

# CNS-207: Implementing Citrix NetScaler 11 for App and Desktop Solutions



## Overview

The objective of this course is to provide the foundational concepts and teach the skills necessary to implement, configure, secure and monitor a Citrix NetScaler system with NetScaler Gateway in a desktop virtualization environment.

This course has been updated based on the latest release of the NetScaler product (NetScaler version 11). As a part of this update, the content has been more heavily focused on the NetScaler Gateway functionality than ever before, and covers significant features introduced in NetScaler version 11.

This course is designed specifically for students who have limited or no previous NetScaler experience. Students will have access to hands-on exercises within a virtual lab environment. This course is based on the Citrix NetScaler 11 product, but the skills and fundamental concepts learned are common to earlier product versions.

## Key Skills

Students can expect to learn about the following topics in this course:

- High Availability and Load Balancing
- AppExpert Classic Policy Engine
- Authentication and Authorization
- Access Policies
- End User Access and Experience
- Integrating NetScaler Gateway with XenApp and XenDesktop
- Integrating NetScaler Gateway with other resources (Unified Gateway)
- Remote Desktop Proxy
- Gateway with WebFront
- Multi-tenancy
- Portal Page Customization
- Monitoring and Management
- Troubleshooting

## Audience

This course is designed for students who have limited or no previous NetScaler experience and are interested in learning how to integrate NetScaler Gateway with Citrix XenDesktop or Citrix XenApp.

## Instructional Method

This course is offered in instructor-led (ILT) and virtual instructor-led (vILT) formats, including application of concepts through hands-on exercises in a live lab environment.

## Course Length

5 days

## Preparatory Recommendations

Before taking this course, Citrix recommends that students have the following:

- Understanding of basic networking concepts (routing, switching, VLAN, firewall functionality)
- Familiarity with application delivery and cloud networking
- Experience with Citrix virtualization technologies, such as XenDesktop and XenApp
- Familiarity with Microsoft Windows Server
- Experience with Microsoft SQL Server or enterprise database servers
- Experience with Active Directory and Group Policy
- Basic understanding of Microsoft Remote Desktop Services
- Basic understanding of Windows Server networking concepts, such as DNS, IIS®, and load balancing
- Exposure to basic system administration concepts, including logging, software upgrade procedures, and high availability operations
- Familiarity with server monitoring tools
- Basic understanding of VPN concepts, including SSL encryption and certificates

## Registration

For more information and to register for this course, please go to <http://training.citrix.com>.

## Topic Outline

### Module 1: Getting Started

- NetScaler Functionality
- Hardware Platforms
- nCore Configuration Architecture
- Deployment Scenarios
- NetScaler Gateway Overview

### Module 2: Basic Networking

- NetScaler Architecture Overview
- NetScaler IP Addresses
- Network Deployment Topologies
- NetScaler Gateway Deployment Overview
- VLAN Options
- Routing Options

### Module 3: High Availability

- High-Availability Functionality

- Propagation and Synchronization
- High-Availability Management
- Upgrading a High-Availability Pair
- Common High-Availability Issues

#### **Module 4: Integrating NS Gateway with other resources using Unified Gateway**

- New Features in NetScaler Gateway 11
- NetScaler Unified Gateway Overview
- NetScaler Unified Gateway Reference Architecture Review
- Unified Gateway Key Features
- NetScaler Gateway Topologies

#### **Module 5: Basic Load Balancing**

- Load-Balancing Basics
- Traffic Types
- Supported Protocols
- Extended Content Verification (ECV) Monitoring
- Load-Balancing Methods
- The Load-Balancing Visualizer

#### **Module 6: NetScaler Security and SSL**

- SSL Overview
- SSL Administration
- Certificate Types
- Configuring SSL Offload
- SSL Termination Points
- SSL Troubleshooting

#### **Module 7: Authentication and Authorization**

- System and AAA Users Groups
- External Authentication
- Authentication Actions and Policies
- Authentication Configuration
- Supported Authentication Types
- AAA Troubleshooting

#### **Module 8: Access Policies**

- Endpoint Analysis
- Policy, Profiles, and Expressions
- Pre-Authentication Policies and Profiles
- Post-Authentication Policies
- Endpoint Analysis Troubleshooting

#### **Module 9: End-User Access and Experience**

- Connection Methods
- Session Policies Settings
- Timeout Settings
- RDP Proxy
- Clientless Access

#### **Module 10: Integrating NetScaler with XenApp and XenDesktop**

- Required Firewall Rules
- Web Interface or StoreFront Integration with NetScaler Gateway
- WebFront Overview and Configuration
- Session Policies
- NetScaler Gateway with XenMobile Integration Overview

#### **Module 11: AppExpert (Default and Classic Syntax)**

- Default vs. Classic Policies Overview
- Understanding Packet-Processing Flow
- Policy Process Evaluation Flow
- Simple, Compound, and Custom Expression Types
- Available Operators
- Rewrite and Responder Policies

#### **Module 12: Multi-tenancy and NetScaler SDX**

- Multi Tenancy Concepts
- NetScaler Tenancy Options
- Admin Partitions
- Server Name Indication (SNI)
- SDX Architecture
- SDX Management

#### **Module 13: Monitoring and Management**

- Monitoring Methods
- AppFlow
- EdgeSight Monitoring
- Insight Center Overview
- Command Center
- NetScaler Dashboard Components