

# Citrix NetScaler 12.x Advanced Topics – Security, Management and Optimization

Certification: [CCP-N](#) | Course Length: [5 days](#) | Instructional Method: [Classroom or Virtual with hands-on labs](#)

## Course Overview:

Learn how to configure your NetScaler environment to address application services security requirements with AppFirewall; automate and manage network services for scale-out of application architectures with the Management and Analytics System (MAS); and optimize NetScaler-managed application delivery traffic. This five-day course for experienced NetScaler architects, engineers and administrators will teach you to deploy and manage AppFirewall to protect web applications against different types of attacks. It will also give you a practical understanding of MAS capabilities for centralized management of multiple NetScaler platforms, orchestration of changes, transaction reporting, infrastructure visualization and planning.

## What you'll learn:

- Identify common web attacks and vulnerabilities
- Write PERL compatible regular expressions
- Understand how to operate the adaptive learning engine
- Configure AppFirewall to protect web applications
- Utilize NetScaler Secure Insight to monitor, manage, and report on Application Services security
- Troubleshoot AppFirewall
- Manage multiple NetScaler platforms centrally
- Orchestrate configuration changes
- Report on transactions passing through the NetScaler environment
- Visualize infrastructure and plan expansion

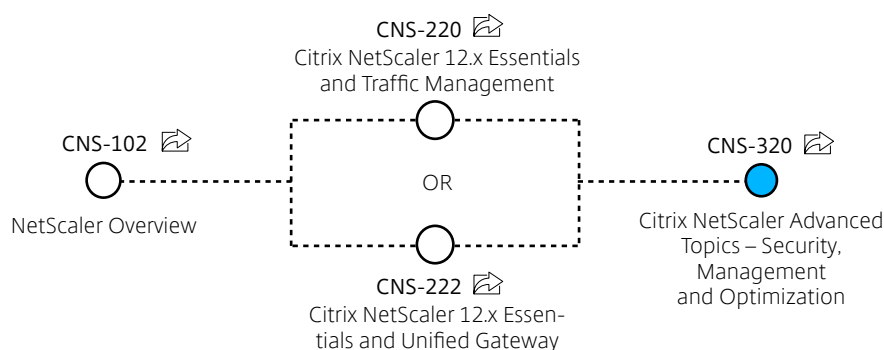
## Is this course for you?

Students interested in learning the skills required to deploy and manage AppFirewall to secure application access in their Citrix NetScaler environment, as well as NetScaler MAS to administer a Citrix NetScaler environment, or optimize NetScaler-managed application delivery traffic. Specifically for administrators, implementers, engineers, and architects.

## Prerequisite Knowledge:

Citrix recommends students prepare for this course by taking the following course/courses: CNS-102 NetScaler Overview, CNS-220 Citrix NetScaler Essentials and Traffic Management, or CNS-222 Citrix NetScaler Essentials and Unified Gateway.

## Learning Path:



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## Module 1: AppFirewall Overview

- AppFirewall solution Security Model
- Common Attacks Overview
- PCI-DSS Compliance

## Module 2: AppFirewall Policies and Profiles

- Profiles
- Policies
- Engine Settings
- AppFirewall Learning

## Module 3: Regular Expressions

- Forms of Regular Expressions
- Using Regular Expressions
- Meta/Literal Characters
- PCRE
- RegEx Tools
- Regular Expression Scope

## Module 4: Attacks and Protections

- Data Flow with AppFirewall
- Security Checks
- AppFirewall Actions
- Adaptive Learning
- Signatures
- Cookie Protection
- Advanced Form Protection Checks
- URL Protections

## Module 5: AppFirewall Monitoring and Troubleshooting

- AppFirewall and Web Applications
- Logging and Reporting
- Customizing Errors
- Troubleshooting
- NetScaler Security Insight

## Module 6: Security and Filtering

- IP Reputation
- Rate Limiting
- AppQoE
- HTTP Callout

## Module 7: NetScaler MAS Introduction

- CAn introduction to MAS
- MAS Deployment and Configuration
- Deploying MAS in High Availability
- MAS Instance Management

## Module 8: Managing and Monitoring MAS

- Inventory Management
- User Management
- Analytics and Automation
- SSL Certificate Management

## Module 9: Managing NetScaler Configuration

- Application Management
- StyleBooks
- Configuration Management

## Module 10: NetScaler Web Logging

- Understanding Web Traffic
- Installing and configuring NetScaler Web Logging
- Troubleshooting NetScaler Web Logging

## Module 11: NetScaler Integrated Caching

- Introduction to Integrated Caching
- Static and Dynamic Content
- Request and Response Process Flow
- Understanding Cache Policies
- Identifying Content Group Settings

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## Module 12: Front-End Optimization

- Improving Content Delivery
- Front-End Optimization Use Cases
- Understanding Minification
- CSS Optimizations

## Module 13: Tuning and Optimizations

- Connections on the NetScaler
- Connection Profiles
- Queuing on the NetScaler
- Connection Tuning Practices