



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



Administering BIG-IP and Configuring BIG-IP LTM v.15.1: Local Traffic Manager Bundle

CODE:	LENGTH:	PRICE:
F5N_BIGIPAD_LTM_BDLE	5 days	£3,320.00

Description

Attend both the F5 Administering BIG-IP and Configuring BIG-IP LTM v14.1: Local Traffic Manager courses in the same week and save ££s*!

Administering BIG-IP v15.1

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.

Configuring BIG-IP LTM v15.1: Local Traffic Manager

This course gives network professionals a functional understanding of BIG-IP Local Traffic Manager, introducing students to both commonly used and advanced BIG-IP LTM features and functionality. Incorporating lecture, extensive hands-on labs, and classroom discussion, the course helps students build the well-rounded skill set needed to manage BIGIP LTM systems as part of a flexible and high-performance application delivery network.

***Please note that this offer is not to be used in conjunction with any other discount structure or promotion. Please quote F5N_BIGIPAD_LTM_BDLE when booking.**

Objectives

At the end of this course, the student will be able to: **Administering BIG-IP v15.1**

- 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

Configuring BIG-IP LTM v15.1: Local Traffic Manager • Back up the BIG-IP system configuration for safekeeping

- Configure virtual servers, pools, monitors, profiles, and persistence objects
- Test and verify application delivery through the BIG-IP system using local traffic statistics
- Configure priority group activation on a load balancing pool to allow servers to be activated only as needed to process traffic
- Compare and contrast member-based and node-based dynamic load balancing methods
- Configure connection limits to place a threshold on traffic volume to particular pool members and nodes
- Differentiate between cookie, SSL, SIP, universal, and destination address affinity persistence, and describe use cases for each
- Describe the three Match Across Services persistence options and use cases for each
- Configure health monitors to appropriately monitor application delivery through a BIG-IP system
- Configure different types of virtual services to support different types of traffic processing through a BIG-IP system
- Configure different types of SNATs to support routing of traffic through a BIG-IP system • Configure VLAN tagging and trunking
- Restrict administrative and application traffic through the BIG-IP system using packet filters, port lockdown, and virtual server settings
- Configure SNMP alerts and traps in support of remote monitoring of the BIG-IP system
- Use iRules and local traffic policies appropriately to customize application delivery through the BIG-IP system

- Configure the BIG-IP to detect and mitigate some common attacks at the network and application layers using LTM features such as SYN check, eviction policies, iRules and Local Traffic Policies

Audience

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

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 LearnF5 (<https://www.f5.com/services/training>):

- Getting Started with BIG-IP
- 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

Programme

Administering BIG-IP v15.1 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 ReEncryption

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

Configuring BIG-IP LTM v15.1: Local Traffic Manager Chapter 1: Setting Up the BIG-IP System Introducing the BIG-IP System
Initially Setting Up the BIG-IP System Archiving the BIG-IP Configuration Leveraging F5 Support Resources and Tools
Chapter 2: Reviewing Local Traffic 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 3: Load Balancing Traffic with LTM
Exploring Load Balancing Options Using Priority Group Activation and Fallback Host
Comparing Member and Node Load Balancing Chapter 4: Modifying Traffic Behavior with Persistence Reviewing Persistence
Introducing Cookie Persistence Specifying Default and Fallback Persistence Introducing SSL Persistence
Introducing SIP Persistence Introducing Universal Persistence Introducing Destination Address Affinity Persistence
Using Match Across Options for Persistence Chapter 5: Monitoring Application Health Differentiating Monitor Types
Customizing the HTTP Monitor Monitoring an Alias Address and Port Monitoring a Path vs. Monitoring a Device
Managing Multiple Monitors Using Application Check Monitors Using Manual Resume and Advanced Monitor Timer Settings
Chapter 6: Processing Traffic with Virtual Servers Understanding the Need for Other Virtual Server Types
Forwarding Traffic with a Virtual Server Understanding Virtual Server Order of Precedence Path Load Balancing
Chapter 7: Processing Traffic with SNATs Overview of SNATs Using SNAT Pools SNATs as Listeners SNAT Specificity
VIP Bounceback Additional SNAT Options Network Packet Processing Review Chapter 8: Modifying Traffic Behavior with Profiles
Profiles Overview TCP Express Optimization TCP Profiles Overview HTTP Profile Options HTTP/2 Profile Options OneConnect
Offloading HTTP Compression to BIG-IP Web Acceleration Profile and HTTP Caching Stream Profiles
F5 Acceleration Technologies Chapter 9: Selected Topics VLAN, VLAN Tagging, and Trunking Restricting Network Access
SNMP Features Segmenting Network Traffic with Route Domains Chapter 10: Customizing Application Delivery with iRule
Getting Started with iRules Understanding When iRules are Triggered Deploying iRules Constructing an iRule
Testing and Debugging iRules Exploring iRules Documentation
Chapter 11: Customizing Application Delivery with Local Traffic Policies Getting Started with Local Traffic Policies
Configuring and Managing Policy Rules Chapter 12: Securing Application Delivery with LTM
Understanding Today's Threat Landscape Integrating LTM Into Your Security Strategy
Defending Your Environment Against SYN Flood Attacks Defending Your Environment Against Other Volumetric Attacks
Addressing Application Vulnerabilities with iRules and Local Traffic Policies Detecting and Mitigating Other Common HTTP Threats
Chapter 13: Final Lab Project About the Final Lab Project Possible Solution to Lab 13.1

