

WebSphere Application Server installation



Unit objectives

After completing this unit, you should be able to:

- Describe the installation process for WebSphere Application Server
- Verify the installation of WebSphere Application Server
- Describe WebSphere profiles
- Describe the directories and configuration files for WebSphere Application Server
- Describe how to use configuration commands
- Describe how to use backup and restore configuration utilities

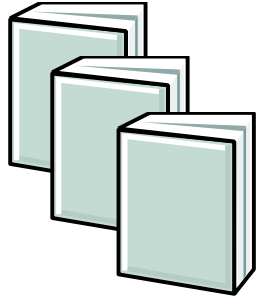
Topics

- Installation overview
- Hardware and software requirements
- Installing WebSphere Application Server
- Working with profiles
- Verifying an installation
- Post installation tasks

Installation overview

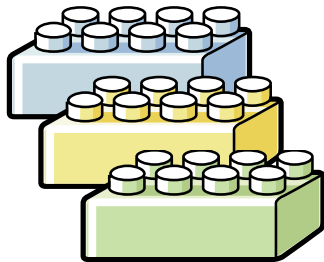


Preinstallation tasks



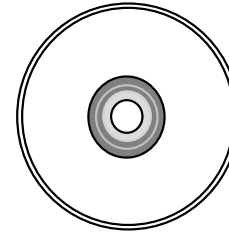
Read the documentation

- WebSphere Information Center platform-specific tips for installing and migrating
- Install readme file



Confirm hardware and software

- Obtain necessary products and maintenance
- Check WebSphere website for any maintenance



Installation media

- DVD media
- Downloaded repository
- Passport Advantage



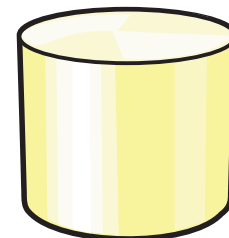
TCP/IP networking

- Host name of node is not to be in DNS or local hosts file
- Host name of node is not to remain fixed
- DHCP not supported



User ID

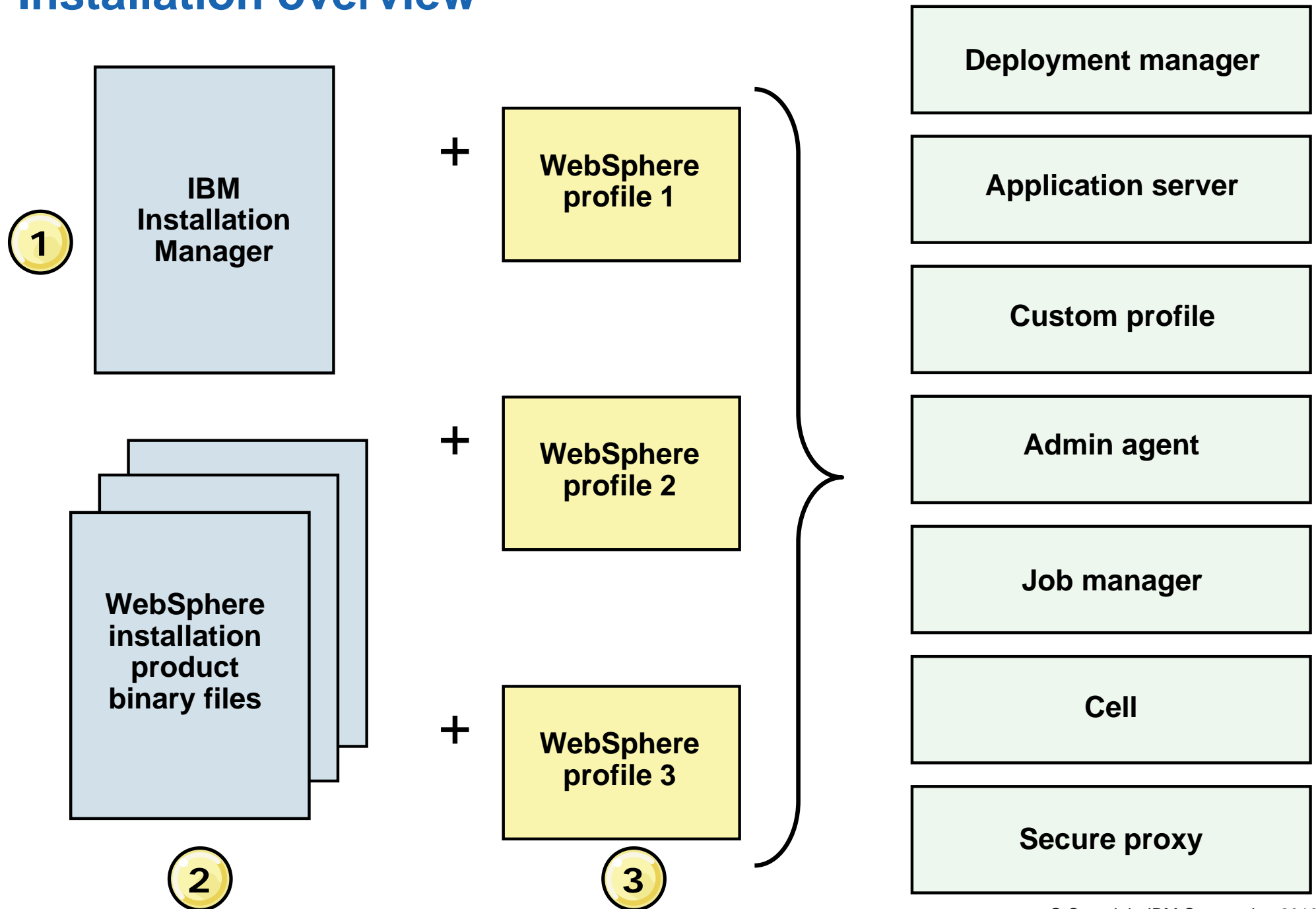
- Create and verify user ID for starting services
- Verify user ID for disk read and write access



