5 Days

CNS-220: Citrix NetScaler Essentials and Traffic Management

The CNS-220 Training course specially designed for IT professionals builds their NetScaler knowledge. It teaches about the NetScaler essentials like the architecture, platforms, licensing, and functionality. Moreover, it emphasizes on traffic management, optimization, global server load balancing and content switching.

The candidate learns about key NetScaler capabilities like availability, security, performance, and explores load balancing, monitoring, and SSL offload.

Course Objective:

The Certified professionals are able to learn about understand

- Basic NetScaler network architecture
- Capabilities and functionality of NetScaler
- Obtain, install and manage the NetScaler license
- Secure the NetScaler with SSL
- Optimize and customize the NetScaler system for traffic flow, handling, and management
- Optimize and customize the NetScaler system as per content-specific requirements
- Troubleshoot NetScaler network and connectivity issues
- Implementation of NetScaler TriScale technology and Clustering
- Configuration of load balancing [advanced] and GSLB on the NetScaler system
- Characteristics and functionality of NetScaler SDX platform

Course Details

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Course Outline

1. Introduction to NetScaler System

- Overview, Features, Functionality, and Use Cases
- Logging into the NetScaler System
- Operating System, File System
- Deployment Scenarios
- nCore Configuration Architecture
- NetScaler Licenses

2. Basic Networking

- OSI Networking Model
- NetScaler Architecture Overview, Network Interfaces
- Virtual Local Area Networks [VLANs]
- IP Routing & determining source of IP Address
- Packet Forwarding
- Use Source IP Mode, Client-IP HTTP Header Insertion
- Link Aggregation, Access Control Lists
- Network Address Translation[NAT]

3. NetScaler Platforms

- General Concepts and Architecture

- Hardware Components and Platforms
- MPX, CPX, VPX, and SDX overview
- Networking characteristics, Capabilities, and functionality
- Provisioning and administration of NetScaler VPX instances on a NetScaler SDX appliance

4. High Availability

- High Availability Functionality, Node Configuration, and Management
- Propagation and Synchronization
- Failover, Route monitors, and fail safe
- Performing an upgrade
- Troubleshooting

5. Load Balancing

- Understanding Local load balancing
- Naming conventions
- Persistence
- Service Types
- Disabling entities
- LB Methods
- Diagnostics and Troubleshooting
- Monitor Attributes
- EAV, ECV Monitors, Built-in L7 Monitors
- DataStream

6. SSL Offload

- SSL and TLS
- SSL session process, administration, offload and attacks overview
- SSL Troubleshooting
- Feature and Benefits
- Cipher Suites
- Certificate Management
- Deployment Scenarios
- Citrix Recommendations for SSL

7. NetScaler Security

- NetScaler Communication Ports
- Authentication on the NetScaler
- Overview of AAA
- Admin partitions and Command policies
- NetScaler Users

8. Monitoring and Troubleshooting

- Overview of NetScaler Insight, Command Center
- Log Management
- Simple Network Management Protocol
- AppFlow on the NetScaler System
- Network Traffic Capture using NSTRACE
- Decoding SSL Traffic with Wireshark
- Display NetScaler System Information
- NetScaler Command Line Tools

9. AppExpert Classic Policy Engine

- Overview of the Policies
- Expression Structures
- Filtering of Content, Actions, and Rules

10. AppExpert Default Policy Engine

- Understanding Packet-process Flow
- Concept of policies, Policy process evaluation
- Identifying Default Policy Expressions
- Understanding Bind points, policy labels

- Pattern Sets, Typecasting, Actions

11. Rewrite, Responder, and URL Transform

- Configuration of Rewrite Policies and Actions
- Responder actions, Timeouts, Policies, and HTML Page Imports
- Binding policies and binding of URL Transformations
- URL Transformation and Transformation Actions

12. Content Switching

- Introduction to Content Switching
- Network characteristics based content switching
- Configuration of Content-Switching Virtual Servers
- Configuration of Load-Balancing Setup for Content Switching
- Content Switching, Virtual Servers, and Load-Balancing Virtual Servers
- Content-Switching Policies and Rule Precedence

13. Optimization

- Introduction to Caching
- Compression
- Frontend Optimization

14. Global Server Load Balancing

- DNS Overview and Records
- GSLB concepts, Entities, DNS methods and Deployment Methods
- Metric Exchange Protocol
- View and Configure GSLB with the Visualizer
- GSLB Persistence

15. Clustering (Optional)

- Working of Cluster
- Cluster synchronization and communication interfaces
- Cluster and Node States
- NetScaler Cluster Setup, Management, and Troubleshooting
- Striped and Spotted IP Addresses
- Traffic Distribution
- Dynamic Configuration for a Cluster Link Aggregation Group

Who Should Attend

Individuals able to deploy or manage NetScaler environments. Prior knowledge or experience on NetScaler is not mandatory.

Pre Requisite

- Basic Networking Experience
- Familiarity with DNS, SSL, Compression concepts, and web server software
- Knowledge of content switching concepts and server load balancing
- Knowledge of site protection concepts and network security threats
- Experience in using OSI model, HTTP protocols, and TCP/IP

464, Udyog Vihar Phase

Date - Apr 20, 2024

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