Follow on courses

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

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.

Exam 301a - BIG-IP LTM Specialist: Architect, Set-up, Deploy

[View Exam 201 study materials on AskF5](#) Prerequisites: Valid F5-CA, BIG-IP Certification

This is the first of two exams in the F5 Certified Technology Specialist, BIG-IP LTM certification and serves as a prerequisite to exam 301b. Candidates who pass this exam possess an understanding of underlying principles – from SSL-based VPN implementation to symmetric and asymmetric acceleration – and can draw on that insight to integrate BIG-IP LTM into existing networks as well as new implementations. Receiving the F5-CTS, BIG-IP LTM certification is a prerequisite for both the Cloud and Security Solutions Expert certification tracks.

Exam 301b - BIG-IP LTM Specialist: Maintain and Troubleshoot

[View Exam 301a study materials on AskF5](#) Prerequisites: Valid F5-CA, BIG-IP Certification, valid passing score on Exam 301a

This is the second exam candidates are required to pass in order to receive the F5 Certified Technology Specialist, BIGIP LTM certification. Passing this exam validates their ability to design, implement, maintain, and troubleshoot advanced F5 product features to enhance the effectiveness of an Application Delivery Network. In addition, it shows that a candidate understands underlying principles – from SSL-based VPN implementation to symmetric and asymmetric acceleration – and can draw on that insight to integrate BIG-IP LTM into existing networks as well as new implementations. Receiving the F5-CTS, BIG-IP LTM certification is a prerequisite for both the Cloud and Security Solutions Expert certification tracks.

[View Exam 301b 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 to schedule exams at a time and location convenient to the attendee.

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
06 Dec 2021	Virtual Classroom	GMT	English	Instructor Led Online		£ 3,320.00 £2,988.00
10 Jan 2022	London - Dowgate Hill	GMT	English	Classroom		£3,320.00
10 Jan 2022	Virtual Classroom	GMT	English	Instructor Led Online		£3,320.00
14 Feb 2022	London - Dowgate Hill	GMT	English	Classroom		£3,320.00
14 Feb 2022	Virtual Classroom	GMT	English	Instructor Led Online		£3,320.00
21 Mar 2022	London - Dowgate Hill	GMT	English	Classroom		£3,320.00
21 Mar 2022	Virtual Classroom	GMT	English	Instructor Led Online		£3,320.00
25 Apr 2022	London - Dowgate Hill	BST	English	Classroom		£3,320.00
25 Apr 2022	Virtual Classroom	BST	English	Instructor Led Online		£3,320.00
23 May 2022	London - Dowgate Hill	BST	English	Classroom		£3,320.00
23 May 2022	Virtual Classroom	BST	English	Instructor Led Online		£3,320.00
04 Jul 2022	London - Dowgate Hill	BST	English	Classroom		£3,320.00
04 Jul 2022	Virtual Classroom	BST	English	Instructor Led Online		£3,320.00

08 Aug 2022	London - Dowgate Hill	BST	English	Classroom	£3,320.00
08 Aug 2022	Virtual Classroom	BST	English	Instructor Led Online	£3,320.00
12 Sep 2022	London - Dowgate Hill	BST	English	Classroom	£3,320.00
12 Sep 2022	Virtual Classroom	BST	English	Instructor Led Online	£3,320.00
17 Oct 2022	London - Dowgate Hill	BST	English	Classroom	£3,320.00
17 Oct 2022	Virtual Classroom	BST	English	Instructor Led Online	£3,320.00
21 Nov 2022	London - Dowgate Hill	GMT	English	Classroom	£3,320.00
21 Nov 2022	Virtual Classroom	GMT	English	Instructor Led Online	£3,320.00
12 Dec 2022	London - Dowgate Hill	GMT	English	Classroom	£3,320.00
12 Dec 2022	Virtual Classroom	GMT	English	Instructor Led Online	£3,320.00

Additional Information

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