

CNS-200-1I Basic Administration for Citrix NetScaler 9.0

This course covers the initial configuration and administration of Citrix NetScaler 9.0. Learners gain an understanding of NetScaler features such as load balancing, SSL offload, classic and advanced expressions, rate limiting and AppExpert templates. Interactive instructor-led discussion and hands-on labs and exercises guide learners through administrator tasks preparing them to manage Citrix NetScaler 9.0 deployments. In addition, this course has been updated to include an overview of NetScaler 9.1 software and hardware updates and NetScaler VPX!

Audience

This course is intended for system administrators or network operations personnel, who configure and administer Citrix NetScaler products.

Preparatory Recommendations

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

- Intermediate knowledge of TCP/IP and HTTP protocols and an understanding of the OSI model
- Experience with network devices such as routers and switches, various networking protocols and aspects of application and site architecture such as DMZ and VLANS
- Moderate exposure to UNIX or Linux
- Exposure to basic systems administration concepts, including logging, software upgrade procedures and high availability operations
- Familiarity with web server software such as Apache, IIS or WebSphere
- Basic knowledge of DNS, SSL, and compression concepts
- Understanding of concepts related to server load balancing and content switching
- Knowledge of network security threats and site protection concepts such as firewalls, worms, DDoS attacks

Key Skills

Upon successful completion of this course, learners are able to perform the following:

- Identify deployment considerations and network placement options
- Perform an initial configuration
- Identify NetScaler-owned IP addresses
- Configure virtual local area networks (VLANs)
- Configure reverse network address translation (RNAT)
- Configure access control lists
- Configure high availability
- Configure load balancing
- Configure SSL offload
- Configure NetScaler features using classic policy expressions, including:
 - Content filtering
 - Content switching
 - Compression
- Perform auditing and logging
- Perform monitoring
- Configure global server load balancing (GSLB)
- Configure NetScaler features using advanced policy expressions, including:
 - Rewrite
 - Responder
 - URL transformation
 - Integrated caching
- Configure rate limiting
- Configure AppExpert templates

- Troubleshoot NetScaler configurations

Instructional Method

This course is an instructor-led training course with classroom discussion, demonstrations and the practical application of concepts through hands-on exercises.

Course Length

5 days

Certification Preparation

This course prepares students for exam 1Y0-A11 Basic Administration for Citrix NetScaler 9.0.

Registration

For more information and to register for this course, please go to www.CitrixEducation.com.

Topic Outline

Provided is the topic outline for CNS-200-11.

- Introducing and Deploying Citrix NetScaler
 - NetScaler Request Switching
 - Product Features
 - Identifying NetScaler 9.0 Enhancements
 - Product Editions
 - Hardware Platforms
 - Hardware Components
 - Deployment Scenarios
 - Identifying Deployment Considerations
 - Identifying Network Placement Options
- Performing an Initial Configuration
 - Management Connectivity
 - NetScaler Administrative Tools
 - Using the Configuration Utility
 - Using the Command-Line Interface
 - Monitoring the NetScaler System
 - Managing System Functions Through FreeBSD
 - Using Third-Party Tools
 - NetScaler System Installation
 - Logging in to the NetScaler System
 - Setting up the NetScaler System
 - Changing the Password
 - Performing Initial Configuration
 - Saving the Configuration
 - Enabling Network Time Protocol
 - NetScaler Management
 - Performing an Upgrade
 - Managing Licensing
 - Enabling NetScaler Features
 - Managing Role-Based Administration
 - NetScaler System Communication
 - Security Management
 - Securing Internal Services
 - Configuring Secure System Access
- Networking
 - Introduction to NetScaler Networking
 - NetScaler-Owned IP Addresses
 - Routing Traffic Using Layer 3 Mode
 - Switching Traffic Using Layer 2 Mode
 - Sending a Client IP Address to Servers

- Virtual Local Area Networks
 - Network Address Translation
 - Configuring Reverse Network Address Translation
 - Access Control Lists
 - Configuring Access Control Lists
 - Link Aggregation Control Protocol
- Configuring High Availability
 - Introduction to High Availability
 - High Availability Node Configuration
 - Configuring Nodes
 - Verifying High Availability Status
 - Propagation and Synchronization
 - Performing a Forced Failover
 - High Availability Management
 - Failover Interface Set
- Configuring Load Balancing
 - Load-Balancing Topology
 - Entity Management
 - Creating Servers
 - Creating Services
 - Creating Virtual Servers
 - Creating Entity Templates
 - Service Monitoring
 - Identifying Monitor Parameters
 - Performing HTTP Monitoring
 - Load-Balancing Methods
 - Service Weights
 - Entity Binding
 - Session Persistence
 - Other Load-Balancing Options
 - Other Load-Balancing Methods
 - Load Balancing Visualizer
- Monitoring and Maintaining Load Balancing
 - Load-Balancing Traffic Types
 - Extended Content Verification (ECV) Monitors
 - Performing HTTP-INLINE Monitoring
 - Setting Monitor Thresholds
 - Token and Hashing-Based Load Balancing
 - Configuring Load Monitors
 - Service and Virtual Server Management
 - Troubleshooting Load-Balancing
- Configuring SSL Offload
 - SSL and Digital Certificates
 - SSL Offload
 - Server Certificates
 - SSL Deployment Decisions
 - Deploying Front-End SSL with Back-End HTTP
 - Deploying Front-End SSL with Back-End SSL
 - Deploying Front-End SSL_TCP with Back-End TCP
 - Deploying SSL_BRIDGE
 - SSL Administration
 - Generating a Key
 - Generating a Certificate Signing Request
 - Generating a Certificate for Testing
 - Creating a Certkey
 - Binding a Certkey
 - Advanced SSL Settings
- Configuring Content Filtering Using Classic Policies
 - Policy Basics

- HTTP and HTTPS Traffic
- Expression Structures
- Qualifiers, Operators and Expression Values
- Identifying Simple Expressions
- Identifying Compound Expressions
- Introduction to Content Filtering
- Filter Actions
- Configuring Content Filtering
- Binding Filters
- **Configuring Content Switching**
 - Introduction to Content Switching
 - Content-Switching Virtual Servers
 - Content-Switching Policies
 - Binding Content-Switching Policies
- **Configuring Compression**
 - Introduction to Compression
 - Compression Parameters
 - Compression Policies
 - Configuring Compression Policies
- **Auditing and Logging**
 - Syslog and Nslog Auditing
 - Configuring Audit Servers
 - Configuring Global Auditing Parameters
 - Configuring Auditing Policies
 - Binding Auditing Policies
 - Viewing Audit Messages
 - NetScaler Log Management
- **Monitoring**
 - Simple Network Management Protocol
 - SNMPv1 and SNMPv2
 - Configuring SNMP Managers
 - Configuring the MIB System Variables
 - Configuring SNMP Community Strings
 - Configuring SNMP Traps
 - Configuring SNMP Alarms
 - SNMPv3
 - Dashboard
 - Identifying the Dashboard Components
 - Navigating the Dashboard
 - Customizing the Built-in Comparative Charts Pane
 - Customizing the Group Monitoring Pane
 - Reporting Tool
 - Monitoring Tool
- **Configuring Global Server Load Balancing**
 - GSLB Concepts
 - Defining Metric Exchange Protocol Communication
 - Introducing GSLB Persistence
 - Introducing GSLB Site Affinity
 - DNS Concepts
 - Configuring DNS Virtual Servers
 - Configuring Service Type DNS
 - Introducing Authoritative DNS Service
 - Introducing GSLB DNS Response Options
 - GSLB Configurations
 - Implementing Traditional GSLB
 - Implementing GSLB Failover for Disaster Recovery
 - Implementing Proximity-Based GSLB
 - Configuring GSLB (Command-Line Interface)
 - Configuring GSLB Services (Configuration Utility)

- Configuring ADNS
 - Synchronizing GSLB Configurations Automatically
- Using Advanced Policies
 - NetScaler Policy Overview
 - Understanding Packet Processing Flow
 - Understanding Policies
 - Identifying Advanced Policy Expressions
 - Advanced Policy Expression Syntax
 - Actions
 - Policy Bindings
 - Understanding Bind Points
 - Using the Policy Manager
 - Understanding Policy Labels
 - Using Pattern Sets
 - Typecasting
- Configuring Rewrite, Responder and URL Transformation
 - Rewrite, Responder and URL Transformation Overview
 - Identifying Packet Processing Flow
 - Basic Configurations: Policies and Actions
 - Configuring Rewrite Actions
 - Configuring Rewrite Policies
 - Understanding Responder Actions
 - Configuring Responder Policies
 - Configuring URL Transformation
 - Troubleshooting URL Transformation
- Configuring Integrated Caching
 - Integrated Caching Architecture
 - Static and Dynamic Content
 - Request and Response Process Flow
 - Cache Policies
 - Cache Policy Evaluation
 - Making Graceful Configuration Changes
 - Cache Content Groups
 - Controlling Content Aging
 - Content Group Settings
 - Enabling FlashCache
 - Setting Global Attributes
 - Managing Caching
 - Caching Examples
- Configuring Rate Limiting
 - Rate Control
 - Identifying Rate-Limiting Components
 - Configuring Rate Control
 - Rate Control Policy Scenarios
- Configuring AppExpert Templates
 - AppExpert Templates
 - Using the Application Interface
 - Planning for Applications
 - AppExpert Template Deployment
 - Viewing Application Template Statistics
- Troubleshooting the NetScaler
 - NetScaler System Overview
 - Logged Information
 - Accessing Logged Information
 - Network Traffic Capture
 - Statistics

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