File system and memory

- Enough space is available
- Enough memory is available

Installation overview



Installing WebSphere Application Server

- Installation options:
 - Use the launchpad
 - Use the Installation Manager GUI (without the launchpad)
 - Use a response file `install_response_file.xml` to install silently

- IBM Installation Manager GUI flow:
 - Install IBM Installation Manager
 - Install IBM WebSphere Application Server Network Deployment
 - Modify (add or remove) optional features
 - Uninstall IBM WebSphere Application Server Network Deployment

IBM WebSphere Application Server product packages

- IBM WebSphere Application Server V8.5.5 has multiple product offering packages
 - Including Network Deployment, Base, Express, and HTTP Server
- These product packages are packaged in the product DVD media and also available in IBM Passport Advantage site
- IBM Installation Manager V1.6.2 or later is required to install IBM WebSphere Application Server V8.5.5
- Same product offering package can be used to install on any supported distributed platforms

Hardware and software requirements



Hardware requirements

- Requirements vary by platform and your intended workload
- For the latest requirements, check:
 - <http://www-01.ibm.com/support/docview.wss?uid=swg27038218>

Software requirements: Operating systems

- Supported operating systems include:
 - Windows
 - AIX
 - Sun Solaris
 - HP-UX
 - Linux/Intel, Linux/PowerPC, Linux for zSeries
 - RHEL, RHEL Server, SUSE Linux Enterprise Server
 - IBM i
 - IBM z/OS

Software requirements: Web servers and database servers


- Supported web servers include:
 - Apache
 - IBM HTTP Server
 - Internet information services
 - Sun Java System web server
 - Lotus Domino
- Supported database servers include:
 - IBM DB2
 - Apache Derby
 - Oracle
 - Sybase
 - Microsoft SQL
 - Informix
 - IMS

Installing WebSphere Application Server





IBM Installation Manager terminology

- Package
 - Software product that Installation Manager can install
 - `com.ibm.websphere.ND.v85_8.5.5.20130514_1044`

package name package version
- Package group
- Repository
 - Local directory or remote server location for package files
- Shared resources
 - Files and plug-ins that packages share

Repositories

Preferences

type filter text

Repositories

Repositories:

Location	Connection
<input checked="" type="checkbox"/> /usr/IBM-repositories/WAS85/repository.config	? [icon]
<input checked="" type="checkbox"/> /usr/IBM-repositories/WAS85_Opt/repository.config	[icon]

Add Repository

Add a repository

Specify a repository and add to the repository preference list.

