



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

Arrow ECS, Nidderdale House, Beckwith Knowle, Harrogate, HG3 1SA

Email: educationteam.ecs.uk@arrow.com
Phone: 0870 251 1000



Automating BIG-IP with Ansible v.1.7

CODE:	LENGTH:	PRICE:
F5N_BIG-AUTO	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 of 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.

Explore the alternative data serialization language to JSON, YAML, which is used by Kubernetes and many other applications, before jumping into Ansible. Learn about the Ansible architecture, components, modules and how it uses Python and iControl REST to run on just about any platform. Build trust relationships with BIG-IP systems and backend servers using advanced inventory files. Create sophisticated playbooks that feature fact gathering, conditional tasks, and secure password vaults that are used to onboard, provision, license and deploy HA applications to BIG-IP systems.

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 major components of Ansible and how they work together to configure BIG-IP
- Use flow control elements such as conditionals and looping in Ansible Playbooks
- Onboard and configure BIG-IP applications using Ansible
- Review the Linux Command Line
- Review BIG-IP Application Creation
- Discuss Automation and DevOps Concepts
- Configuring BIG-IP with iControl REST
- Configuring BIG-IP programmatically with Ansible

Course Topics

Audience

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

- YAML Basics
- Introduction to Ansible
- Playbooks and Inventory
- Deploying BIG-IP Applications
- Onboarding BIG-IP Using Ansible
- Licensing, HA and Roles

Course Closeout

- Additional Training and Certification

Session Dates

On request. Please [Contact Us](#)

Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)