Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Automating BIG-IP with AS3 v.1.7

CODE:	LENGTH:	PRICE:
F5N_BIG-AUTO-AS3	16 Hours (2 days)	£1,850.00

Description

Learn DevOps techniques for the onboarding of and deploying apps to BIG-IP. Start by reviewing the Linux command line and then review basic BIG-IP concepts such as F5 terminology, round robin server pool load balancing, health monitor checks, layer 4 proxying and source address translation both in lecture and in hands-on labs. Next, focus on automation and DevOps concepts such as Infrastructure as Code, the role of orchestration, Source of Truth, atomicity, idempotency and imperative vs. declarative operations and their APIs.
Dive into JSON, the standard scripting notation for DevOps, and investigate programming BIG-IP systems using JSON-based iControl REST. Discover onboarding BIG-IP using iControl REST, both in lecture and hands-on labs.
In both lecture and lab, explore F5's declarative API, AS3, as the application source of truth. Use AS3 to deploy applications to BIG-IP using both curl on the command line and the Postman GUI. Use the F5 declarative onboarding API, DO, for managing the entire onboarding process.

Objectives

- Review Automation and DevOps concepts
- Describe the components of iControl REST calls and how they interact with BIG-IP
- Stand up and configure BIG-IP applications using iControl REST
- Describe the installation and use of AS3 and DO iApp LX components
- Automate the onboarding and configuration of BIG-IP
- Add advanced tools like Postman and Newman to your toolkit

Course Topics

- Review the Linux Command Line
- Review BIG-IP Application Creation
- Discuss Automation and DevOps Concepts
- Configuring BIG-IP with iControl REST
- Automating BIG-IP configuration with Application Services Extension 3 (AS3)
- Automating BIG-IP onboarding with Declarative Onboarding (DO)

Audience

This course is intended for network administrators and operators and DevOps engineers interested in automating tasks on BIG-IP systems in their public and private Clouds as well as in their data center infrastructures.

Prerequisites

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)

General network technology knowledge and experience are recommended before attending any F5 Global Training Services instructor-led course, including OSI model encapsulation, routing and switching, Ethernet and ARP, TCP/IP concepts, IP addressing and subnetting, NAT and private IP addressing, NAT and private IP addressing, default gateway, network firewalls, and LAN vs. WAN.

Students should be familiar with and be able to configure basic BIG-IP elements such as virtual servers, pools, pool members, and nodes, pool monitors, and basic virtual server profiles. In addition, students should be familiar with the basics of the Linux command line, and have solid understanding of Layer 2 Ethernet and ARP networking, Layer 3 and 4 TCP/IP networking, including IP addressing and subnetting, Layer 7 HTTP networking, and HTML.
Finally, nice-to-have knowledge includes familiarity with programming and/or scripting languages, such as JavaScript or NodeJS, Python, or Bash.

Programme

Linux Command Line Review
• Navigating the Linux File System
• Creating and Deleting Files and Directories
• Copying and Moving Files
• Command Line Auto-Completion and Editing
• Tools for Analyzing Test Results and Inspecting Log Files
BIG-IP Application Creation Review
• Understanding Load Balancing Basics
• Configuring Virtual Servers, Pools, Pool Members and Nodes
• Configuring Health Monitors and SSL Profiles
• Understanding the Full Proxy Architecture and Source Address Translation
Automation and DevOps Concepts
• Understanding Infrastructure as Code, NetOps and DevOps
• Differentiating Automation and Orchestration Concepts
• Diving into DevOps Concepts such as Idempotency, Atomicity and Imperative vs Declarative
Programming BIG-IP with iControl REST
• Introducing Basic JavaScript Types
• Introducing JavaScript Object Notation
• Discovering an existing BIG-IP Configuration using iControl REST
• Deploying Apps on BIG-IP using iControl REST
Onboarding BIG-IP with iControl REST
• Onboarding BIG-IP using iControl REST
• Working with JSON Programmatically
Automating BIG-IP with AS3
• Introducing BIG-IP Applications Services Extension 3
• Creating BIG-IP Applications using AS3 with Curl
• Introducing Postman and Postman Tests
• Creating BIG-IP Applications using AS3 with Postman
• Using Newman and the Linux CLI to Create BIG-IP Applications with AS3
Onboarding BIG-IP with DO
• Introducing Declarative Onboarding for BIG-IP
• Remotely Installing the Declarative Onboarding iApp LX
• Onboarding BIG-IP Declaratively

Session Dates

On request. Please Contact Us

Additional Information

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