Repository:

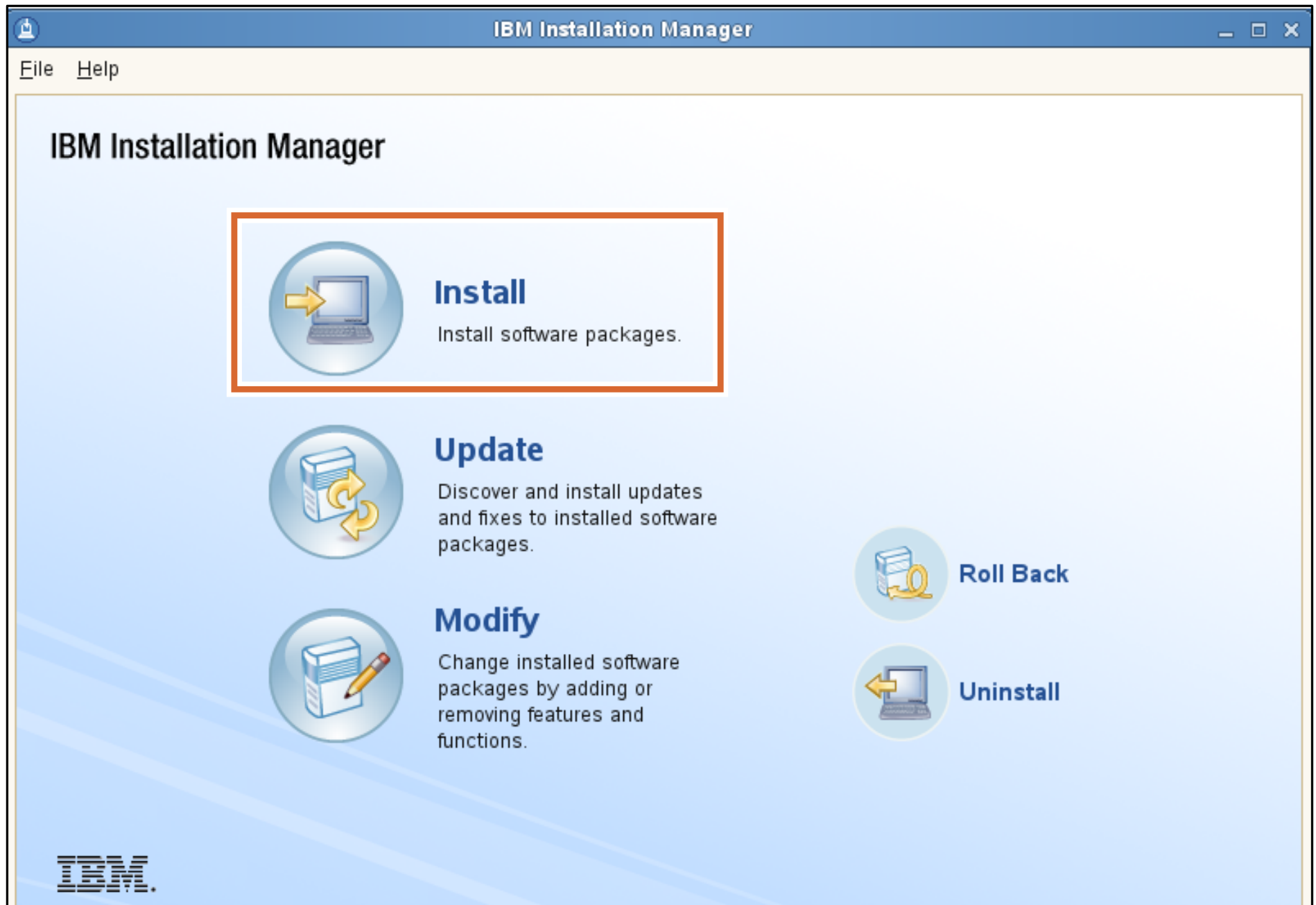
/usr/IBM-repositories/WAS85_Opt/repository.config

