

## Configuring BIG-IP Local Traffic Manager (LTM)

This course gives network professionals a functional understanding of BIG-IP Local Traffic Manager (LTM), introducing students to both commonly used and advanced LTM features. 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.

### Kursinhalt

- 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)
- Deploying application services with iApps
- Customizing application delivery with iRules and local traffic policies
- Securing application delivery using BIG-IP LTM

Jeder Teilnehmer erhält die englischsprachigen Original-Unterlagen von F5 Networks in elektronischer Form.

### Zielgruppe

This course is intended for network operators, network administrators, network engineers, network architects, security administrators, and security architects responsible for installation, setup, configuration, and administration of the BIG-IP LTM system.

### Voraussetzungen

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 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

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### Dieser Kurs im Web



Alle tagesaktuellen Informationen und Möglichkeiten zur Bestellung finden Sie unter dem folgenden Link: [www.expertech.ch/go/FLTLM](http://www.expertech.ch/go/FLTLM)

### Vormerkung

Sie können auf unserer Website einen Platz kostenlos und unverbindlich für 7 Tage reservieren. Dies geht auch telefonisch unter 06074 4868-0.

### Garantierte Kurstermine

Für Ihre Planungssicherheit bieten wir stets eine große Auswahl garantierter Kurstermine an.

### Ihr Kurs maßgeschneidert

Diesen Kurs können wir für Ihr Projekt exakt an Ihre Anforderungen anpassen.

Training	Preise zzgl. MwSt.
<b>Termine in Deutschland</b>	<b>3 Tage CHF 3.635,-</b>
<b>Online Training</b>	<b>3 Tage CHF 3.635,-</b>
<b>Termin/Kursort</b>	Kurssprache Deutsch
22.05.-24.05.24  München	19.06.-21.06.24  Online
22.05.-24.05.24  Online	
<b>Termin/Kursort</b>	Kurssprache Englisch
05.06.-07.06.24  Online	20.11.-22.11.24  Online
11.09.-13.09.24  Online	



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## Configuring BIG-IP Local Traffic Manager (LTM)

### 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

