Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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

CODE:	LENGTH:	PRICE:
F5N_BIG-LTM-CFG-3	24 Hours (3 days)	€2,495.00

Description

This 3 day 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.
Topics Covered
• BIG-IP initial setup (licensing, provisioning, and network configuration)
• A review of BIG-IP local traffic configuration objects
• Using dynamic load balancing methods
• Modifying traffic behavior with persistence (including SSL, SIP, universal, and destination address affinity persistence)
• Monitoring application health with Layer 3, Layer 4, and Layer 7 monitors (including transparent, scripted, and external monitors)
• Processing traffic with virtual servers (including network, forwarding, and reject virtual servers)
• Processing traffic with SNATs (including SNAT pools and SNATs as listeners)
• Modifying traffic behavior with profiles (including TCP profiles, advanced HTTP profile options, caching, compression, and OneConnect profiles)
• Advanced BIG-IP LTM configuration options (including VLAN tagging and trunking, SNMP features, packet filters, and route domains)
• Customizing application delivery with iRules and local traffic policies
• Securing application delivery using BIG-IP LTM

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 are required to complete one of the following F5 prerequisites before attending this course:
? Administering BIG-IP instructor-led course
? 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:
? Web application delivery
? HTTP, HTTPS, FTP and SSH protocols
? TLS/SSL

Programme

? Introducing the BIG-IP System
? Initially Setting Up the BIG-IP System
? Archiving the BIG-IP Configuration
Chapter 1: Setting Up the BIG-IP System? Leveraging F5 Support Resources and Tools
? 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)
Chapter 2: Reviewing Local Traffic Configuration? Reviewing Managing BIG-IP Configuration Data
? Exploring Load Balancing Options
? Using Priority Group Activation and Fallback Host
Chapter 3: Load Balancing Traffic with LTM? Comparing Member and Node Load Balancing
? Reviewing Persistence
? Introducing Cookie Persistence
? Specifying Default and Fallback Persistence
? Introducing SSL Persistence
? Introducing SIP Persistence
? Introducing Universal Persistence
? Introducing Destination Address Affinity Persistence
Chapter 4: Modifying Traffic Behavior with Persistence? Using Match Across Options for Persistence
? 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
Chapter 5: Monitoring Application Health? Using Manual Resume and Advanced Monitor Timer Settings
? Understanding the Need for Other Virtual Server Types
? Forwarding Traffic with a Virtual Server
? Understanding Virtual Server Order of Precedence
Chapter 6: Processing Traffic with Virtual Servers? Path Load Balancing
? Overview of SNATs
? Using SNAT Pools
? SNATs as Listeners
? SNAT Specificity
? VIP Bounceback
? Additional SNAT Options
Chapter 7: Processing Traffic with SNATs? Network Packet Processing ReviewChapter 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
? VLAN, VLAN Tagging, and Trunking
? Restricting Network Access
? SNMP Features
Chapter 9: Selected Topics? Segmenting Network Traffic with Route Domains
? Getting Started with iRules
? Understanding When iRules are Triggered
? Deploying iRules
? Constructing an iRule
? Testing and Debugging iRules
Chapter 10: Customizing Application Delivery with iRule? Exploring iRules Documentation
? Getting Started with Local Traffic Policies
Chapter 11: Customizing Application Delivery with Local Traffic Policies? Configuring and Managing Policy Rules
? 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
Chapter 12: Securing Application Delivery with LTM? Detecting and Mitigating Other Common HTTP Threats
? About the Final Lab Project
Chapter 13: 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 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.

Exam 301b - BIG-IP LTM Specialist: Maintain and Troubleshoot
View Exam 301a study materials on AskF5Prerequisites: 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
15 May 2024	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€2,495.00

Additional Information

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