1

Buttons: Add Repository..., Edit Repository..., Remove Repository, Move Up, Move Down, Clear Credentials, Test Connections, Cancel, OK

- Add the repository that contains the installation packages

Installation GUI



Packages

Install Packages

Select packages to install:

Installation Packages	Status	Vendor	License Key Type
<div> <input checked="" type="checkbox"/> IBM WebSphere Application Server Network Deployment </div> <div> <input checked="" type="checkbox"/> Version 8.5.5.0 </div>	Will be installed	IBM	

☐ Show all versions

Check for Other Versions, Fixes, and Extensions

Details

IBM WebSphere Application Server Network Deployment 8.5.5.0

IBM WebSphere Application Server Network Deployment is a production-ready Java Platform, Enterprise Edition (Java EE) compliant application server for the deployment of enterprise web services solutions for dynamic e-business. It is the next level in application serving beyond the WebSphere Application Server base edition because it provides advanced web services and clustering capabilities. [More info...](#)

- Repository: /usr/IBM-repositories/WAS855

?

< Back

Next >

Install

Cancel

Shared resources directory

Install Packages

Select a location for the shared resources directory.

Install

Licenses

Location

Features

Summary

When you install packages, files are stored in two locations:



- 1) The shared resources directory - resources that can be shared by multiple packages.
- 2) The installation directory - any resources that are unique to the package that you are installing.

Important: You can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best results select the drive with the most available space because it must have adequate space for the shared resources of future packages.

Shared Resources Directory:

Browse

Disk Space Information

Volume	Available Space
/	21.72 GB

Package group and installation directory

Install Packages

A package group is a location that contains one or more packages. Some compatible packages can be installed into a common package group and will share a common user interface. Select an existing package group, or create a new one.

Install

Licenses

Location

Features

Summary

☐ Use the existing package group

☒ Create a new package group

Package Group Name	Installation Directory
IBM WebSphere Application Server V8.5	/opt/IBM/WebSphere/AppServer

Package Group Name: IBM WebSphere Application Server V8.5

Installation Directory: /opt/IBM/WebSphere/AppServer

Browse...

Details

Shared Resources Directory: /opt/IBM/IMShared

Disk Space Information

Volume	Available Space
/	21.72 GB

Features: Translations

Install Packages

Select the translations to install.

Install
Licenses
Location
Features
Summary

Translations

<input checked="" type="checkbox"/> English	<input type="checkbox"/> Brazilian Portuguese	<input type="checkbox"/> Czech	<input type="checkbox"/> French	<input type="checkbox"/> German
<input type="checkbox"/> Hungarian	<input type="checkbox"/> Italian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Korean	<input type="checkbox"/> Polish
<input type="checkbox"/> Romanian	<input type="checkbox"/> Russian	<input type="checkbox"/> Simplified Chinese	<input type="checkbox"/> Spanish	<input type="checkbox"/> Traditional Chinese

Features: Install packages

Install Packages

Select the features to install.

Install

Licenses

Location

Features

Summary

Features

IBM WebSphere Application Server Network Deployment 8.5.5.0

WebSphere Application Server Full Profile

☒ EJBDeploy tool for pre-EJB 3.0 modules

☒ Stand-alone thin clients, resource adapters and embeddable containers

☒ Stand-alone thin clients and resource adapters

☒ Embeddable EJB container

☐ Sample applications

☐ Show dependencies

Expand All

Collapse All

Restore Default

- Selected by Installation Manager because of dependencies

Details

IBM WebSphere Application Server Network Deployment 8.5.5.0

IBM WebSphere Application Server Network Deployment is a production-ready Java Platform, Enterprise Edition (Java EE) compliant application server for the deployment of enterprise web services solutions for dynamic e-business. It is the next level in application serving beyond the WebSphere Application Server base edition because it provides advanced web services and clustering capabilities.

?

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Next >

Install

Cancel

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Summary

Install Packages

Review the summary information.

