



CITRIX[®]



Ready[®]
INFORMATICA

CNS-205: Citrix NetScaler 11 Essentials and Networking

Ready Informatica srl

**Per contattare il nostro servizio informazioni:
039 921 21 21**

Per consultare il calendario corsi:
<http://www.ready.it/corsi/calendario-corsi.html>

The objective of the Citrix NetScaler 11 Essentials and Networking course is to provide the foundational concepts and skills necessary to implement, configure, secure, monitor, optimize, and troubleshoot a Citrix NetScaler system within a networking framework. 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. An optional module on NetScaler SDX appliances is included with reinforcement simulation exercises.

Audience

This course is designed for Network Administrators/Engineers, Citrix Administrators, Operations Engineers, Systems Administrators/Engineers and Cloud Administrators/Engineers who are new to the NetScaler platform. Those interested in also learning about integrating NetScaler Gateway should consider taking CNS-207 Implementing Citrix NetScaler 10.5 for App and Desktop Solutions instead.

Instructional Method

This course is offered in instructor-led (ILT) format with demonstrations and application of concepts through hands-on exercises in a live lab environment.

Course Length

5 days

Key Skills

Upon successful completion of this course, learners will be able to:

- Identify the functionality and capabilities of the NetScaler
- Explain basic NetScaler network architecture
- Obtain, install, and manage NetScaler licenses
- Explain how SSL is used to secure the NetScaler
- Optimize the NetScaler system for traffic handling and management
- Customize the NetScaler system for traffic flow and content-specific requirements
- Demonstrate monitoring and reporting through native NetScaler logging tools
- Employ recommended tools and techniques to troubleshoot common NetScaler network and connectivity issues
- Implement NetScaler TriScale technology, including clustering
- Configure advanced load balancing and GSLB on the NetScaler system
- Identify the capabilities, functionality and networking characteristics of the NetScaler SDX platform
- Explain the process of provisioning and administering NetScaler VPX instances on a NetScaler SDX appliance



CITRIX[®]



Ready[®]
INFORMATICA



Descrizione del corso

Preparatory Recommendations

Citrix recommends students prepare for this course by gaining a basic understanding of the following concepts and technologies:

- Windows and Linux Server administration
- TCP/IP, HTTP protocols and the OSI model
- Server load balancing and content switching concepts
- Web server software (e.g. Apache, IIS)
- DNS, SSL and compression concepts
- Network security threats and site protection concepts (e.g. DDoS attack, firewall)

Topic Outline

- Getting Started
 - Introduction to the NetScaler System
 - NetScaler Functionality
 - NetScaler Overview
 - Product Features
 - NetScaler Operating System Overview
 - Hardware Platforms
 - Hardware Components
 - nCore Configuration Architecture
 - Deployment Scenarios
 - Logging in to the NetScaler System
 - NetScaler Licenses
 - Performing an Upgrade
- 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
 - Network Address Translation (NAT)
- High Availability
 - High Availability Functionality
 - High Availability Node Configuration
 - Propagation and Synchronization
 - High Availability Management
- Securing NetScaler
- NetScaler System Communication
 - Access Control Lists
 - Access Control List Configuration
 - Detailed Access Control List Configuration
 - Users, Groups, and Command Policies
 - External Authentication for System Users
 - Authentication, Authorization, and Auditing (AAA) Issues
 - Authentication Troubleshooting



CITRIX[®]



Ready[®]
INFORMATICA



Descrizione del corso

- Basic Load Balancing
 - Load Balancing Basics
 - Entity Management
 - Server Creation
 - Services Configuration Overview
 - Virtual Server Creation
 - Binding Virtual Servers to Services or a Service Group
 - Traffic Types
 - Service Monitoring
 - Persistence and Persistence Connections
 - Load-Balancing Configuration Protection
 - Advanced Services Options
 - Maintaining of Client Connection for Multiple Client Requests
 - Specified Source IP Addresses for Back-end Communication Using Network Profiles
 - Disabling Services
 - Graceful Shutdown of Services
 - Removing Services
 - Configuration Verification
 - The Load-Balancing Visualizer
 - Configuring Load Balancing for DataStream
 - Link Load Balancing
 - Configuration of Sessionless Load-Balancing Virtual Servers
 - Load-Balancing Issues
 - Use of Telnet or Monitors to Check Ports
- SSL Offload
 - SSL
 - SSL Session Process
 - Feature and Benefits
 - Offload Performance
 - Digital Certificates
 - SSL Administration
 - SSL Offload Overview
 - Deployment Scenarios
 - Citrix Recommendations for SSL
 - SSL Renegotiation Attack
 - SSL Troubleshooting
 - Intermediate Certificate Not Linked
- Global Server Load Balancing
 - GSLB Deployment Methods
 - GSLB Concepts
 - GSLB Entities
 - GSLB DNS Methods
 - Metric Exchange Protocol
 - Implementing GSLB
 - Viewing and Configuring GSLB with the Visualizer
 - Configuring Site-to-Site Communication
 - RPC Node Password
 - Encryption of Site Metrics Exchange
 - Source IP Address for an RPC Node
 - GSLB Site Communication Example
 - Customizing the GSLB Configuration
 - Changing the GSLB Method
 - GSLB Persistence
 - Using Dynamic Weights for Services



