

F5 Administering BIG-IP

Learn to deploy, configure and administer F5 BIG-IP systems, from traffic processing and load balancing to high availability.

4 Days

32 HOURS

8

MODULES

64

TOPICS

COURSE OVERVIEW

The F5 Administering BIG-IP course is designed to provide learners with the foundational knowledge and skills required to manage and configure the F5 BIG-IP system. Starting with Module 1: Setting Up the BIG-IP System, students will learn to introduce, deploy, and license the BIG-IP system, as well as configure its essential network components. Throughout the course, they will gain hands-on experience with Traffic processing, NATs and SNATs, Monitoring application health, Profiles, and Persistence to ensure optimized traffic management and load balancing. As they progress, learners will also dive into administering the system with advanced features such as Logging, remote Logging, and high-speed Logging (HSL), which are crucial for maintaining network security and performance. The course emphasizes the importance of high availability configurations using Device Service Clustering (DSC) to ensure system resilience and uptime. By the end of the course, participants will be equipped with the practical expertise to administer a BIG-IP environment effectively, positioning them as valuable assets in maintaining and securing network infrastructures.

Who Should Attend

The F5 Administering BIG-IP course provides IT professionals with the knowledge and skills needed to effectively manage and maintain F5 BIG-IP systems, ensuring optimal performance and reliability. This course is designed for:

Network Administrators: Professionals managing and maintaining network infrastructure

System Engineers: Engineers responsible for system performance and optimization

Network Engineers: Specialists handling network configurations and troubleshooting

Application Developers: Developers integrating BIG-IP functionalities into applications

IT Security Specialists: Experts focused on securing networks and applications

Operations Professionals: Personnel ensuring smooth IT operations

Technical Support Engineers: Engineers providing support for BIG-IP systems

Implementation Consultants: Professionals deploying BIG-IP solutions for clients

Network Architects: Architects designing and implementing network systems

Data Center Managers: Managers overseeing data center operations and infrastructure

NOC Personnel: Network Operations Center staff monitoring and managing network performance

Cloud Infrastructure Engineers: Engineers managing cloud-based network infrastructures

DevOps Professionals: Specialists working on networking and traffic management in DevOps environments

LEARNING OBJECTIVES

- Deploy and license the BIG-IP system and configure its network
- Configure virtual servers, pools and load balancing with TMSH
- Apply NATs and SNATs to translate addresses and solve routing issues
- Configure monitors to track application and pool member health
- Configure profiles to modify traffic behaviour and offload SSL
- Apply persistence methods such as source address affinity
- Configure logging, remote logging and high-speed logging (HSL)
- Configure Device Service Clustering (DSC) for high availability

8 Modules, 64 Topics

01

Setting Up the BIG-IP System

TOPICS

- Introduction to the BIG-IP System
- Initial Setup of the BIG-IP System
- Configuring the Management Interface
- Activating the Software License
- Provisioning Modules and Resources
- Importing a Device Certificate
- Specifying BIG-IP Platform Properties
- Configuring the Network
- Setting Up Network Time Protocol (NTP) Servers
- Configuring Domain Name System (DNS) Settings
- Setting High Availability Options
- Archiving the BIG-IP Configuration
- Utilizing F5 Support Resources and Tools

02

Traffic Processing Building Blocks

TOPICS

- Overview of BIG-IP Traffic Processing Objects
- Configuring Virtual Servers and Pools
- Load Balancing Traffic
- Viewing Module Statistics and Logs
- Using the Traffic Management Shell (TMSH)
- Understanding the TMSH Hierarchical Structure
- Navigating the TMSH Hierarchy
- Managing BIG-IP Configuration States and Files
- Understanding System Configuration States
- Loading and Saving the System Configuration
- Shutting Down and Restarting the BIG-IP System
- Saving and Replicating Configuration Data (UCS and SCF)

03

Using NATs and SNATs

TOPICS

Address Translation on the BIG-IP System · Mapping IP Addresses with NATs · Solving Routing Issues with SNATs · Configuring SNAT Auto Map on a Virtual Server · Monitoring and Mitigating Port Exhaustion

04

Monitoring Application Health

TOPICS

- Overview of Monitors
- Types of Monitors
- Configuring Monitor Intervals and Timeout Settings
- Setting Up Monitors
- Assigning Monitors to Resources
- Managing Pool, Pool Member, and Node Status
- Using the Network Map

05

Modifying Traffic Behavior with Profiles

TOPICS

- Introduction to Profiles
- Understanding Profile Types and Dependencies
- Configuring and Assigning Profiles
- Introduction to SSL Offload and SSL Re-Encryption
- Managing Object States

06

Modifying Traffic Behavior with Persistence

TOPICS

- Understanding the Need for Persistence
- Introduction to Source Address Affinity Persistence
- Managing Object States

07

Administering the BIG-IP System

TOPICS

- Configuring Logging
- Overview of Legacy Remote Logging
- Introduction to High-Speed Logging (HSL)
- Understanding High-Speed Logging Filters
- Configuring HSL Objects and Settings
- Using TCPDUMP on the BIG-IP System
- Leveraging the BIG-IP iHealth System
- Viewing BIG-IP System Statistics
- Defining User Roles and Administrative Partitions
- Leveraging vCMP

08

Configuring High Availability

TOPICS

- Introduction to Device Service Clustering (DSC)
- Preparing to Deploy a DSC Configuration
- Configuring DSC Communication Settings
- Establishing Device Trust
- Setting Up a Sync-Failover Device Group
- Synchronizing Configuration Data
- Exploring Traffic Group Behaviors
- Understanding Failover Managers and Triggers
- Achieving Stateful Failover with Mirroring

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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