Install

Licenses

Location

Features

Summary

Target Location

Package Group Name:

IBM WebSphere Application Server V8.5

Installation Directory:

/opt/IBM/WebSphere/AppServer

Shared Resources Directory:

/opt/IBM/IMShared

Packages

Packages

IBM WebSphere Application Server Network Deployment 8.5.5.0

WebSphere Application Server Full Profile

EJBDeploy tool for pre-EJB 3.0 modules

Stand-alone thin clients, resource adapters and embeddable containers

Stand-alone thin clients and resource adapters

Embeddable EJB container

Environment

English

Disk Space Information

Total Available Space

/

25.66 GB

Total Download Size:

1.01 GB

Total Installation Size:

2.19 GB

Repository Information

?

< Back

Next >

Install

Cancel

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Results

Install Packages



The packages are installed. [View Log File](#)

The following package was installed:

- ▼ IBM WebSphere Application Server V8.5
 - IBM WebSphere Application Server Network

Which program do you want to start?

- ☐ Profile Management Tool to create a profile.
- ☐ Profile Management Tool to create an application
- ☒ None

Note: If the packages support rollback, the temporary directory contains rollback files for installed packages. You can delete the files on the [Files for rollback](#) preference page.



Finish

Install WebSphere Application Server silently

- IBM Installation Manager also provides a command-line interface
 - Can be used for basic installation, modify, update, and uninstall operations
- IBM Installation Manager is able to record an installation response file
 - Example: `<IM_install>\IBMIM.exe C:\temp\imRegistry -record C:\temp\install_response_file.xml`
- The installation operations can be rerun with the command-line interface and the installation response file
 - Example: `<IM_install>\IBMIM.exe -launcher.ini silent-install.ini -input C:\temp\install_response_file.xml -log C:\temp\install_log.xml`

