F5 Networks Administering BIG-IP

Duration: *2 Day(s)*

Course Overview

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.

Review this course online at https://www.alta3.com/courses/F5Admin

Objectives

- Understand core components of the BIG-IP system.
- Configure BIG-IP for optimized traffic management.
- Implement high availability and failover strategies.
- Utilize BIG-IP tools for enhanced network monitoring.

Who Should Attend

- Network Administrators
- Network Operators
- Network Engineers
- IT Professionals managing BIG-IP systems

Prerequisites

OSI model, TCP/IP addressing and routing, WAN, LAN environments, and server redundancy concepts

Course Outline

Lesson 1: Setting Up the BIG-IP System

1. Introducing the BIG-IP System
2. Initially Setting Up the BIG-IP System
3. Configuring the Management Interface
4. Activating the Software License
5. Provisioning Modules and Resources
6. Importing a Device Certificate
7. Specifying BIG-IP Platform Properties
8. Configuring the Network
9. Configuring Network Time Protocol (NTP) Servers
10. Configuring Domain Name System (DNS) Settings
11. Configuring High Availability Options
12. Archiving the BIG-IP Configuration
13. Leveraging F5 Support Resources and Tools

Lesson 2: Traffic Processing Building Blocks

14. Identifying BIG-IP Traffic Processing Objects
15. Configuring Virtual Servers and Pools
16. Load Balancing Traffic
17. Viewing Module Statistics and Logs
18. Using the Traffic Management Shell (TMSH)
19. Understanding the TMSH Hierarchical Structure
20. Navigating the TMSH Hierarchy
21. Managing BIG-IP Configuration State and Files
22. BIG-IP System Configuration State
23. Loading and Saving the System Configuration
24. Shutting Down and Restarting the BIG-IP System
25. Saving and Replicating Configuration Data (UCS and SCF)

Lesson 3: Using NATs and SNATs

26. Address Translation on the BIG-IP System
27. Mapping IP Addresses with NATs
28. Solving Routing Issues with SNATs
29. Configuring SNAT Auto Map on a Virtual Server
30. Monitoring for and Mitigating Port Exhaustion

Lesson 4: Monitoring Application Health

31. Introducing Monitors
32. Types of Monitors
33. Monitor Interval and Timeout Settings
34. Configuring Monitors
35. Assigning Monitors to Resources
36. Managing Pool, Pool Member, and Node Status
37. Using the Network Map

Lesson 5: Modifying Traffic Behavior with Profiles

38. Introducing Profiles
39. Understanding Profile Types and Dependencies
40. Configuring and Assigning Profiles
41. Introducing SSL Offload and SSL Re-Encryption
42. Managing Object State

Lesson 6: Modifying Traffic Behavior with Persistence

43. Understanding the Need for Persistence

44. Introducing Source Address Affinity Persistence
45. Managing Object State

Lesson 7: Administering the BIG-IP System

46. Configuring Logging
47. Legacy Remote Logging
48. Introducing High Speed Logging (HSL)
49. High-Speed Logging Filters
50. HSL Configuration Objects
51. Configuring High Speed Logging
52. Using TCPDUMP on the BIG-IP System
53. Leveraging the BIG-IP iHealth System
54. Viewing BIG-IP System Statistics
55. Defining User Roles and Administrative Partitions
56. Leveraging vCMP

Lesson 8: Configuring High Availability

57. Introducing Device Service Clustering (DSC)
58. Preparing to Deploy a DSC Configuration
59. Configuring DSC Communication Settings
60. Establishing Device Trust
61. Establishing a Sync-Failover Device Group
62. Synchronizing Configuration Data
63. Exploring Traffic Group Behavior
64. Understanding Failover Managers and Triggers
65. Achieving Stateful Failover with Mirroring