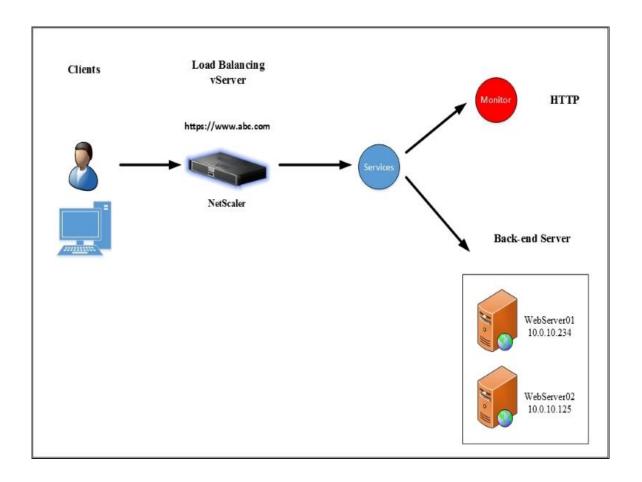
# **TechyEdz Solutions**

Training | Consulting | Developement | Outsourcing



## Citrix NetScaler









## **Citrix ADC (Citrix NetScaler)**

#### Course Overview:

Learn the skills required to implement Citrix ADC Essential components including secure Load Balancing, High Availability, and Citrix ADC Management. At the end of the course, students will be able to configure their Citrix ADC environments to address traffic delivery and management requirements including Load Balancing, Availability, and ADC Operation Management.

#### Course Outline:

#### 1. Getting Started

- Introduction to the NetScaler System
- TriScale
- NetScaler Use Cases
- NetScaler Functionality
- NetScaler Overview
- Product Features
- NetScaler Operating System Overview
- nCore Configuration Architecture
- NetScaler File system
- Deployment Scenarios
- Logging in to the NetScaler System
- NetScaler Licenses

#### 2. Basic Networking

- OSI Networking Model
- NetScaler Architecture Overview
- NetScaler-Owned IP Addresses
- Network Topology
- NetScaler Network Interfaces
- Virtual Local Area Networks (VLANs)
- > IP Routing
- Determining the Source IP Address

- Packet Forwarding
- > Use Source IP Mode
- Client-IP HTTP Header Insertion
- Path MTU Discovery
- Link Aggregation
- Access Control Lists
- Network Address Translation (NAT)

#### 3. NetScaler Platforms

- Architecture and General Concepts
- Hardware Platforms
- > Hardware Components
- MPX Overview
- VPX Overview
- CPX Overview
- SDX Overview
- Identify the unique capabilities and functionality of the NetScaler SDX platform
- > Identify the networking characteristics of the NetScaler SDX platform
- Explain the process of provisioning and administration of NetScaler VPX instances on a NetScaler SDX appliance

### 4. High Availability

- High Availability Functionality
- High Availability Node Configuration
- Propagation and Synchronization
- Failover, Route Monitors, Fail Safe
- Propagation, Synchronization
- > High Availability Management
- Performing an Upgrade
- Troubleshooting
- Upgrading HA pair

#### 5. Load Balancing

- Local Load Balancing concepts
- Naming conventions
- Persistence
- Service Types
- > LB Methods
- Disabling Entities
- Diagnostics/Troubleshooting
- > L4 vs L7 for TCP services
- > UDP ping vs L7
- Monitor attributes
- > Built in L7 monitors
- Monitors from Scripts
- **EAV Monitors**
- ECV Monitors
- DataStream

#### 6. SSL Offload

- SSL and TLS
- SSL Session Process
- SSL Administration
- SSL Offload Overview
- SSL Attacks Overview
- > SSL Troubleshooting
- Cipher Suites
- Certificate Management
- Feature and Benefits
- Offload Performance
- Deployment Scenarios
- Citrix Recommendations for SSL

#### 7. Securing the NetScaler

- NetScaler Communication Ports
- Overview of AAA
- Authentication on the NetScaler
- NetScaler Users
- Command Policies
- Admin Partitions

#### 8. Monitoring, Management, and Troubleshooting

- Monitoring Needs
  - NetScaler Log Management
  - Simple Network Management Protocol
  - AppFlow on the NetScaler System
  - NetScaler Insight Overview
  - NetScaler Command Center Overview
  - Network Traffic Capture using NSTRACE
  - Troubleshooting with Filter Expressions
  - Decoding SSL Traffic with Wireshark
  - Display NetScaler System Information
  - NetScaler Command Line Tools

## 9. AppExpert Classic Policy Engine

- Policies Overview
- Expression Structures
- Content Filtering
- Content Filtering Actions
- Content Filtering Rules

#### 10. AppExpert Default Policy Engine

Understanding Packet-Processing Flow

- Understanding Policies
- Policy Process Evaluation Flow
- Identifying Default Policy Expressions
- Actions
- Understanding Bind Points
- Understanding Policy Labels
- Pattern Sets
- Typecasting

#### 11. Rewrite, Responder, and URL Transform

- Configuring Rewrite Policies and Actions
- Responder Actions
- Respond with
- Responder Action for Timeouts
- Responder Policies
- Responder HTML Page Imports
- Binding Policies
- > URL Transformation
- URL Transformation Actions
- Binding of URL Transformations

#### 12. Content Switching

- Introduction to Content Switching
- Content Switching Based on Network Characteristics
- Content-Switching Virtual Servers and Load-Balancing Virtual Servers
- Configuring Content-Switching Virtual Servers
- Configure a Load-Balancing Setup for Content Switching
- Content-Switching Policies
- Content-Switching Rule Precedence With Priority Specified

#### 13. Global Server Load Balancing

DNS overview and records

- GSLB Deployment Methods
- GSLB Concepts
- GSLB Entities
- GSLB DNS Methods
- Metric Exchange Protocol
- Viewing and Configuring GSLB with the Visualizer
- GSLB Persistence

#### 14. Optimizing Traffic

- > Introduction to Compression
- Frontend Optimization
- Surge Queue
- > TCP Optimization
- > HTTP Optimization

#### 15. Clustering (Optional)

- How Clustering Works
- Cluster Synchronization
- Cluster Communication Interfaces
- Striped and Spotted IP Addresses
- Traffic Distribution

#### Prerequisites:

- Citrix XenApp & XenDesktop
- Networking Basics
- > VMware vSphere

#### Who Should Attend:

- ➤ IT Professionals working with Citrix ADC, with little or no previous ADC experience.
- ➤ Potential students include administrators, engineers, and architects interested in learning how to deploy or manage Citrix ADC.

Number of Hours: 40hrs

#### Key Features:

- One to One Training
- Online Training
- > Fastrack & Normal Track
- ➤ Resume Modification
- ➤ Mock Interviews
- Video Tutorials
- Materials
- > Real Time Projects
- ➤ Virtual Live Experience
- Preparing for Certification