



Arrow ECS Finland Oy - Education Services

## TRAINING OFFERING

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# F5 Administering BIG-IP V12 and Configuring BIG-IP LTM v12: Local Traffic Manager Bundle

CODE:	LENGTH:	PRICE:
F5N_BIGIPAD_LTM_BDLE	5 day(s)	€4,220.00

## 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 BIG-IP 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.

View Exam 201 study materials on AskF5

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](http://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
29 Aug 2022	Virtual Classroom (CET +1 / UTC +2)	EEST	English	Instructor Led Online		€4,220.00
03 Oct 2022	Virtual Classroom (CET +1 / UTC +2)	EEST	English	Instructor Led Online		€4,220.00
12 Dec 2022	Virtual Classroom (CET +1 / UTC +2)	EET	English	Instructor Led Online		€4,220.00

## **Additional Information**

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