

## Course duration

- 4 days

## Course Benefits

- Learn to review the server structure, architecture, and usage.
- Learn to gain in-depth knowledge of working with the CLI, it's management model, and the operations it makes available.
- Learn to deploy applications with the CLI and with auto-deployment.
- Learn to configure network interfaces and socket bindings.
- Learn to understand application dependencies, including implicit and automatic dependencies, and how to configure them.
- Learn to work with and configure the ActiveMQ Artemis (formerly HornetQ) messaging subsystem via the XML config and the CLI, including address settings configuration, producer flow control, and security settings.
- Learn to learn about and use RBAC (Role Based Access Control).
- Learn to mask sensitive strings (e.g. database passwords) with the Vault mechanism.
- Learn to set up, work with, and manage server clusters.
- Learn to configure, use, and customize the Infinispan subsystem for replication (HTTP and SFSB) and caching, including as a second-level Hibernate cache.
- Learn to set up and work with server domains.
- Learn to manage domains and application deployments to a domain with the CLI.

## Course Outline

1. JBoss Server - A Quick Overview
  1. JBoss Server Family - JBoss AS, EAP, WildFly
  2. Server structure and layout
  3. Starting/Stopping
2. Architecture Review
  1. Modular Classloading / JBoss Modules, Application Dependencies
  2. Profiles and Subsystems
  3. Exploring the XML Config Schema Files
3. Management Tools
  1. CLI Overview/Review, Management Tree Structure, Addressing, Operations
  2. CLI Command Files and Scripting
  3. Using Properties in Command Files
  4. Exploring the Management Model
  5. Management (Web) Console Review
4. Interface and Socket Bindings
  1. Review of Interface/Socket Binding Configuration

2. Working with Socket Bindings and Socket Binding Groups
  3. Bind Addresses and Port Offsets
5. Application Deployment
  1. CLI Deployment
  2. Auto Deployment Review and Management with the CLI
  3. Deployment Classloading
  4. Classloading Precedence - Implicit, Automatic, Explicit
  5. Controlling Classloading - jboss-deployment-structure.xml
6. Messaging
  1. ActiveMQ Artemis Overview and Configuration
  2. Configuring Destinations
  3. Configuration of Address Setting (for Dead Letter, Redelivery, and Security)
  4. Paging Configuration and Producer Flow Control
  5. Management via the CLI
7. Security
  1. Security Review - Security Realms and Security Domains
  2. Role Based Access Control (RBAC)
  3. Encryption Overview
  4. Masking Sensitive Strings Using the Vault
8. Clustering and Replication with Infinispan
  1. Clustering Review / Setting up a Cluster
  2. Infinispan and Replication Overview
  3. Infinispan Subsystem Configuration
  4. Customizing Replication
  5. Infinispan and JPA - Using Infinispan as a second level cache
9. Configuring and Managing Domains
  1. Domain Mode Review - Structure and Configuration
  2. Managing Controllers and Servers (Console and CLI)
  3. Managing Deployments
  4. Advanced Topics
    1. Operating a Domain without a DC
    2. Handling Controller Restarts after Config Changes
    3. Running Controllers in ADMIN\_ONLY Mode

## Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.