

WebSphere Portal V6 Administration and Deployment

Duration: 5 days

Course Description

This course teaches WebSphere Portal Server v6 installation, configuration, performance tuning as well as administration. Portal administration involves, creating pages, installing portlets, configuring security and other day-to-day operations.

You Can Learn to:

- Resolve most common problems, Perform basic performance tuning
- Create multiple virtual portal, Use Web Content Management to maintain the web site, Create a customized look and feel, Install new portlet application
- Add portlets to pages and change page layout, Configure security, Use LDAP for security
- Plan for a portal installation, Install portal, including silent installation
- Migrate databases to DB2 or Oracle

Who Needs to Attend:

This is a course for administrators who are responsible for installing and maintaining a WebSphere Portal Server based web site. Prior experience with WebSphere Application Server administration is definitely helpful but not mandatory.

Prerequisites:

Basic understanding of WebSphere Application Server v5 administration.

Course Labs

Lab1	Installing WebSphere Portal Server
Lab2	Basic Portal Administration
Lab3	Portal Basics
Lab4	Installing a Portlet
Lab5	Installing Themes and Skins
Lab6	Web Portlets
Lab7	Using the Document Manager
Lab8	Portal Search
Lab9	Portal Search
Lab10	Portal Security
Lab11	Configuring the Credential Vault
Lab12	Web Content Management (WCM)
Lab13	Basic WCM Security
Lab14	Using xmlaccess
Lab15	Transferring Data
Lab16	Configuring LDAP
Lab17	Troubleshooting
Lab16	Virtual Portal

Course Content

1. Introduction to the WebSphere Portal Server

- What is a Portal , Benefits of Portal Sites, General Portal Architecture
- The Major Components of Horizontal Portals, WebSphere Portal Goals, WebSphere Portal Components
- WebSphere Portal Accessibility and Packaging, A Typical Network Architecture for WebSphere Portal
- WebSphere Portal Server Architecture, Portal Container , Portal Engine, Page Aggregation Modules
- Portlet, WebSphere Portal Built-in Portlets, WebSphere Portlet Content Publishing (WPCP)
- Portal Document Manager (PDM), Search Engine

2. WebSphere Application Server Overview

- Application Server, Base vs. Network Deployment
- Node, Cell, Cluster, Web Container, Configuration Repository
- Web Request Processing, Plugin Configuration, Virtual Host
- Coexistence Scenarios, Common Topologies, All in One
- Vertical Scaling, Server Separation, Multi-tier, Horizontal Scaling
- J2EE Modules, Web Module, EJB Modules, Enterprise Application Modules

3. Basic Administration

- Starting Portal Server, Accessing The Home Page, The Portal Home
- The Portal Admin Page, Portlets, Portlet Catalog, Administrative Portlets
- Utility Portlets, Application Portlets, Stopping Portal Server
- Getting Server Status, Looking At Log Files, SystemOut.log

4. Installing WebSphere Portal Server

- Installing WPS, WPS Components, Optional Component: Database, LDAP Server, Process Server, HTTP Server, Installation Architectures
- Development Environment, Functional Testing, Integration Testing
- Production Environment, Clustering Considerations, Hardware Requirements
- Software Requirements, Supported Databases, Supported LDAP Servers
- Supported Web Servers, Preparing The OS, Installation Source

5. Portlet Administration

- Portlet Instance Types, Portlet Instance Types (cont.)
- Portlet Applications and Concrete, Modes, Window States, API, Deployment Descriptors, portlet.xml (IBM API), portlet.xml JSR-168
- Relationship between web.xml and portlet.xml, How is a Portlet Web Module Installed?
- Adding A Portlet To A Page, Configuring A Portlet, Copying A Portlet Application
- Copy A Portlet, Removing A Portlet From A Page, Uninstalling A Portlet Application

6. Portal Page Hierarchy

- Elements of a Portal Site, Screen, The Home Screen, Screen, Page and Label
- Page/Label Hierarchy, URL, Theme, Skin, Configuring Anchors
- Creating Pages and Labels, Setting Page Properties, Layout Of A Page
- Page Locking, Private Page, Adding Portlets To A Page, Configuring Anchors

7. Business Integration

- Business Integration, Portlet Templates, CSV Portlet Template

- HTML Portlet Template, JSP and Servlet Portlet Template
- Importing Content From External Sites, Web Page Portlet
- Web Clipping Portlet - Clipping Options, Clipping Type, HTML Clipping, RSS Portlet, Third Party Portlets

8. Customizing the Look and Feel

- Customization Basics and Technique
- Theme Basics, Skins And Layouts

9. Document Manager

- What is Portal Document Manager (PDM)?
- Productivity Components, Creating A Document Library, Versioning
- Configuring the PDM Portlet, Document library Management
- PDM Operations, Access Control, Document Search, Approval Workflow

