



Enterprise Computing Solutions - Education Services

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



Configuring BIG-IP LTM: Local Traffic Manager v.16.1

CODE:	LENGTH:	PRICE:
F5N_BIG-LTM-CFG-3	24 Hours (3 days)	£2,295.00

Description

Learn how to configure and manage BIG-IP Local Traffic Manager (LTM) as it is commonly deployed in an application delivery network to achieve operational efficiency and maintain critical business applications. Through a combination of lecture and hands-on labs, explore features and functionality to process and modify traffic behavior using profiles, persistence, caching, compression, and source network address translation (SNAT).

Monitor application health at layers 3, 4, and 7, and implement dynamic load balancing methods. Use traffic management shell (TMSH), the Configuration utility, and Linux commands to create traffic processing and monitoring objects, observe the resulting traffic statistics, and effectively operate the BIG-IP LTM system. Customize application delivery with iRules, establish application security, and harden system security using BIG-IP LTM functionality.

Objectives

At the end of this course, the student will be able to:

- 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 responsible for installation, setup, configuration, and administration of the BIG-IP LTM system.

Prerequisites

Students must complete one of the following F5 prerequisites before attending this course:

- Administering BIG-IP (ILT)
- F5 Certified BIG-IP Administrator

Suggested Pework

The following free Self-Directed Training (SDT) courses, although optional, are helpful for any student with limited BIG-IP administration and configuration experience:

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

General network technology knowledge and experience are recommended before attending any F5 Global Training Services instructor-led course, including OSI model encapsulation, routing and switching, Ethernet and ARP, TCP/IP concepts, IP addressing and subnetting, NAT and private IP addressing, NAT and private IP addressing, default gateway, network firewalls, and LAN vs. WAN.

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

- Web application delivery
- HTTP, HTTPS, FTP, and SSH protocols
- TLS/SSL

Programme

<p>Chapter 1: Introducing the BIG-IP System</p> <ul style="list-style-type: none"> • Introducing the BIG-IP System • Initially Setting Up the BIG-IP System • Archiving the BIG-IP Configuration • Leveraging F5 Support Resources and Tools 	<p>Chapter 2: Reviewing Local Traffic Configuration</p> <ul style="list-style-type: none"> • 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
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	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
Chapter 3: Load Balancing Traffic with LTM	• Introducing Destination Address Affinity Persistence
• Exploring Load Balancing Options	• Using Match Across Options for Persistence
• Using Priority Group Activation and Fallback Host	
• Comparing Member and Node Load Balancing	
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 8: Modifying Traffic Behavior with Profiles
	• Profiles Overview
	• TCP Express Optimization
Chapter 7: Processing Traffic with SNATs	• TCP Profiles Overview
• Overview of SNATs	• HTTP Profile Options
• Using SNAT Pools	• HTTP/2 Profile Options
• SNATs as Listeners	• OneConnect
• SNAT Specificity	• Offloading HTTP Compression to BIG-IP
• VIP Bounceback	• Web Acceleration Profile and HTTP Caching
• Additional SNAT Options	• Stream Profiles
• Network Packet Processing Review	• F5 Acceleration Technologies
	Chapter 10: Customizing Application Delivery with iRules
	• Getting Started with iRules
	• Understanding When iRules are Triggered
	• Deploying iRules
	• Constructing an iRule
	• Testing and Debugging iRules
Chapter 9: Selected Topics	• Exploring iRules Documentation
• VLAN, VLAN Tagging, and Trunking	
• Restricting Network Access	
• SNMP Features	
• Segmenting Network Traffic with Route Domains	
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 14: Additional Training and Certification	
• Getting Started Series Web-Based Training	
• F5 Instructor Led Training Curriculum	
• F5 Professional Certification Program	
	Chapter 13: Final Lab Project
	• About the Final Lab Project

Follow on courses

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

Test and Certification

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

View Exam 301a study materials on AskF5

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

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.

Further Information

Course Changes since v15

Updates for the v16.1 release include changes to TCP Profiles and Securing Application Delivery chapters. All remaining content was reviewed and updated for relevance to the BIG-IP v16.1 release.

Follow-on Courses

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
24 Apr 2024	Arrow ECS London c/o Imparando	BST	English	Classroom		£2,295.00
24 Apr 2024	Virtual Classroom	BST	English	Instructor Led Online		£ 2,295.00 £1,950.75
12 Jun 2024	Virtual Classroom	BST	English	Instructor Led Online		£2,295.00
11 Sep 2024	Arrow ECS London c/o Imparando	BST	English	Classroom		£2,295.00
11 Sep 2024	Virtual Classroom	BST	English	Instructor Led Online		£2,295.00
20 Nov 2024	Virtual Classroom	GMT	English	Instructor Led Online		£2,295.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.