

Training: IBM WebSphere for z/OS Version Implementation



TRAINING GOALS:

WebSphere Application Server (WAS) Version 8.5 (V8) for z/OS provides a Java2 Enterprise Edition (J2EE) runtime environment for Enterprise JavaBeans (EJB), along with servlets and JavaServer Pages (JSP) in web applications.

WAS V8 extends the platform established in WebSphere for z/OS V7, bringing new functionality for application management, and new flexible management and administration options.

Learn how to install and customize WebSphere V8.5 for z/OS, and how to deploy EJB applications and web applications. Reinforce the concepts you learn in lectures with extensive hands-on laboratory exercises.

Note: This course does not address Java application development for z/OS, and it does not teach the use of programming tools such as IBM Rational Application Developer V8.

- Understand the basics of object-oriented applications, EJBs and the J2EE standard runtime environment
- Prepare the base z/OS environment, including all system prerequisites
- Plan for and configure the WAS V8.5 runtime environment using the supplied WebSphere Customization Tools (WCT) workstation application
- Design and implement a complete server security scheme for WAS V8.5 on your z/OS system
- Customize your WAS V8.5 runtime on z/OS
- Set up and run the Installation Verification Test (IVT)
- Deploy an EJB application and a web application into your new WAS V8.5 runtime using the systems management administrative functions
- Configure and manage network deployment, including a deployment manager and node agents
- Configure web-based topologies for WAS V8.5 using the IBM HTTP server on z/OS together with the WebSphere plug-in
- Install and configure an the Apache-based web server on z/OS to host the WebSphere for z/OS plug-in
- Configure and use a web server node in WebSphere to assist managing the web server plug-in file
- Create a cluster by cloning your first application server
- See how the plug-in can perform load balancing and achieve high availability
- Create a proxy server, and drive your applications through this proxy server

- Define a JDBC driver and data source and deploy a sample application to connect to a DB2 for z/OS subsystem through the UDB universal driver type 4
- Describe the main components and infrastructure of the WebSphere for z/OS Java messaging run time environment
- Plan for the monitoring of performance in your new WAS V8.5 runtime
- Plan for the modification of the installation security configuration necessary to support J2EE application security
- Set up and configure a Liberty profile server, then deploy an application

This advanced course is for experienced z/OS system programmers responsible for the installation and customization of WAS V8, along with Information Technology (IT) professionals responsible for the deployment of EJB and web applications into WAS V8 on z/OS.

Teams of two or three individuals from an enterprise are recommended to attend. Teams should include the z/OS system programmer responsible for the installation of WAS V8, an application assembler responsible for deploying EJB and web applications, and possibly a WAS specialist. The range of skills needed for deploying WebSphere eBusiness applications is such that it is rare for one IT professional to have expertise in all areas of WebSphere.

CONSPECT:

Day 1

- Welcome
- Unit 1: Introduction to WebSphere for z/OS V8
- Unit 2: Installing the WebSphere V8 stand-alone server (Part 1)

Day 2

- Unit 2: Installing the WebSphere V8 stand-alone server (Part 2)
- Lab 1: Installing the stand-alone server

Day 3

- Unit 3: Deploying applications with WebSphere V8 administration tool
- Lab 2: Administration of WebSphere V8 servers and applications Unit 4: The WebSphere V8 web container
- Lab 3: Installing the WebSphere for z/OS V8 HTTP server plug-in

Day 4

- Unit 5: Network deployment
- Unit 6: Assembling and deploying a J2EE application Lab 4: Installing the network deployment

environment Lab 5: (Optional) WebSphere connectors: JDBC lab Lab 6: (Optional): WebSphere proxy server

- Unit 7: WebSphere V8 security (Part 1)

Day 5

- Unit 7: WebSphere V8 security (Part 2)
- Unit 8: Accessing data: Connectors and Java messaging on WebSphere Unit 9: Liberty Profile, zAAPs, WLM and performance
- Lab 7: (Optional): WebSphere Liberty Profile

REQUIREMENTS:

You should have:

- Experience with the installation **and** customization of z/OS and its subsystems, including WLM, TCP/IP, UNIX Services, **and** the Security Server (Resource Access Control Facility (RACF)), **or** equivalent product.

This course, just as the WAS V8 product does, assumes that the initial z/OS infrastructure basics have already been implemented, including WLM Goal Mode, Resource Recovery Services (RRS), **and** the System Logger. The basic implementation of these z/OS subsystems **or** functions are not covered in this course. Individuals who need training in the implementation of the prerequisite subsystems **and** functions should consider completing other appropriate courses in the curriculum prior to attending this course.

Difficulty level

