**JBOSS 8.x version**

**Duration: 5 Days**

**User23**

**Prerequisite:** Basic knowledge of Java and application servers.

**Lab Setup:**

* Ensure that training participants have JBOSS 8.x, JDK, and necessary monitoring tools installed.
* Provide a sample application for hands-on practice throughout the training sessions.

**Day 1: JBOSS Fundamentals and Installation**

* **Morning Session:**
  1. JBOSS Introduction
  2. JBOSS Installation
  3. Differences Between JBOSS 8, JDK, and Earlier Versions (compatibility issues)
* **Afternoon Session:**
  1. Standalone Mode Architecture and Configuration, Configuration Files Overview
  2. Domain Mode Architecture and Configuration, Configuration Files Overview

**Day 2: Profiles, Subsystems, and DataSource Configuration**

* **Morning Session:**
  1. Different Profiles: Full, Full-HA, Load-Balanced and their Differences
  2. JBOSS Subsystems:
     + Logging Subsystem (log patterns, log handler, enable debugging)
     + DataSource Configuration
     + Resource Adapter
* **Afternoon Session:**
  1. JMS Configuration (Local MQ/Remote MQ)
  2. JBOSS Console Walkthrough

**Day 3: Deployment and Server Management**

* **Morning Session:**
  1. Deployment in Standalone and Domain Mode:
     + Deployment Structure and Location of Expanded Files Post JVM Startup
  2. Profile and Server Group Concepts:
     + Server Group JVM options, properties, and heap settings
     + JVM-specific custom properties
* **Afternoon Session:**
  1. Port Assignment
  2. Apache/HTTP Integration with JBOSS:
     + MOD\_PROXY, MOD\_AJP, and MOD\_CLUSTER Concepts

**Day 4: CLI, Security, and Monitoring**

* **Morning Session:**
  1. JBOSS Modules
  2. JBOSS CLI Introduction with Hands-On:
     + Stop/Start (JVM, HostController, ServerGroup)
     + CLI Options: Configuration updates/read/removal operations
     + Datasource Test Connection
     + Deploy/Undeploy Applications
* **Afternoon Session:**
  1. JBOSS Security - SSL Concepts:
     + KeyStore/TrustStore Configuration
     + Elytron and Vault Configuration
  2. Memory Concepts - Understanding GC Policies

**Day 5: Advanced Topics and Migration**

* **Morning Session:**
  1. Authentication and Authorization Concepts (RBAC):
     + Roles, User, and Group Creation
  2. Heap/Thread Dump Collection and Troubleshooting
* **Afternoon Session:**
  1. Integration of JBOSS with Monitoring Tools (AppDynamics/DynaTrace) – Agent Specific
  2. JBOSS 7 to 8 Migration: Differences in Subsystems and Compatible MQ Adapters/DB Drivers
  3. WebSphere to JBOSS Migrations – Major Config Changes Required in JBOSS