

CNS-301 Citrix NetScaler 10 Advanced Implementation

This course provides the foundation to manage, configure and monitor advanced features and components of Citrix NetScaler 10. Interactive discussion and hands-on labs guide learners through advanced administration tasks such as troubleshooting, configuring application security with Citrix Application Firewall, tuning the NetScaler for high-traffic loads, configuring AAA for system management, and configuring advanced policies using service callouts. Advanced monitoring and management tasks such as configuring and implementing NetScaler Insight Center, Command Center, and NetScaler Web Logging are also covered. Prior NetScaler knowledge is strongly recommended. In order to successfully complete this course, learners will have access to hands-on exercises within a virtual lab environment.

This course is based on the Citrix NetScaler 10.1 product, but the skills and fundamental concepts learned are common to earlier product versions.

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 knowledge and experience:

- Experience configuring NetScaler systems, including an understanding of services, virtual servers, and policies
- Experience with network devices, such as routers and switches, various networking protocols, and aspects of application and site architectures (such as DMZs and VLANs)
- Knowledge of network security threats and site protection concepts such as firewalls, worms, and DDoS attacks
- Understanding of concepts related to monitoring and management including basics of SNMP
- Completion of CNS-205 Citrix NetScaler 10 Essentials and Networking or related experience

Key Skills

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

- Identify common web attacks and vulnerabilities
- Write PERL compatible regular expressions
- Configure Citrix Application Firewall to protect web applications
- Troubleshoot Citrix Application Firewall
- Install and configure Citrix Insight Center to monitor performance
- Install, configure, and use Citrix Command Center to manage NetScaler devices
- Configure and use additional advanced features of NetScaler including NetScaler Web Logging, HTTP callout, and AAA authentication for web applications

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 is not associated with any current Citrix certification program.

Registration

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

Topic Outline

Provided is the topic outline for CNS-301:

- Advanced Troubleshooting
 - Troubleshooting Resources
 - NetScaler System Overview
 - nCore Configuration Architecture
 - Built-In Tools
 - Third-Party Tools
- Introducing Application Firewall
 - Application Attacks
 - The Benefits of Application Firewall
 - Payment Card Industry Data Security Standard
 - Profiles and Policies
- Profiles and Policies
 - Profiles
 - Policies
 - Engine Settings
- Regular Expressions
 - Regular Expressions
 - Forms of Regular Expressions
 - Using Regular Expressions
 - Metacharacters and Literal Characters
 - Metacharacters
 - Escapes
 - Quantifiers
 - Backreferencing
 - Lookaheads
 - Regular Expression Scope
- Attacks and Protections
 - Security Checks
 - HTTPS Web Applications
 - Buffer Overflow Exploits
 - Buffer Overflow Protection
 - Parameter Manipulation
 - Server Misconfiguration
 - Deny URL Protection
 - SQL Injection
 - HTML SQL Injection Protection
 - Command Injection
 - Field Format Protection
 - Cookie Tampering and Poisoning
 - Cookie Consistency Protection
 - Form/Hidden Field Manipulation
 - Form Field Consistency Protection
 - Forceful Browsing
 - Start URLs
 - Backdoors and Misconfigurations
 - URL Closure
 - Identity Theft Attacks
 - Credit Card Protection
 - Protecting Credit Cards
 - Errors Triggering Sensitive Information Leaks
 - Safe Object Protection
- Application Firewall Troubleshooting
 - Application Firewall and Applications
 - Configuration Issues

- Queuing and Connection Tuning
 - HTTP Connections
 - HTTP Connection Management and NetScaler HTTP Behavior
 - TCP Buffering
 - Surge Queue
 - Surge Protection
 - Priority Queuing
 - HTTP Denial-of-Service Protection
 - IP Rate Limiting
- Authentication, Authorization, and Auditing
 - Users, Groups and Command Policies
 - External Authentication for System Users
 - AAA for Traffic Management
 - Configuration
 - Audit Logging
- HTTP Service Callouts
 - HTTP Callouts
 - Configuring HTTP Callouts
 - HTTP Callout Use Cases
- NetScaler Insight Center
- Command Center
 - Command Center Introduction
 - Command Center Clients
 - Server Requirements
 - Port Setting Requirements
 - Command Center Functionality
 - Command Center Administration
 - Command Center Troubleshooting
- NetScaler Web Logging
 - NetScaler Web Logging Introduction
 - NetScaler System Configuration
 - NSWL Client Installation
 - NSWL Client Configuration
 - Troubleshooting Web Logging