AKAMAI AUTOMATION AND DEVOPS

Course Overview and Agenda

February 2025

Akamai

Course Overview

The Akamai Automation and DevOps training course demonstrates how to automate Akamai services and products with Akamai-provided developer tools and other external tools. This course enables participants to understand how to integrate Akamai into their existing DevOps workflows. It includes extensive hands-on exercises and demonstrations, and presents developers and administrators with the opportunity to work with Akamai tools and integrations such as the Akamai Terraform Provider, Akamai CLI, PowerShell, etc., to manage Akamai products and services.

Objectives

After completing this course, participants will be able to do the following:

- Identify the various tools and integrations that Akamai provides developers to enable automation and integration into DevOps workflows.
- Provision API clients and generate credentials for authentication and authorization.
- Use the following Akamai tools to automate the management of Akamai delivery properties and security configurations:
    - Akamai Terraform Provider
    - Akamai Command Line Interface (CLI).
- Use the Akamai Terraform Provider to deploy Cloudlets to the Akamai edge.
- Use the Akamai Terraform Provider to deploy EdgeWorkers to the Akamai edge.
- Implement best practices to manage Akamai configurations with Terraform.
- Use the Akamai Test Center CLI and APIs to automate the testing of Akamai configurations.
- Understand how to integrate and manage Akamai as part of a CI/CD pipeline.

Agenda

The Akamai Automation and DevOps curriculum can be delivered either as:

- Classroom training: 2 days (8 hours per day)
- Online training: 3 days (5 ½ hours per day).

The agenda for this training is listed below.

Duration (min)	Module Name & Description
20	**MODULE 1: INTRODUCTION TO AKAMAI DEVELOPER** This module provides a brief introduction to the Akamai Developer ecosystem and the developer tools, integrations, and services that Akamai offers.
60	**MODULE 2: GETTING STARTED WITH AKAMAI APIs** This module highlights how Akamai TechDocs is the single source of truth for everything related to the Akamai Developer ecosystem and how to access Akamai API, CLI, and Terraform Provider documentation. The module also demonstrates how to provision an API Client, generate authentication credentials to make requests to API endpoints, and set up and use Postman. The module concludes with a lab that teaches you how to use tools such as HTTPie, Akamai CLI, Akamai PowerShell, and the Akamai Terraform Provider to make simple API calls. **LAB: USE AKAMAI DEVELOPER TOOLS**
180	**MODULE 3: AKAMAI TERRAFORM PROVIDER** This module discusses the benefits of using Terraform to manage infrastructure as code, describes the different stages of using Terraform, and how to create and manage Akamai configurations as Terraform code. It demonstrates how to use the Akamai Terraform CLI to export your existing Akamai configurations as Terraform code and the Akamai Terraform Provider documentation to create Terraform files to provision and manage delivery properties and security configurations. The two labs in this module allow you to provision your own delivery property and security configuration with the Akamai Terraform Provider, as well as implement geo-blocking with Network Lists. **LAB: CREATE AND MANAGE DELIVERY PROPERTIES WITH AKAMAI TERRAFORM PROVIDER** **LAB: CREATE AND MANAGE SECURITY CONFIGURATIONS WITH AKAMAI TERRAFORM PROVIDER**

75	**MODULE 4A: AKAMAI EDGE APPLICATIONS — CLOUDLETS** (Optional) This module introduces Cloudlets, the different types of Cloudlets and their use cases, and creating Cloudlet policies. The module also demonstrates how to build and manage your Cloudlet policies as code and add your Cloudlet as a behavior to a delivery property. The lab in this module uses the Akamai Terraform Provider to define a Request Control Cloudlet policy to deny GET requests made to a login endpoint and add the policy to a delivery property/configuration. **LAB: CONFIGURE THE REQUEST CONTROL CLOUDLET WITH AKAMAI TERRAFORM PROVIDER**
75	**MODULE 4B: AKAMAI SERVERLESS COMPUTING — EDGEWORKERS + EDGEKV** This module introduces the two serverless computing solutions that Akamai provides, namely EdgeWorkers and EdgeKV, how they work, and their use cases. The module covers the steps to provision EdgeWorkers and EdgeKV and demonstrates the provisioning process with Akamai Terraform Provider. The lab in this module covers creating and deploying an EdgeWorker with the Akamai Terraform Provider to detect the geography from which end-user requests originate and set language preferences on a website accordingly. **LAB: CONFIGURE AN AKAMAI EDGEWORKER WITH AKAMAI TERRAFORM PROVIDER**
60	**MODULE 5: BRINGING IT ALL TOGETHER — TERRAFORM PRACTICES** This module discusses the common best practices to get the most out of Terraform, such as using input variables, locals, creating a *tfvars* file to capture the values of input variables, a remote back end for state management, provisioners, and modules. **LAB: USE A TERRAFORM CONFIGURATION WITH MULTIPLE MODULES**
60	**MODULE 6: TESTING WITH AKAMAI** This module provides an overview of Akamai Testing tools and how to use Akamai Test Center to perform functional and comparative testing. The lab in this module allows you to use the Akamai CLI for Test Center to define a test suite, add test cases to it, run the test suite, and view test results. The lab also lets you run some sample scripts that automate the process of using the Akamai Test Center. **LAB: PERFORM FUNCTIONAL TESTING WITH AKAMAI TEST CENTER CLI & APIs**
90	**MODULE 7: CI/CD FROM ZERO TO HERO ON THE AKAMAI PLATFORM** This module reviews the concepts of continuous integration (CI) and continuous delivery/deployment (CD), the concept of a CI/CD pipeline, and demonstrates how you can build a pipeline from beginning to end, literally. This module also demonstrates how to implement a Git and Jenkins-based CI/CD pipeline to implement common Akamai use cases. **LAB: CONFIGURE A CI/CD PIPELINE WITH JENKINS AND GITEA**

180	**MODULE 8A: AKAMAI CLI** (Optional) This module introduces the Akamai Command-Line Interface (CLI), its installation process, the common commands, and the different CLI packages available. The module covers the Property Manager and Application Security CLIs and how to use them to create and manage delivery properties and security configurations as code. The two labs in this module cover using the Property Manager, Certificate Provisioning System, Purge, and Application Security CLIs. Finally, the module demonstrates a use case for building a custom CLI to bulk-onboard multiple hostnames to the Akamai platform. **LAB: CREATE AND MANAGE DELIVERY PROPERTIES WITH AKAMAI CLI** **LAB: CREATE AND MANAGE SECURITY CONFIGURATIONS WITH AKAMAI CLI**
15	**MODULE 9: SUMMARY** This final module provides key takeaways for the entire course and provides a final opportunity for learners to complete lab work, receive job aids and other materials, and have a class discussion on follow-up questions or concerns.
60	**Survey, Quiz & Certification**


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