10. Search Engine

- Key Features, Taxonomy and Categorization, Summarization and Stemmer Support
- Administrator Tasks, Administering Portal Search
- Search Engine Organization, Creating Document Collection
- Add A Content Source: General, Advanced, Scheduling, Filters, Security
- Crawl The Source, Collection Status, Search Center Portlet, Using the Search Portlet

11. Security

- Authentication, Portal User Registry
- Alternate Security Registries, LookAside Enabling , ConfigWizard
- Alternate Database, Enabling Security with LDAP, Single Sign On (SSO)
- Authorization, Roles, Resources, Managing Users and Groups, Setting Resource Permissions
- Enabling SSL, Credential Vault, Slot Scope, Vault Administration

12. Composite Applications

- What Is A Composite Application?, Benefits Of Composite Applications
- Composite Application Design and Use, Creating, Configuring, Editing A Template
- Protecting Applications and Templates, Defining Roles, Roles Portlet, Assign Application Members

13. Web Content Management Basics

- Key Features, Main Components of WCM, Enabling WCM
- Accessing and Using WCM Tools, Authoring Template
- Presentation Template' Corporate News,
- Presentation Template XML Markup, Site and Site Area
- Security and Workflow of a Content

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14. WCM Security and Workflow

- Common Security Requirements, Where is Security Configured?
- Super User Access to WCM , Setting Library Access, Structure Designers
- Granting Access for a Component, Authors, Readers
- Creating Actions, Creating Stages, Creating a Workflow

15. Portal Configuration

- Global Settings, Portal Configuration Services
- The WAS Admin Console, Changing A Parameter
- Configuring Various Services, Credential Vault Service
- External Access Control Service, Auditing Service, Enabling Auditing Service
- Persistent Session State, Persistent Session State Options
- Portlet Filters, HTTP Proxy, URL Mapping, URL Mapping Portlet

16. Configuration Management

- Configuration Utilities, wpsconfig Utility, ANT Script File
- How wpsconfig Uses ANT?, What Can You Do With wpsconfig? , ConfigWizard
- Transfer Database, Database Domains, Transferring To A Database
- Introduction and Running xmlaccess, Basic Syntax
- XML Input Structure, Detail XML script reference
- Portal Resources represented in XML, Looking up objects, Guidelines
- Portal Scripting Interface, JAACL, JAACL Grammar
- Script Beans, - \$Portal, - \$Content, - \$Layout, - \$Portlet, - \$Look

17. Problem Determination

- Problem Determination, Types of Problems, Problem Isolation
- Steps to Follow, HTTP Server Access Log, HTTP Server Error Log
- HTTP Server Start Up Error, WebSphere Specific Notes
- Tools for Resolving WebSphere Problems
- Admin Console Messages, Configuration Problems, Runtime Messages
- Message Details, Important Log Files, Log Types, Log Detail Levels
- Configuring Log Files, Viewing Logs, Log File Format, Configuring Tracing
- Reading Java Exceptions, dumpNameSpace Tool, Debugging
- IBM Tools Problem With Installation, Application Server Does Not Start
- 404 File Not Found, 500 Internal Server Error, Cannot Find Server or DNS Error
- Virtual Host Not Found , JSP Compilation Problem, Class Not Found Error
- JNDI Name Not Found, High CPU Usage, Application Server Hanging
- Portal Server Logs, Portal Server Tracing

18. Portal Server Clustering

- What is Clustering, Sample Topology, Basic Steps, Install Network Deployment
- Install/Federate Primary Node, Federating Primary Node, Create The Cluster
- Install Additional Nodes, Add Additional Members: Horizontal
- Add Additional Members: Vertical, Enable Security, Generate plugin-cfg.xml
- Start and Validate the Cluster, Installing a Portlet Web Module
- Deploying Themes and Skins, Deploying Themes and Skins, Configuring Dynamic Cache

19. Performance Tuning WebSphere Portal Server

- Basic Concepts, WebSphere Tuning, JVM Heap Tuning, Database Tuning
- Topas, Advanced topas Use, svmon, Generating svmon Reports
- The monitor Tool, Network Buffer Tuning
- Network Dropped Packets Resolution , Network Statistics Report
- TCP/UDP Buffer Tuning, System Activity Report, Disk I/O Report
- Reduce IO Bottleneck, Using filemon, Using vmstat, Tuning VMM Policy
- The vmstat, mpstat, iostat, netstat Commands
- Increasing the Connection Backlog, Minimize Packet Fragmentation
- Reduce Socket Overhead, Recover from Browser Disconnects
- Kernel Tuning, Performance Tips

20. ReleaseBuilder

- What is ReleaseBuilder?, High Level Concepts, Preparing a Staging Server
- Making a Release in Staging, Exporting Shared Configurations, Computing the Differences
- Applying Changes in Production, Caveats

21. Virtual Portals

- What are Virtual Portals?, Characteristics of virtual portals, Virtual Portals,
- Creating Virtual Portals, Pre-configuring Virtual Portals, Virtual Portals - Actions