Working with profiles



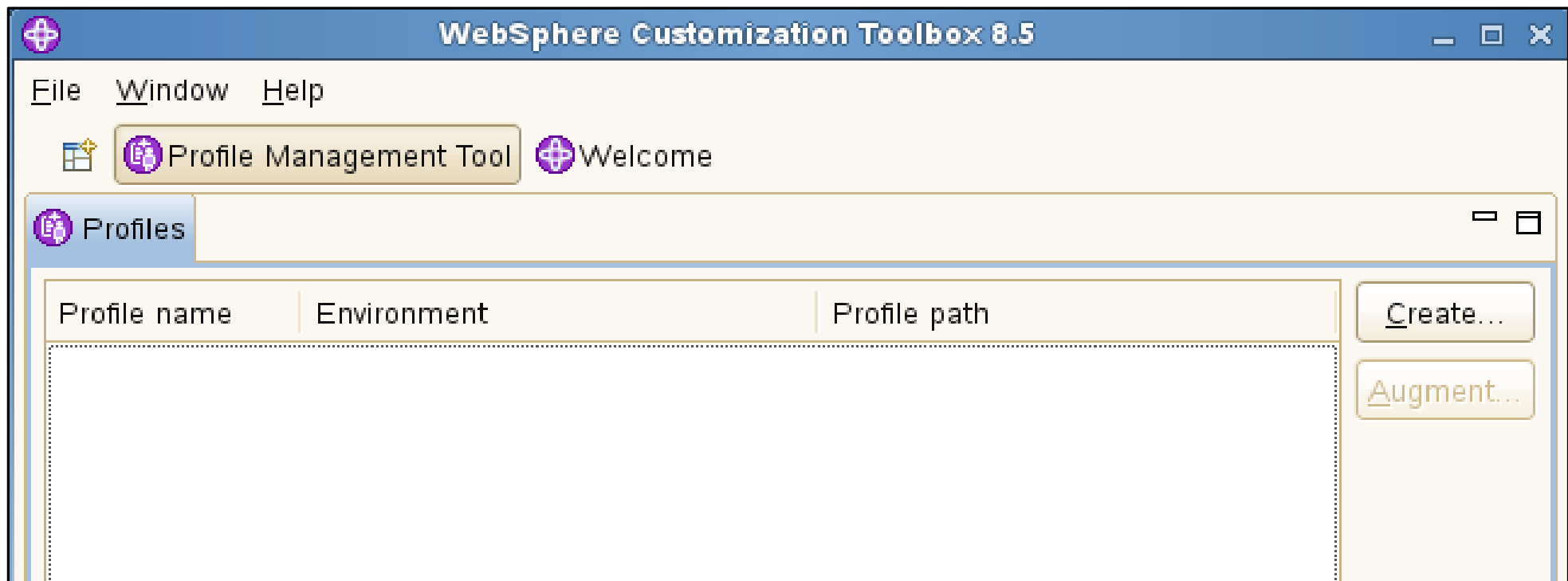
Profiles

- Profiles define application server configuration

Profile types	packages	Functions
Application server (default)	All	Runs your enterprise applications; functions independently from other application servers
Deployment manager	Network Deployment	Provides management capabilities for multiple federated nodes
Job manager	Network Deployment	Provides management capabilities for multiple stand-alone application servers, administrative agents, and deployment managers
Administrative agent	All	Provides management capabilities for multiple stand-alone application servers
Custom (managed)	Network Deployment	Creates and federates a node that contains no predefined application server definitions
Cell	Network Deployment	Provides two profiles: a deployment manager and a federated application server profile
Secure proxy	Network Deployment	Provides a secure proxy configuration-only profile only for use with a DMZ secure proxy server

Starting the Profile Management Tool

- Start the Profile Management Tool from the WebSphere Customization Toolbox
 - At `<was_root>/bin/ProfileManagement/wct.sh`
- Click **Create**



Profile Management Tool: Environment and options

Environment Selection

Select a specific type of environment to create.

Environments:

- WebSphere Application Server
 - Cell (deployment manager and a federated application server) Management
 - Application server
 - Custom profile
 - Secure proxy (configuration-only)

Environment selection

- A profile is associated with an environment type

Application deployment options

- Administration console
- Default application

Optional Application Deployment

Select the applications to deploy to the WebSphere Application Server environment being created.

- ☒ Deploy the administrative console (recommended).

Install a Web-based administrative console that manages the application server. Deploying the administrative console is recommended, but if you deselect this option, the information center contains detailed steps for deploying it after the profile exists.
- ☒ Deploy the default application.

Install the default application that contains the Snoop, Hello, and HitCount servlets.



Profile creation options

The screenshot shows a window titled "Profile Management Tool 8.5" with a sub-header "Profile Creation Options". The window contains two radio button options. The first option, "Typical profile creation", is unselected. The second option, "Advanced profile creation", is selected. Below each option is a descriptive paragraph. At the bottom of the window are four buttons: "< Back", "Next >", "Cancel", and "Finish".

Profile Creation Options

Choose the profile creation process that meets your needs. Pick the Typical option to allow the Profile Management Tool to assign a set of default configuration values to the profile. Pick the Advanced option to specify your own configuration values for the profile.

☐ Typical profile creation

Create an application server profile that uses default configuration settings. The Profile Management Tool assigns unique names to the profile, node, and host. The tool also assigns unique port values. The administrative console and the default application will be installed. You can optionally select whether to enable administrative security. The tool might create a system service to run the application server depending on the operating system of your machine and the privileges assigned to your user account.

Note: Default personal certificates expire in one year. Select Advanced profile creation to create a personal certificate with a different expiration.

☒ Advanced profile creation

Create application server using default configuration settings or specify your own values for settings such as the location of the profile and names of the profile, node, and host. You can assign your own port values. You can optionally choose whether to deploy the administrative console and Sample applications, and create a Web server definition. You might have the option to run the application server as a system service depending on the operating system of your machine and the privileges assigned to your user account.

< Back Next > Cancel Finish



Profile Management Tool: Name, location, and tuning

Profile Name and Location



Specify a profile name and directory path to contain the files for the run-time environment, such as commands, configuration files, and log files. Click **Browse** to select a different directory.

Profile name:

Profile directory:

Browse...

☐ Make this profile the default.

