Enterprise Computing Solutions - Education Services

# TRAINING OFFERING

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# Automating BIG-IP with Ansible v.1.5

| CODE: | LENGTH: | PRICE: |
|---|---|---|
| F5N_BIG-AUTO | 12 Hours (1.5 days) | €1,595.00 |

## Description

This 2-day course introduces network administrators, operators, and DevOps engineers to the foundational and F5-specific technologies required to automate BIG-IP.
Participants will gain exposure to multiple technologies for a variety of use cases and will have hands-on experience that leave them better prepared to automate the onboarding and configuration of BIG-IP.

**Course Topics**
- 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

## 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

## 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 datacenter infrastructure.

## Prerequisites

- Virtual Servers
- Pools, Pool Members and Nodes
- Pool Monitors

Students should be familiar with and be able to configure basic BIG-IP elements such as:
- Basic Virtual Server Profiles

Students should also be familiar with the basics of the Linux command line.  In addition, the following general technical knowledge should be well understood:

- Layer 2 Ethernet and ARP networking concepts
- Layer 3 and 4 TCP/IP networking concepts, including IP addressing and subnetting
- Layer 7 HTTP networking concepts
- Linux command line and basic Linux commands
- HTML

Finally, "nice-to-have" knowledge includes familiarity with programming and/or scripting languages, such as:
- JavaScript or NodeJS
- Python
- Bash

## Programme

**Chapter 1: 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

• Understanding Load Balancing Basics
• Configuring Virtual Servers, Pools, Pool Members and Nodes
• Configuring Health Monitors and SSL Profiles

Chapter 2: BIG-IP Application Creation Review
• Understanding the Full Proxy Architecture and Source Address Translation

Chapter 3: 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
• 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 using iControl REST

Chapter 4: Programming BIG-IP with iControl REST
• Working with JSON Programmatically
• Introducing YAML
• Establishing an Ansible Trust Relationship
• Creating an Ansible Playbook
• Exploring the Playbook
• Working with the Inventory File
• Using the Command Module
• Gathering Facts for the Playbook
• Deploying Apps on BIG-IP using Ansible
• Deleting a BIG-IP Application
• Onboarding a BIG-IP system using Ansible
• Deploying BIG-IP HA

Chapter 5: Automating BIG-IP with Ansible
• Investigating Ansible Roles

## Session Dates

On request. Please contact us

## Additional Information

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