

Configuring BIG-IP LTM: Local Traffic Manager

Learn to configure and manage F5 BIG-IP LTM, from load balancing and persistence to iRules and traffic security.

13

MODULES

69

TOPICS

COURSE OVERVIEW

This course covers setting up the BIG-IP system and reviewing local traffic configuration elements such as nodes, pools, virtual servers, and profiles. It proceeds through load balancing methods, persistence techniques, application health monitoring, and traffic processing with virtual servers and SNATs. Further modules address traffic behavior modification with profiles, selected networking topics, and application delivery customization using iRules and local traffic policies. The course concludes with securing application delivery with LTM and a final lab project.

WHO THIS COURSE IS FOR

Network Administrators

Systems Engineers

Application Delivery Engineers

Network Security Engineers

Solution Engineers

LEARNING OBJECTIVES

- Explain the initial setup and configuration of the BIG-IP system
- Describe nodes, pools, virtual servers, and address translation
- Compare load balancing options such as member and node load balancing
- Apply persistence methods including cookie, SSL, and universal persistence
- Configure application health monitoring using various monitor types
- Implement virtual servers and SNATs to process network traffic
- Develop iRules and local traffic policies to customize application delivery
- Identify methods for securing application delivery against common threats

13 Modules, 69 Topics

01

Setting Up the BIG-IP System

TOPICS

Introducing the BIG-IP System · Initially Setting Up the BIG-IP System · Archiving the BIG-IP Configuration · Leveraging F5 Support Resources and Tools

02

Reviewing Local Traffic Configuration

TOPICS

- 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

03

Load Balancing Traffic with LTM

TOPICS

- Exploring Load Balancing Options
- Using Priority Group Activation and Fallback Host
- Comparing Member and Node Load Balancing

04

Modifying Traffic Behavior with Persistence

TOPICS

- 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

05

Monitoring Application Health

TOPICS

- 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

06

Processing Traffic with Virtual Servers

TOPICS

- Understanding the Need for Other Virtual Server Types
- Forwarding Traffic with a Virtual Server
- Understanding Virtual Server Order of Precedence
- Path Load Balancing

07

Processing Traffic with SNATs

TOPICS

Overview of SNATs · Using SNAT Pools · SNATs as Listeners · SNAT Specificity · VIP Bounceback · Additional SNAT Options · Network Packet Processing Review

08

Modifying Traffic Behavior with Profiles

TOPICS

- 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

09

Selected Topics

TOPICS

VLAN, VLAN Tagging, and Trunking · Restricting Network Access · SNMP Features · Segmenting Network Traffic with Route Domains

10

Customizing Application Delivery with iRules

TOPICS

Getting Started with iRules · Understanding When iRules are Triggered · Deploying iRules · Constructing an iRule · Testing and Debugging iRules · Exploring iRules Documentation

11

Customizing Application Delivery with Local Traffic Policies

TOPICS

Getting Started with Local Traffic Policies · Configuring and Managing Policy Rules

12

Securing Application Delivery with LTM

TOPICS

- 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

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Final Lab Project

TOPICS

About the Final Lab Project

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

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Who We Are

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