

## WAS for z/OS Liberty Profile Information

**Length:** 16.0 Hours  
**Ref:** ESB4G  
**Delivery method:** Classroom  
**Price:** EUR

### Overview

Liberty profile is a new application server run-time model that is available on all platforms supported by the WebSphere Application Server V8.5 product.

The IBM WebSphere Application Server "Liberty Profile" is a significant new approach to application serving. The Liberty Profile is designed to be composable, lightweight, dynamic and fast: Liberty is small, lightweight, highly composable, fast-to-start, dynamic application server runtime environment, with simple configuration. It can be deployed and started in seconds so it's an ideal Java runtime for the cloud.

Liberty for z/OS provides the same features as Liberty on other platforms along with independently enabled extensions that exploit z/OS facilities such as Workload Manager (WLM), Resource Recovery Services (RRS) and System Access Facility (SAF), which provides close integration with the z/OS operating system.

WebSphere Liberty for z/OS provides the base infrastructure for z/OS Connect and WOLA which enables z/OS systems such as CICS and IMS to better and more easily participate in today's Mobile computing environment.

This course introduces the WebSphere Application Server Liberty Profile on z/OS and covers installation and configuration. It describes how to install and administer a Liberty profile server as a started task, along with command-line scripts. The course also explains how to manage and monitor a Liberty for z/OS server environment.

### Public

This intermediate course is for experienced data professionals such as z/OS system programmers who are responsible for the installation and customization of WAS V8.5 liberty for z/OS, along with Information Technology (IT) professionals responsible for the deployment applications into WAS V8.5 liberty on z/OS.

### Prerequisites

You should have experience with the installation and customization of z/OS and its subsystems, including WLM, UNIX Services, **and** the Security Server (Resource Access Control Facility (RACF)), **or** equivalent product.

## Objective

- Describe the characteristics and architecture of the Liberty profile
- Install and configure the z/OS Liberty profile
- Describe Liberty profile features that are specific to z/OS
- Deploy applications to a server
- Create and configure z/OS Liberty profile servers
- Deploy applications by adding configuration elements and by using a monitored directory
- Configure data sources and application security
- Use tools to monitor, tune, and troubleshoot Liberty profile resources
- Use the Administration Center to manage Liberty servers

## Topics

### Unit 1. Overview

- Describe the Liberty profile
- Describe Liberty profile runtime architecture
- Describe the functions provided by Liberty profile
- Describe Liberty product packaging
- Describe Liberty feature configuration
- Describe the different options for using WebSphere Liberty in the Cloud
- Describe the platform specific features of Liberty for z/OS
- Describe the reasons to migrate your applications to Liberty

### UNIT 2. Installing WebSphere V8.5.5 Liberty on z/OS

- Identify key tasks for WebSphere Liberty for z/OS implementation
- Explain the installation methods
- Explain the role of the Installation Manager
- Design a WebSphere Liberty for z/OS configuration for initial install
- Execute the WebSphere Liberty for z/OS installation jobs
- Configure the Java Runtime
- Update the Liberty profile runtime code

### UNIT 3. Working with Liberty profile servers

- Describe the architecture of WebSphere Liberty for z/OS servers
- Set up the Liberty profile
- Create the Liberty profile server
- Start the server
- Start a Liberty Profile server from the UNIX command line

- Start the server and Angel process as z/OS started task
- Work with the server.xml file
- Add new configuration options
- Deploy an application
- Configure dynamic application updates
- Describe the z/OS Extensions to the Liberty Profile

#### **UNIT 4. Administration and management**

- Configure and manage a Liberty profile runtime environment.
- Deploying an application
  - by adding configuration elements
  - by using a monitored directory
- Use tools to monitor, tune, and troubleshoot Liberty profile resources
- Use the monitor feature, monitor the server status
- Use the Administration Center to manage Liberty servers
- Use jConsole
- Monitor the Liberty profile runtime remotely using a REST connector
- Implement multi-server Liberty deployments
- Describe scalability and failover options of Liberty server
- Setting up a Liberty collective
- configure a Liberty collective consisting of a controller and a member.
- add a new member and set up a Liberty cluster

#### **UNIT 5. Security**

- Enable Liberty security services
- Authentication
- Authorization
- SSL
- Configure the basic security setup
- Implement Liberty administrative security
- Enable z/OS authorized services on the Liberty profile for z/OS
- Configure SAF (RACF) Security
- Configure SAF Authorization
- Configure SAF authentication
- Enable SSL using z/OS SAF Keyrings
- Implement z/OS System Security Access Domain
- Configure data sources and application security
- Configure authentication aliases for the Liberty profile.
- Enable sync to OS thread z/OS security

