

# Administering BIG-IP

**Category:** Networking & Security | **Vendor:** F5

**Duration:** 16.00 hours (2 days)

**13.0 CPD Hours**

**Rating:** ★ 4.6 (5,878 reviews)

## Course Information

**Delivery Format:** Instructor Led - Online

## Course Overview

This course gives network administrators, network operators, and network engineers a functional understanding of the BIG-IP system as it is commonly deployed in an application delivery network. The course introduces students to the BIG-IP system, its configuration objects, how it processes traffic, and how typical administrative and operational activities are performed. The course includes lecture, hands-on labs, interactive demonstrations, and discussions.

## About This Course

- Setting Up the BIG-IP System
- Traffic Processing Building Blocks
- Using NATs and SNATs
- Monitoring Application Health
- Modifying Traffic Behavior with Profiles
- Modifying Traffic Behavior with Persistence
- Administering the BIG-IP System
- Configuring High Availability

## Prerequisites & Entry Requirements

### General Prerequisites:

The following free web-based training courses, although optional, will be very helpful for any student with limited BIG-IP administration and configuration experience. These courses are available at F5 University:

- Getting Started with BIG-IP web-based training
- Getting Started with BIG-IP Local Traffic Manager (LTM) web-based training

The following general network technology knowledge and experience are required before attending any F5 Global Training Services instructor-led course:

- OSI model encapsulation
- Routing and switching
- Ethernet and ARP
- TCP/IP concepts
- IP addressing and subnetting
- NAT and private IP addressing
- Default gateway
- Network firewalls
- LAN vs. WAN

# Learning Outcomes

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## **Upon successful completion of this course, participants will be able to:**

- Describe the role of the BIG-IP system as a full proxy device in an application delivery network
- Set up, start/restart/stop, license, and provision the BIG-IP system out-of-the-box
- Create a basic network configuration on the BIG-IP system including VLANs and self IPs
- Use the Configuration utility and TMSH to manage BIG-IP resources such as virtual servers, pools, pool members, nodes, profiles, and monitors
- Create, restore from, and manage BIG-IP archives
- View resource status, availability, and statistical information and use this information to determine how the BIG-IP system is currently processing traffic
- Use profiles to manipulate the way the BIG-IP system processes traffic through a virtual server
- Perform basic troubleshooting and problem determination activities including using the iHealth diagnostic tool
- Support, and view traffic flow using TCPDUMP
- Understand and manage user roles and partitions
- Configure and manage a sync-failover device group with more than two members
- Configure stateful failover using connection mirroring and persistence mirroring

## **Detailed Course Outline**

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### Chapter 1: Setting Up the BIG-IP System

- Introducing the BIG-IP System
- Initially Setting Up 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

- Configuring Network Time Protocol (NTP) Servers
- Configuring Domain Name System (DNS) Settings
- Configuring High Availability Options
- Archiving the BIG-IP Configuration
- Leveraging F5 Support Resources and Tools

## Chapter 2: Traffic Processing Building Blocks

- Identifying 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 State and Files
- BIG-IP System Configuration State
- Loading and Saving the System Configuration
- Shutting Down and Restarting the BIG-IP System
- Saving and Replicating Configuration Data (UCS and SCF)

## Chapter 3: Using NATs and SNATs

- 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 for and Mitigating Port Exhaustion

## Chapter 4: Monitoring Application Health

- Introducing Monitors

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

## Chapter 5: Modifying Traffic Behavior with Profiles

- Introducing Profiles
- Understanding Profile Types and Dependencies
- Configuring and Assigning Profiles
- Introducing SSL Offload and SSL Re-Encryption
- Managing Object State

## Chapter 6: Modifying Traffic Behavior with Persistence

- Understanding the Need for Persistence
- Introducing Source Address Affinity Persistence
- Managing Object State

## Chapter 7: Administering the BIG-IP System

- Configuring Logging
- Legacy Remote Logging
- Introducing High Speed Logging (HSL)
- High-Speed Logging Filters
- HSL Configuration Objects
- Configuring High Speed Logging
- 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

## Chapter 8: Configuring High Availability

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

### **Skills You Will Learn:**

- Describe the role of the BIG-IP system as a full proxy device in an application delivery network
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# Frequently Asked Questions

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## **Q: What delivery options are available for Administering BIG-IP?**

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
  - Traditional Instructor-Led Classroom Training (ILT)
  - On-site delivery at your offices anywhere in United Kingdom
  - Private dedicated courses customized for your team
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## **Q: How many CPD hours does this course provide?**

The 2-day Administering BIG-IP course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

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## **Q: What is the duration of the Administering BIG-IP training?**

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

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## **Q: Do you provide corporate training for Administering BIG-IP?**

Yes, we provide corporate training, dedicated training, and closed classes for Administering BIG-IP. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

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## **Q: What related terms do people search for?**

Popular related searches include: Administering BIG-IP, F5 Networks, TRG-BIG-OP-ADMIN

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**Q: Why choose Nexus Human for Administering BIG-IP?**

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

**Q: Are there any discount codes available?**

Yes! Use discount code **PENPAL5** when booking your Administering BIG-IP training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

**Nexus Human**

**Professional Training & Development**

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