Updated 04/07/2024

Sign up

Flatcar training

2 days (14 hours)

Presentation

Our Flatcar training course will teach you how to run your containerized applications in a lightweight Linux distribution. Flatcar is a high-performance tool designed to provide a minimal, immutable and self-updating operating system, optimized for containers.

In this lesson, you'll learn how to run Flatcar instances locally, connect to them via SSH and launch the Nginx container on the instance. You will then learn how to provision your instance with Butane and Ignition configurations.

This course will teach you how to deploy your Flatcar instances using Terraform code to manipulate your instances in IaC. We'll also look at the automatic update functions that are crucial in Flatcar.

The training will be presented with the latest version of the tool: Flatcar 3815.2

Objectives

- Configuring your Flatcar instances
- Provisioning instances
- Deploying instances with Terraform

Target audience

- DevOps
- System administrators

Prerequisites

- Basic knowledge of application containers
- Knowledge of Terraform
- Test My Knowledge

Flatcar Training Program

Discover Flatcar

- Run a Flatcar instance locally
- Start the instance and connect to it via SSH
- Launch the Nginx container on the instance

Provisionnemen

- Provision a local instance of Flatcar
- Write the Butane configuration
- Generate Ignition configuration
- Start instance with configuration

Deployment

- Deploy Flatcar instances with IaC (Terraform)
- Handling Terraform code
- Writing Flatcar provisioning with Terraform
- Deploying Flatcar on OpenStack with Terraform

Update

- Automatic update function
- Start an older version of Flatcar
- Provisioning with hands-on-2 ignition
- Check for updates

Extensions

- Taking advantage of systemd-sysext functionality
- Starting a Flatcar instance
- Extract unofficial Podman sysext image
- Merge an image to the system

Companies concerned

This course is aimed at both individuals and companies, large or small,

wishing to train its teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

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.