Training: F5
Administering BIG-IP

TRAINING GOALS:

Begin the BIG-IP learning journey with Administering BIG-IP. Learn how to set up and operate the BIG-IP system as it is commonly deployed in an application delivery network. Through a combination of instructor-led lecture and hands-on labs, complete initial configuration including licensing, resource provisioning, networking, high-availability (HA), and more to establish a secure system. Gain practical experience implementing traffic processing objects: pools, virtual servers, health monitors, network address translation (NATs and SNATs), and more. Explore modifying traffic behavior with profiles that include SSL offload and re-encryption, and with persistence, including source address affinity and cookie persistence using the configuration utility graphical user interface (GUI) and TMSH (TMOS Shell) command line interface (CLI). Build troubleshooting skills learning various logging methods including local, high-speed, and legacy remote logging combined with practice using troubleshooting tools like TCPDUMP. Learn typical administrative and operational activities including user roles and administrative partition creation and management.

Audience

This course is intended for network administrators, operators, and engineers responsible for managing the normal day-to-day operation and administration of a BIG-IP application delivery network. This course presents the prerequisite knowledge for many other of F5's BIG-IP instructor-led training courses.

CONSPECT:

- 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

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    - 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 Re-Encryption

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- 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

REQUIREMENTS:

The following free Self-Directed Training (SDT) courses, although optional, are helpful for any student with limited BIG-IP administration and configuration experience:

- Getting Started with BIG-IP
- Getting Started with Local Traffic Manager (LTM)

Difficulty level



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CERTIFICATE:

The participants will obtain certificates signed by F5 (course completion).

This course helps prepare participants for the F5 Certified Administrator, BIG-IP (F5-CA, BIG-IP) certification. The certification requires candidates to pass five exams: BIG-IP Administration Install, Initial Configuration, and Upgrade (F5CAB1); BIG-IP Administration Data Plane Concepts (F5CAB2); BIG-IP Administration Data Plane Configuration (F5CAB3); BIG-IP Administration Control Plane Administration (F5CAB4); and BIG-IP Administration Support and Troubleshooting (F5CAB5).

More information: https://education.f5.com/learning-path/view/9

TRAINER:

Certified F5 Networks Trainer.

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