

# Citrix ADC 12.x Advanced Concepts - Security, Management and Optimization

Duration: 5 Days Course Code: CNS-320 Delivery Method: Company Event

#### Overview:

This course is designed for individuals with NetScaler experience who will be deploying or managing Citrix NetScaler Application Firewall (AppFirewall) to secure application access in a Citrix NetScaler environment, as well as NetScaler Management and Analytics System (MAS) to administer a Citrix NetScaler environment or optimize NetScaler-managed application delivery traffic.

You will learn the skills required to deploy and manage AppFirewall including types of web attacks, protections and signatures, the adaptive learning engine, AppFirewall policies and profiles, troubleshooting and additional pertinent NetScaler security features. As well as the skills required for deploying and utilizing the NetScaler Management and Analytics System including the ability to manage multiple NetScaler platforms centrally, orchestrate configuration changes, report on transactions passing through the NetScaler environment, visualize infrastructure, and plan expansions. Implementing features such as Caching, Frontend Optimization, NetScaler Web logging, and TCP/HTTP optimization to optimize traffic managed by a NetScaler environment are also incorporated.

At the end of the course, you will be able to configure NetScaler environments to address application services security requirements with AppFirewall, as well as automate and manage network services for scale-out application architectures with Citrix NetScaler Management and Analytics System and optimize NetScaler managed application delivery traffic.

This course is offered in instructor-led training (ILT)/virtual instructor-led training (vILT) formats with application of concepts through hands-on exercises in a live lab environment.

This course combines CNS-318 (3 days) and CNS - 319 (2 days) and are delivered consecutively.

### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

This course includes an exam.

### **Target Audience:**

Individuals interested in learning the skills required to deploy and manage AppFirewall to secure application access in their Citrix NetScaler environment and NetScaler MAS to administer a Citrix NetScaler environment, or optimize NetScaler-managed application delivery traffic.

#### Objectives:

- After completing this course you should be able to:
- Identify common web attacks and vulnerabilities
- Write PERL compatible regular expressions
- Understand how to utilize 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

# Prerequisites:

Citrix recommends students prepare for this course by taking the following courses:

# **Testing and Certification**

Recommended as preparation for the following exams:

1Y0-340 - Citrix NetScaler Advanced Topics - Security, Management,

CNS-102 - NetScaler Overview

and Optimization

CNS-220 - Citrix NetScaler Essentials and Traffic Management

■ CNS-222 - Citrix NetScaler Essentials and Unified Gateway

- CNS-225 Deploy and Manage Citrix ADC 13.x with Traffic Management
- CNS-227 Deploy and Manage Citrix ADC 13.x with Citrix Gateway

### Content:

Days 1-3

Application Firewall Overview

AppFirewall solution Security Model

Common Attacks Overview

PC I- DSS Compliance

App Firewall Policies and Profiles

Profiles

Policies

Engine Settings

AppFirewall Learning

Regular Expressions

Forms of Regular Expressions

Using Regular Expressions

Meta/Literal Characters

PCRE

RegEx Tools

Regular Expression Scope

Attacks and Protections

Data Flow with AppFirewall

Security Checks

AppFirewall Actions

Adaptive Learning

Signatures

Cookie Protection

Advanced Form Protection Checks

URL Protections

AppFirewall Monitoring and Troubleshooting

AppFirewall and Web Applications

Logging and Reporting

Customizing Errors

Troubleshooting

Netscaler Insight

Security and Filtering

■ IP Reputation

Rate Limiting

AppQoE

HTTP Callout

Days 4-5

**NetScaler MAS Introduction** 

CAn Introdutction to MAS

MAS Deployment and Configuration

Deploying MAS in High Availability

MAS Instance Management

Managing and Monitoring MAS

Inventory Management

User Management

Analytics and Automation

SSL Certificate Management

Managing NetScaler Configuration

Application Management

StyleBooks

Configuration Management

NetScaler Web Logging

Understanding Web Traffic

Installing and configuring NetScaler Web

Troubleshooting NetScaler Web Logging

NetScaler Integrated Caching

Introduction to Integrated Caching

Static and Dynamic Content

Request and Response Process Flow

Understanding Cache Policies

Identifying Content Group Settings

Front-End Optimization

Improving Content Delivery

Front-End Optimization Use Cases

Understanding Minification

CSS Optimizations

**Tuning and Optimizations** 

Connections on the NetScaler

Connection Profiles

Queuing on the NetScaler

Connection Tuning Practices

### Additional Information:

As part of this course, students will receive the following materials: Access to a lab environment for the duration of the course Lab exercise guide Access to final course deliverables including copies of all official materials presented by the instructor with additional notes and references as well as videos with experts throughout Citrix around course topics and lab exercises.

# Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931 <a href="mailto:info@globalknowledge.co.uk">info@globalknowledge.co.uk</a>

www.globalknowledge.com/en-gb/

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK