Full L4-L7</th>
<th>Required Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPX</td>
<td>Dedicated ADC</td>
</tr>
<tr>
<td>SDX</td>
<td>Dedicated ADC</td>
</tr>
</tbody>
</table>

- **VPX**: Full L4-L7 with low to mid-scale capacity.
- **SDX**: Full L4-L7 with large-scale capacity.

<table>
<thead>
<tr>
<th>10 Mbps</th>
<th>Required Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPX</td>
<td>SDX</td>
</tr>
<tr>
<td>VPX</td>
<td>SDX</td>
</tr>
</tbody>
</table>

- **VPX**: Shared ADC and ADC instances with low-scale capacity and simple Layer 4 load balancing.
- **MPX**: Dedicated ADC instances with large-scale Layer 4 load balancing capacity.

- **SDX**: Dedicated ADC instances with large-scale Layer 4 load balancing capacity.

- Support small, medium and large enterprises with varying capacity and application-delivery feature requirements.
- Provide both shared and dedicated instances using a common ADC platform.
- Leverage the same software for all ADCs.
- Use a single management framework.
On-Demand Scalability with TriScale

- **Elasticity**
  - Pay-As-You-Grow
  - Scale Up
  - Scale Out

- **Simplicity**
  - Many-In-One SDX
  - Expandability
  - Add-and-Go Clustering

- **Required Performance**
  - 10 Mbps
  - 120 Gbps

- **Required Features**
  - L4 LB
  - Full L4–L7

**NetScaler Platform**

- **SDX**
- **MPX**
- **VPX**

**Multi-tenant ADC**

- **Appliance ADC**
- **Software ADC**

**Requisitional ADC instances**

- Dedicated with low to mid-scale capacity and full Layer 7 capabilities
- Dedicated with large-scale capacity and full Layer 7 capabilities

- Shared with low-scale capacity and simple Layer 4 load balancing

- Dedicated with large-scale Layer 4 load balancing capacity

**Deliver Across Customer Segments**

- IPv4 Client
- IPv6 Client
- Web Server
- NetScaler IPv4 Network
- IPv6 Network

**Traffic Domains**

- NAT64 / DNS64
- NAT46
- 4T
- 6T4 / DNS64

**Manage IPv6 Transitions**

- Re-use IPv4 addresses through Traffic Domains
- Translate IPv6 clients to access IPv4 services
- Provide access to IPv6 services by IPv4 clients

**100% Availability Through L4-L7 Load Balancing Capabilities**

- Application and Database Load Balancing
- Global Server Load Balancing
- Protocol Level Health Checks
- Rule-Based Persistency
- Content Switching

- Scale performance of AAA, databases, DNS, and web servers
- Balance load across data centers for performance and availability
- Ensure high availability of control plane applications, web servers and databases
- Key off SIP, HTTP, RADIUS or DIAMETER expression for persistency
- Send request to same host on different servers based on HTTP, SIP, DIAMETER or Layer 3 data

**Accelerate Performance**

- AppCache
- AppCompress
- TCP Optimization
- Multipath TCP
- SPDY

- Cache static and dynamic web content
- Reduce size of HTTP and HTTPS responses sent to clients
- TCP protocol-level tuning for quicker application transport
- Maintains TCP sessions when moving between WiFi and 3G/4G
- Streamlines web object downloads for non-SPDY server endpoints

**Key off Authentication, HTTP, RADIUS or DIAMETER expression for persistence**

**NetScaler for Telco Clouds**

- Infographic

- citrix.com/netscaler
Secure Applications and Networks

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Application Firewall</td>
<td>Block DDoS, SQL injection, cross-site scripting and buffer overflow threats</td>
</tr>
<tr>
<td>Secure Remote Access</td>
<td>Protect mobile users through SSL VPN</td>
</tr>
<tr>
<td>FIPS and NEBS Certified</td>
<td>Meet criteria for standard security certifications</td>
</tr>
<tr>
<td>Protection for Citrix VDI</td>
<td>Optimize and secure XenApp and XenDesktop infrastructure</td>
</tr>
</tbody>
</table>

Enable Software Defined Networking (SDN)

- NetScaler Control Center (NCC) provides ADC service insertion into highly automated and orchestrated SDN and cloud data centers
  - Offers Northbound APIs and Cloud Adapters for OpenStack and VMware NSX
  - Provides multi-tenant management platform for both cloud providers and tenants
  - Delivers “single-pane” centralized visibility
  - Extensible to support multiple cloud platforms

About Citrix

Citrix (NASDAQ:CTXS) is a leader in virtualization, networking and cloud infrastructure to enable new ways for people to work better. Citrix solutions help IT and service providers to build, manage and secure, virtual and mobile workspaces that seamlessly deliver apps, desktops, data and services to anyone, on any device, over any network or cloud. This year Citrix is celebrating 25 years of innovation, making IT simpler and people more productive with mobile workstyles. With annual revenue in 2013 of $2.9 billion, Citrix solutions are in use at more than 330,000 organizations and by over 100 million people globally. Learn more at www.citrix.com.

Copyright © 2014 Citrix Systems, Inc. All rights reserved. Citrix CloudPlatform, Citrix Ready, CloudPortal Business Manager, CloudPortal Services Manager, XenDesktop, XenApp, XenMobile, XenServer, ShareFile and NetScaler are trademarks of Citrix Systems, Inc. and/or one of its subsidiaries, and may be registered in the U.S. and other countries. Other product and company names mentioned herein may be trademarks of their respective companies.