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Hashicorp Packer training: Automate image packaging

2 days (14 hours)

Presentation

Dive into the heart of Image Automation with [Hashicorp Packer](#) and master the essential skills needed to create consistent, secure system images.

During our Hashicorp Packer training course, we'll dive into the details of this cutting-edge tool, exploring its key features and best practices for automating the image creation process.

You'll discover how to structure your configurations to generate ready-to-deploy system images, while reinforcing the security of your [cloud infrastructures](#).

We'll be taking an in-depth look at the different aspects of Hashicorp Packer, from initial configuration to CI/CD pipeline integration and image creation. multi-platform.

At the end of this Hashicorp Packer training course, you'll be armed with solid expertise in image automation and ready to optimize the management of your cloud infrastructures.

As with all our training courses, this Hashicorp Packer course will feature the latest version of the tool, [Packer 1.9](#).

Objectives

- Installing and configuring Packer
- Master the basic functions for creating system images
- Explore advanced functions for more complex images
- Integrate Packer seamlessly with the AWS ecosystem

Target audience

- Infrastructure engineer
- System & network administrators
- DevOps

Prerequisites

- Scripting skills (Bash or PowerShell)
- Basic knowledge of AWS

Materials required

- A Linux command-line terminal (Git, Bash, or WSL2 from Windows)
- A recent web browser (Chrome)
- An AWS account (free account available)

Hashicorp Packer training program

Introduction to HashiCorp Packer

- Introducing HashiCorp Packer
 - The importance of image automation
- Benefits of using Packer
- Common Packer scenarios
- Packer installation on different platforms
- Initial Packer configuration
- Creating Vagrant boxes

Fundamental concepts

- Writing Packer HCL vs Json templates
- Understanding Packer builders
- Different types of builders available
- Image source configuration
- Using provisioners to customize images
- Managing variables and configuration files
- Using environment variables

Image creation with Packer

- Image customization with scripts
- Using provisioners to automate configuration
- Using post-processors
- Validation of generated images

- Debugging configurations

Advanced build strategies

- Multi-platform image creation.
- Data sources
- Managing complex variables and default values
- Using builders' templates
- Creating images from scratch
- Caching strategies for faster builds
- Using "source ami" in public clouds

Integration and deployment

- Debug & troubleshooting
- Packer integration in CI/CD pipelines
- Automating builds with triggers
- Integration with cloud platforms (AWS, Azure, GCP)
- Update and image lifecycle management
- Securing generated images
- Deploying images created with Packer
- Scalability and image versioning

Best practices and tips

- Good safety practice when using Packer
- Managing secrets and sensitive information
- Build monitoring and logging
- Handling common errors and performance problems
- Maintenance and cleaning of obsolete images

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.