



## TRAINING OFFERING

---

**You can reach us at:**

Arrow ECS, Nidderdale House, Beckwith Knowle, Harrogate, HG3 1SA

Email: [educationteam.ecs.uk@arrow.com](mailto:educationteam.ecs.uk@arrow.com)

Phone: 0870 251 1000



# Administering BIG-IP v.16.1

<b>CODE:</b>	<b>LENGTH:</b>	<b>PRICE:</b>
F5N_BIG-OP-ADMIN	16 Hours (2 days)	£1,595.00

## Description

This 2-day 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. Course Topics

- Getting started with the BIG-IP system
- Traffic processing with BIG-IP Local Traffic Manager (LTM)
- Using TMSH (TMOS Shell) command line interface
- Using NATs and SNATs
- Monitoring application health and managing object status
- Modifying traffic behavior with profiles, including SSL offload and re-encryption
- Modifying traffic behavior with persistence, including source address affinity and cookie persistence
- Troubleshooting the BIG-IP system, including logging (local, high-speed, and legacy remote logging), and using TCPDUMP
- User roles and administrative partitions
- vCMP concepts
- Configuring high availability (including active/standby and connection and persistence mirroring)

## Objectives

After completing this course, participants will be able to complete the following tasks:

- 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

## **Audience**

This course is intended for network administrators, operators, and engineers responsible for managing the normal day-to-day operation and administration of a BIG-IP application delivery network.

This course presents the prerequisite knowledge for many other of F5's BIG-IP instructor-led training courses.

## **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.

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

The following general network technology knowledge and experience are recommended 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

## **Programme**

### 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

#### 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

## Follow on courses

F5N\_BIG-LTM-CFG-3, Configuring BIG-IP LTM: Local Traffic Manager v.16.1  
 F5N\_BIG-DNS-I, Configuring BIG-IP DNS (formerly GTM) v.16.1  
 F5N\_BIG-AWF-CFG, Configuring F5 Advanced WAF (previously licensed as ASM) v16.1  
 F5N\_BIG-EGW-APM, Configuring BIG-IP APM: Access Policy Manager v.16.1  
 F5N\_BIG-IRULE-CFG, Developing iRules for BIG-IP v.16.1  
 F5N\_BIG-TRBL-INT2, Troubleshooting BIG-IP v.16.1

## Test and Certification

Exam 201 – TMOS Administration Prerequisite: Valid passing score on Exam 101 or valid F5-CTP, Sales Certification  
 This is the second and final exam that must be completed successfully by candidates wishing to achieve F5 Certified! Administrator, BIG-IP status.

Passing this exam shows independence in performing day-to-day operations and basic troubleshooting of TMOS-based devices in various application environments after it has been installed, configured, and implemented.

Individuals may choose to complete their certification journey here or move on to pursue the Technical Professional, Technical Specialist, Cloud or Security Solutions certification tracks.

[View Exam 201 study materials on AskF5](#)

Exam vouchers can be purchased from Arrow ECS at an additional charge. Vouchers can be used at [www.vue.com/f5](http://www.vue.com/f5) to schedule exams at a time and location convenient to the attendee. Course Changes since v15

- No significant changes to course outline or materials since the v15 release.

Minor updates to the course include review and update of referenced knowledge articles, GUI screenshots, hardware platform images in introduction and chapter 1 slides and student guide pages, and removed information for obsolete topics such as Link Controller.

## Further Information

Course Changes since v15

- No significant changes to course outline or materials since the v15 release.

Minor updates to the course include review and update of referenced knowledge articles, GUI screenshots, hardware platform images in introduction and chapter 1 slides and student guide pages, and removed information for obsolete topics such as Link Controller.

## Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
27 Feb 2023	Arrow ECS London c/o Imparando	GMT	English	Classroom		£1,595.00
27 Feb 2023	Virtual Classroom	GMT	English	Instructor Led Online		£1,595.00
17 Apr 2023	Virtual Classroom	BST	English	Instructor Led Online		£1,595.00
05 Jun 2023	Arrow ECS London c/o Imparando	BST	English	Classroom		£1,595.00
05 Jun 2023	Virtual Classroom	BST	English	Instructor Led Online		£1,595.00
24 Jul 2023	Virtual Classroom	BST	English	Instructor Led Online		£1,595.00
11 Sep 2023	Virtual Classroom	BST	English	Instructor Led Online		£1,595.00
30 Oct 2023	Arrow ECS London c/o Imparando	GMT	English	Classroom		£1,595.00
30 Oct 2023	Virtual Classroom	GMT	English	Instructor Led Online		£1,595.00
11 Dec 2023	Virtual Classroom	GMT	English	Instructor Led Online		£1,595.00

## Additional Information

This training is also available as onsite training. [Please contact us to find out more.](#)