



Arrow ECS Finland Oy - Education Services

## TRAINING OFFERING

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# Configuring BIG-IP LTM: Local Traffic Manager v16.1

| <b>CODE:</b>      | <b>LENGTH:</b>    | <b>PRICE:</b> |
|-------------------|-------------------|---------------|
| F5N_BIG-LTM-CFG-3 | 24 Hours (3 days) | €2,695.00     |

## Description

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.

By the end of this course, the student should be able to use both the Configuration utility, TMSH, and Linux commands to configure and manage BIG-IP LTM systems in an application delivery network. In addition, students should be able to monitor the BIG-IP system to achieve operational efficiency, and establish and maintain high availability infrastructure for critical business applications.

## Objectives

- 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 an F5-supplied iApp template to deploy and manage a website application service
- 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 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 F5 University:

- 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

**v14.1 COURSE OUTLINE 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 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 OneConnect Offloading HTTP Compression to BIG-IP 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: Deploying Application Services with iApps**  
Simplifying Application Deployment with iApps Using iApps Templates Deploying an Application Service  
Leveraging the iApps Ecosystem on DevCentral  
**Chapter 11: Customizing Application Delivery with iRules and Local Traffic Policies** Getting Started with iRules  
Triggering an iRule Introducing iRule Constructs Leveraging the DevCentral Ecosystem Deploying and Testing iRules  
Getting Started with Local Traffic Policies What Can You Do with a Local Traffic Policy? How Does a Local Traffic Policy Work?  
Understanding Local Traffic Policy Workflow Introducing the Elements of a Local Traffic Policy Specifying the Matching Strategy  
What Are Rules? Understanding Requires and Controls Configuring and Managing Policy Rules Configuring a New Rule  
Including Tcl in Certain Rule Settings **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 **Chapter 13: Final Lab Project**  
About the Final Lab Project Possible Solution to Lab 13.1

## Session Dates

| Date        | Location                         | Time Zone | Language | Type                  | Guaranteed | PRICE     |
|-------------|----------------------------------|-----------|----------|-----------------------|------------|-----------|
| 08 Mar 2023 | Virtual Classroom (CET / UTC +1) | CET       | English  | Instructor Led Online |            | €2,695.00 |
| 08 Mar 2023 | Espoo                            | EET       | English  | Classroom             |            | €2,695.00 |
| 10 May 2023 | Virtual Classroom (CET / UTC +1) | CEDT      | English  | Instructor Led Online |            | €2,695.00 |
| 10 May 2023 | Espoo                            | EEST      | English  | Classroom             |            | €2,695.00 |
| 14 Jun 2023 | Virtual Classroom (CET / UTC +1) | CEDT      | English  | Instructor Led Online |            | €2,695.00 |
| 14 Jun 2023 | Espoo                            | EEST      | English  | Classroom             |            | €2,695.00 |

## Additional Information

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