

# NGINX Web Server Administration

**Duration:** 4 days (8hrs/day)

**Prerequisites:** Basic knowledge of Linux.

**Course Objective:** The Nginx Web Server Administration course provides validation of a professional's ability to manage, configure, and administer the Nginx web server platform, a popular choice for delivering websites and applications due to its high performance, scalability, and flexibility.

**Nginx Version:** Latest

**Lab Requirement:** Koenig DC (CentOS 7)

## Module 1 - Introduction to NGINX and Installation

What is NGINX

What is HTTP and How Does it work?

NGINX vs Apache

Install NGINX

**Lab:** Installing NGINX on Centos 7

## Module 2 – NGINX as a Web Server

Understanding the NGINX Architecture

Understanding the Default NGINX Configuration

MIME Types

Overview of NGINX Modules

**Lab:** Simple Virtual Hosts and Serving Static Content

**Lab:** Handling Error Pages

**Lab:** Access Control with HTTP Basic Auth

**Lab:** Generating Self-Signed Certificates

**Lab:** Configuring the Host for SSL\_TLS\_HTTPS

**Lab:** Redirecting All Traffic to HTTPS

**Lab:** Adding Functionality to NGINX with Dynamic Modules

## **Module 3 - Reverse Proxy**

Introduction to Reverse Proxy

**Lab:** Configuring NGINX as a Reverse Proxy

**Lab:** X-Real-IP

**Lab:** FastCGI Proxy for PHP\_WORDPRESS with fastcgi\_parameter

**Lab:** Simple Caching for Static Content

## **Module 4 - Load Balancing**

Introduction to Load Balancing

**Lab:** Simple Load Balancer

**Lab:** Health Checks in Load Balancer

**Lab:** Understanding Passive Health Check

**Lab:** Parameter Configurations in Passive Health Checks

**Lab:** Active vs Passive Health Checks

**Lab:** Server Weights

## **Module 5 - The Caching Subsystem**

Introduction to HTTP Caching

Understanding the HTTP Cache Control Headers

**Lab:** Cache Control Headers no-store

**Lab:** If-Modified-Since Header

## **Module 6 - Logging**

Understanding of NGINX Logging

**Lab:** Configuring Custom Logging like Storing in Different Locations with Different Levels

## **Module 7 – Advanced NGINX Security**

Introduction to Web Application Firewall

Introduction to NAXSI

Improving SSL Configuration

**Lab:** Installing and Configuring NAXSI

**Lab:** NAXSI- Custom Messages on Rule Matching Patterns

## **Module 8 – Compression**

HTTP Compression

Accept Content Encoding

**Lab:** GZIP Compression for NGINX