
Basic Administration for Citrix NetScaler 9.0

Duration: 5 **Course Code: CNS200-11**

Overview:

The 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.

Target Audience:

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

Objectives:

- 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:
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 - o Rewrite
 - o Responder
 - o URL transformation
 - o Integrated caching
 - Configure rate limiting
 - • Configure AppExpert templates
 - • Troubleshoot NetScaler configurations

Prerequisites:

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

Testing and Certification

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

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
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Content:

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

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

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

- 4 • Using Advanced Policies

NetScaler Policy Overview

Understanding Packet Processing Flow

Understanding Policies

Identifying Advanced Policy Expressions

Advanced Policy Expression Syntax

Actions

Managing Licensing	Policy Basics	Policy Bindings
Enabling NetScaler Features	HTTP and HTTPS Traffic	Understanding Bind Points
Managing Role-Based Administration	Expression Structures	Using the Policy Manager
NetScaler System Communication	■ 3	Understanding Policy Labels
Security Management	Qualifiers, Operators and Expression Values	Using Pattern Sets
Securing Internal Services	Identifying Simple Expressions	Typecasting
Configuring Secure System Access	Identifying Compound Expressions	■ • Configuring Rewrite, Responder and URL Transformation
■ • Networking	Introduction to Content Filtering	Rewrite, Responder and URL Transformation Overview
Introduction to NetScaler Networking	Filter Actions	Identifying Packet Processing Flow
NetScaler-Owned IP Addresses	Configuring Content Filtering	Basic Configurations: Policies and Actions
Routing Traffic Using Layer 3 Mode	Binding Filters	Configuring Rewrite Actions
Switching Traffic Using Layer 2 Mode	■ • Configuring Content Switching	Configuring Rewrite Policies
Sending a Client IP Address to Servers	Introduction to Content Switching	Understanding Responder Actions
Virtual Local Area Networks	Content-Switching Virtual Servers	Configuring Responder Policies
Network Address Translation	Content-Switching Policies	Configuring URL Transformation
■ 2	Binding Content-Switching Policies	Troubleshooting URL Transformation
Configuring Reverse Network Address Translation	■ • Configuring Compression	■ • Configuring Integrated Caching
Access Control Lists	Introduction to Compression	Integrated Caching Architecture
Configuring Access Control Lists	Compression Parameters	Static and Dynamic Content
Link Aggregation Control Protocol	Compression Policies	Request and Response Process Flow
■ Configuring High Availability	Configuring Compression Policies	Cache Policies
Introduction to High Availability	■ • Auditing and Logging	Cache Policy Evaluation
High Availability Node Configuration	Syslog and Nslog Auditing	Making Graceful Configuration Changes
Configuring Nodes	Configuring Audit Servers	
	Configuring Global Auditing Parameters	

Verifying High Availability Status

Propagation and Synchronization

Performing a Forced Failover

High Availability Management

Failover Interface Set

■ • Configuring Load alancing

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

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

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

Load-Balancing Traffic Types	Defining Metric Exchange Protocol Communication
Extended Content Verification (ECV) Monitors	Introducing GSLB Persistence
Performing HTTP-INLINE Monitoring	

Additional Information:

Enables hands-on practice on key product features, including high availability, load balancing, SSL offload, content filtering, content switching and compression

Includes select exercises from CNS-200-11 Basic Administration for Citrix NetScaler 9.0. Provides open practice environment in which any aspect of the technology can be configured and exercised

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 01924 377489

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