

**Advanced JBoss EAP / WildFly Application Server Administration**

**Course Number:** JBS-125
**Duration:** 4 days

**Overview**

This Advanced JBoss® EAP / WildFly Application Server Administration training course gives attendees an in-depth tour of the available management tools, including how to use and script the command line interface (CLI). In addition, participants learn how to work with the ActiveMQ Artemis messaging subsystem (formerly HornetQ), RBAC (Role-Based Access Control), domains, and much more.

Note: This course is taught using the latest version unless an earlier version is requested.

**Prerequisites**

Students must have some experience with Web/Application Servers and Databases or have taken Accelebrate's [Introduction to JBoss EAP / WildFly Application Server Administration course](file:////training/jboss-wildfly-introduction).

**Materials**

All WildFly training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* Windows, Linux, macOS, or Solaris with at least 8 GB RAM
* JDK 8 or later
* WildFly
* Line numbering/color coding text editor of your choice
* Related lab files that Accelebrate would provide
* Upon request, a complete class environment can be provided as a Linux virtual machine or a remote lab

**Objectives**

* Review the server structure, architecture, and usage
* Gain in-depth knowledge of working with the CLI, its management model, and the operations it makes available
* Deploy applications with the CLI and via auto-deployment
* Configure network interfaces and socket bindings
* Understand application dependencies, including implicit and automatic dependencies, and how to configure them
* 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 about and use RBAC (Role-Based Access Control)
* Mask sensitive strings (e.g., database passwords) with the Vault
* Spin up, configure, and manage server clusters
* Configure, use, and customize the Infinispan subsystem for replication (HTTP and SFSB) and caching, including as a second-level Hibernate cache
* Set up and work with server domains
* Manage domains and application deployments to a domain with the CLI

**Outline**

* Introduction
* JBoss Server - A Quick Overview
	+ JBoss Server Family - JBoss AS, EAP, WildFly
	+ Server structure and layout
	+ Starting/Stopping
* Architecture Review
	+ Modular Classloading / JBoss Modules, Application Dependencies
	+ Profiles and Subsystems
	+ Exploring the XML Config Schema Files
* Management Tools
	+ CLI Overview/Review, Management Tree Structure, Addressing, Operations
	+ CLI Command Files and Scripting
	+ Using Properties in Command Files
	+ Exploring the Management Model
	+ Management (Web) Console Review
* Interface and Socket Bindings
	+ Review of Interface/Socket Binding Configuration
	+ Working with Socket Bindings and Socket Binding Groups
	+ Bind Addresses and Port Offsets
* Application Deployment
	+ CLI Deployment
	+ Auto Deployment Review and Management with the CLI
	+ Deployment Classloading
	+ Classloading Precedence - Implicit, Automatic, Explicit
	+ Controlling Classloading - jboss-deployment-structure.xml
* Messaging
	+ ActiveMQ Artemis Overview and Configuration
	+ Configuring Destinations
	+ Configuration of Address Setting (for Dead Letter, Redelivery, and Security
	+ Paging Configuration and Producer Flow Control
	+ Management via the CLI
* Security
	+ Security Review - Security Realms and Security Domains
	+ Role Based Access Control (RBAC)
	+ Encryption Overview
	+ Masking Sensitive Strings Using the Vault
* Clustering and Replication with Infinispan
	+ Clustering Review / Setting up a Cluster
	+ Infinispan and Replication Overview
	+ Infinispan Subsystem Configuration
	+ Customizing Replication
	+ Infinispan and JPA - Using Infinispan as a second level cache
* Configuring and Managing Domains
	+ Domain Mode Review - Structure and Configuration
	+ Managing Controllers and Servers (Console and CLI)
	+ Managing Deployments
	+ Advanced Topics
		- Operating a Domain without a DC
		- Handling Controller Restarts after Config Changes
		- Running Controllers in ADMIN\_ONLY Mode
* Conclusion