CITRIX[®]



Ready[®]
INFORMATICA



Descrizione del corso

- o Monitoring GSLB Services
- o Binding Monitors to a GSLB Service
- o Monitoring GSLB Sites
- o Protecting the GSLB Setup Against Failure
- o Responding with an Empty Address Record When DOWN
- o Backup IP Address Configuration for a GSLB Domain
- o Implementing GSLB Failover for Disaster Recovery
- AppExpert Classic Policy Engine
 - o Policies Overview
 - o Expression Structures
 - o Content Filtering
 - o Content Filtering Actions
 - o Content Filtering Rules
- AppExpert Default Policy Engine
 - o Understanding Packet-Processing Flow
 - o Understanding Policies
 - o Policy Process Evaluation Flow
 - o Identifying Default Policy Expressions
 - o Actions
 - o Understanding Bind Points
 - o Understanding Policy Labels
 - o Pattern Sets
 - o Typecasting
 - o Rewrite, Responder, and URL Transformation
- Rewrite, Responder, and URL Transform
 - o Configuring Rewrite Policies and Actions
 - o Responder Actions
 - o Respondwith
 - o Responder Action for Timeouts
 - o Responder Policies
 - o Responder HTML Page Imports
 - o Binding Policies
 - o URL Transformation
 - o URL Transformation Actions
 - o Binding of URL Transformations
- Content Switching
 - o Introduction to Content Switching
 - o Understanding Content Switching
 - o Content Switching Based on Network Characteristics
 - o Content-Switching Virtual Servers and Load-Balancing Virtual Servers
 - o Configuring Content-Switching Virtual Servers
 - o Configure a Load-Balancing Setup for Content Switching
 - o Content-Switching Policies
 - o Binding Content-Switching Policies
 - o Content-Switching Rule Precedence Without Priority Specified
 - o Content-Switching Rule Precedence With Priority Specified
 - o Configuring Content Switching for DataStream
- Optimizing Traffic
 - o Introduction to Compression
 - o Action Analytics
 - o AppExpert Templates
 - o Terminology
 - o Deploying NetScaler for an Application
 - o Application Example



CITRIX[®]



Ready[®]
INFORMATICA

- o AppExpert Template Deployment
- Clustering
 - o How Clustering Works
 - o Cluster Synchronization
 - o Cluster Connections
 - o Cluster Communication Interfaces
 - o Striped and Spotted IP Addresses
 - o Traffic Distribution
 - o Cluster and Node States
 - o NetScaler Cluster Set up
 - o NetScaler Cluster Traffic Distribution Mechanisms
 - o To Configure a Cluster Link Aggregation Group Statically
 - o Dynamic Configuration for a Cluster Link Aggregation Group
 - o NetScaler Cluster Management
 - o NetScaler Cluster Troubleshooting
- Monitoring and Management
 - o Monitoring Needs
 - o NetScaler Log Management
 - o Simple Network Management Protocol
 - o To Configure SNMPv1 and SNMPv2
 - o AppFlow on the NetScaler System
 - o AppFlow Collectors and EdgeSight Monitoring
 - o AppFlow Actions and EdgeSight Monitoring Responder Policies
 - o Third-Party Collectors
 - o Network Traffic Capture using NSTRACE
 - o Troubleshooting with Filter Expressions
 - o Decoding SSL Traffic with Wireshark
 - o Display NetScaler System Information
- Addendum: Citrix NetScaler 10.1 Essentials for SDX Appliances
 - o Identify the unique capabilities and functionality of the NetScaler SDX platform
 - o Identify the networking characteristics of the NetScaler SDX platform
 - o Explain the process of provisioning and administration of NetScaler VPX instances on a NetScaler SDX appliance