



TRAINING OFFERING

You can reach us at:

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

Email: educationteam.ecs.uk@arrow.com

Phone: 0870 251 1000



Troubleshooting BIG-IP v.16.1

CODE:	LENGTH:	PRICE:
F5N_BIG-TRBL-INT2	2 days	£1,650.00

Description

This 2 day course gives networking professionals hands-on knowledge of how to troubleshoot a BIG-IP system using a number of troubleshooting techniques as well as troubleshooting and system tools.

- Configuration Project
- Troubleshooting Methodology
- F5 Support
- Troubleshooting - Bottom to Top
- Troubleshooting Tools

This course includes lectures, labs, and discussions. Topics Covered • Using System Logs

Objectives

At the end of this course, the student 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
- Create a basic network configuration on the BIG-IP system including VLANs and self IPs
- Use the Configuration utility and TMOS Shell (tmsh) to manage BIG-IP resources and use as a resource when troubleshooting
- Create, restore from, and manage BIG-IP archives
- Understand and implement troubleshooting methodology to find and resolve issues
- View resource status, availability, and statistical information and use this information to determine how the BIG-IP system is currently processing traffic
- Use iApps to update BIG-IP configuration
- Perform troubleshooting and problem determination activities including using the iHealth diagnostic tool, researching known issues and solutions on AskF5, submitting a problem ticket to F5 Technical Support, and view traffic flow using tcpdump
- Understand the tools (ping, netstat, tcpdump, ssldump, WireShark, diff, Kdiff3, Fiddler, BIG-IP logs, etc.) available to use to identify BIG-IP and network issues from bottom to top
- List log files available, understand log levels, and use the appropriate files, log levels, and filters for troubleshooting
- Use High Speed Logging (HSL) and SNMP trap implementations to perform troubleshooting and problem determination activities
- Describe the role of iRules in affecting traffic behavior and how to use them to aid with troubleshooting and problem determination

Audience

This course assumes that you have successfully completed the Administering BIG-IP course, or equivalent, and have hands-on experience working in a production BIG-IP environment for several months.

You should have a solid understanding of the environment in which the BIG-IP is deployed.

This course is meant for BIG-IP administrators, network engineers, applications engineers, etc., who will be responsible for troubleshooting problems associated with their BIG-IP system

Prerequisites

Students are required to complete one of the following F5 prerequisites before attending this course:

- Administering BIG-IP instructor-led course -Or-
- F5 Certified BIG-IP Administrator

The following free web-based courses, although optional, will be very helpful for any student with limited BIG-IP administration and configuration experience. These courses are available at LearnF5 (<https://www.f5.com/services/training>):

- 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 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

The following course-specific knowledge and experience is suggested before attending this course:

- HTTP, HTTPS, FTP and SSH protocols

Programme

- Introducing the BIG-IP System
- Initially Setting Up the BIG-IP System

Chapter 1: Setting Up the BIG-IP System ▪ Archiving the BIG-IP System Configuration

- Reviewing Nodes, Pools, and Virtual Servers
- Reviewing Address Translation
- Reviewing Routing Assumptions
- Reviewing Application Health Monitoring
- Reviewing Traffic Behavior Modification with Profiles
- Reviewing the TMOS Shell (TMSH)
- Reviewing Managing BIG-IP Configuration Data

Chapter 2: Reviewing Local Traffic Configuration ▪ Reviewing High Availability (HA)

- Step-By-Step Process
 - o Step 1: State the Problem
 - o Step 2: Specify the Problem
 - o Step 3: Map the System
 - o Step 4: Develop Possible Causes
 - o Step 5: Test Theories
 - o Step 6: Iterate Until Root Cause Identified
- Documenting a Problem

Chapter 3: Troubleshooting Methodology ▪ Putting Troubleshooting Steps to Use

Chapter 4: Working with F5 Support

- Leveraging F5 Support Resources
- AskF5.com
- DevCentral
- iHealth
- Leveraging F5 Labs
- Working with F5 Technical Support
- Running End User Diagnostics (EUD) - Hardware Only
- New Platform Diagnostic Tools
- Always-On Management (AOM) Subsystem
- Requesting Return Materials Authorization
- F5's Software Version Policy
- Managing the BIG-IP License for Upgrades
- Managing BIG-IP Disk Space
- Upgrading BIG-IP Software

Chapter 5: Troubleshooting – Bottom to Top

- Introducing Differences between BIG-IP and LINUX Tools
 - Troubleshooting with Layer 1/Layer 2 Tools
 - Troubleshooting with Layer 2/Layer 3 Tools
 - Troubleshooting with Layer 3 Tools
 - Troubleshooting Network Communication
 - Troubleshooting Memory and CPU
 - Troubleshooting with watch
 - Troubleshooting with Additional tmsh commands
- tcpdump
 - Wireshark
 - ssldump
 - Fiddler
 - diff
 - KDiff3

Chapter 6: Troubleshooting Tools ▪ cURL

- Configuring Logging
- Log Files
- Understanding BIG-IP Daemons Functions
- Triggering an iRule
- Deploying and Testing iRules

Chapter 7: Using System Logs ▪ Application Visibility and Reporting

Chapter 8: Troubleshooting Lab Projects

- Network Configurations for Project

Follow on courses

F5N_BIG-LTM-CFG-3, Configuring BIG-IP LTM: Local Traffic Manager v.15.1
 F5N_BIG-DNS-I, Configuring BIG-IP DNS (formerly GTM) v.15.1
 F5N_BIG-AWF-CFG, Configuring F5 Advanced WAF (previously licensed as ASM) v15.1
 F5N_BIG-EGW-APM, Configuring BIG-IP APM: Access Policy Manager v.15.1
 F5N_BIG-AFM, Configuring BIG-IP AFM: Advanced Firewall Manager v.15.1

Other courses available: F5N_BIG-IRULE-CFG, Developing iRules for BIG-IP v.15.1

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
17 Mar 2022	London - Dowgate Hill	GMT	English	Classroom		£1,650.00
17 Mar 2022	Virtual Classroom	GMT	English	Instructor Led Online		£1,650.00
26 May 2022	London - Dowgate Hill	BST	English	Classroom		£1,650.00
26 May 2022	Virtual Classroom	BST	English	Instructor Led Online		£1,650.00
04 Aug 2022	London - Dowgate Hill	BST	English	Classroom		£1,650.00
04 Aug 2022	Virtual Classroom	BST	English	Instructor Led Online		£1,650.00
13 Oct 2022	London - Dowgate Hill	BST	English	Classroom		£1,650.00
13 Oct 2022	Virtual Classroom	BST	English	Instructor Led Online		£1,650.00
22 Dec 2022	London - Dowgate Hill	GMT	English	Classroom		£1,650.00
22 Dec 2022	Virtual Classroom	GMT	English	Instructor Led Online		£1,650.00

Additional Information

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