Each installation of WebSphere Application Server always has one default profile. Commands that run without referring to a specific profile use the default profile. Select this option to make this profile the new default

Select the performance tuning settings that most closely match the type of environment in which the application server will run. Review the information center article on performance tuning settings before choosing a setting because additional tuning still might be necessary to optimize the performance of the server for your applications.

Server runtime performance tuning setting:

Standard
Peak
Development

Description

The standard settings are optimized for general purpose usage with conservative settings. The performance monitoring infrastructure service is enabled to gather statistics so you can further tune the server yourself.

See the information center for more information about the performance tuning settings.

[View the online information center](#)

Profile Management Tool: Node and host names

Node and Host Names



Specify a node name, a server name, and a host name for this profile.

Node name:

Server name:

Host name:

Node name: A node name is used for administration. If the node is federated, the name must be unique within the cell.

Server name: A server name is a logical name for the application server.

Host name: A host name is the domain name system (DNS) name (short or long) or the IP address of this computer and cannot contain spaces or the following characters: / \ * , : ; = + ? | < > _ % ' " [] # \$ ^ { } ()

The following naming rules must be used:

- Names must start and end with alphabetic characters (A-Z, a-z), numbers (0-9), and underscores (_) only.
- Names may contain alphabetic characters (A-Z, a-z), numbers (0-9), periods (.), dashes (-) and underscores (_) only.
- Names must not contain spaces or these characters: / \ * , : ; = + ? | < > _ % ' " [] # \$ ^ { } ()

Profile Management Tool: Security

Administrative Security



Choose whether to enable administrative security. To enable security, supply a user name and password for logging into administrative tools. This administrative user is created in a repository within the application server. After profile creation finishes, you can add more users, groups, or external repositories.

☒ Enable administrative security

User name:

wasadmin



Password:

••••••••••

Confirm password:

••••••••••

Profile Management Tool: Security certificate (1 of 2)

Security Certificate (Part 1)

Choose whether to create a default personal certificate and root signing certificate, or import them from keystores. To create new certificates, proceed to Part 2 and provide the certificate information. To import existing certificates from keystores, locate the certificates then proceed to Part 2 and verify the certificate information.


☒ Create a new default personal certificate.


☐ Import an existing default personal certificate.

Default personal certificate

Path:

Password:

Keystore type: 

Keystore alias: 

☒ Create a new root signing certificate.

☐ Import an existing root signing certificate.

Root signing certificate

Path:



Profile Management Tool: Security certificate (2 of 2)

Security Certificate (Part 2)



Modify the certificate information to create new certificates during profile creation. If you are importing existing certificates from keystores, use the information to verify whether the selected certificates contain the appropriate information. If the selected certificates do not, click **Back** to import different certificates.

[Restore Defaults](#)

Default personal certificate (a personal certificate for this profile, public and private key):

Issued to distinguished name:

cn=was85host,ou=was85hostNode01 Cell,ou=was85hostNode01,o=IBM,c=US

Issued by distinguished name:

cn=was85host,ou=Root Certificate,ou=was85hostNode01 Cell,ou=was85hostNode01,o=IBM,c=US

Expiration period in years:

1



Root signing certificate (personal certificate for signing other certificates, public and private key):

Expiration period in years:

15



Profile Management Tool: Ports

Port Values Assignment

The values in the following fields define the ports for the application server and do not conflict with d
Another installation of WebSphere Application Server or other programs might use the same ports.
verify that each port value is unique.

Default Port Values

Recommended Port Values

Administrative console port (Default 9060):

9061

Administrative console secure port (Default 9043):

9045

HTTP transport port (Default 9080):

9081

HTTPS transport port (Default 9443):

9444

Bootstrap port (Default 2809):

2811

SIP port (Default 5060):

5063

SIP secure port (Default 5061):

5062

SOAP connector port (Default 8880):

8882

Administrative interprocess communication port (Default 9633)(X):

9634

SAS SSL ServerAuth port (Default 9401):

9409

CSIV2 ServerAuth listener port (Default 9403):

9408

- Review port value assignments

Profile Management Tool: Service Definition

Linux Service Definition





Choose whether to use a Linux service to run WebSphere Application Server.

☐ Run the application server process as a Linux service.

User name:

Profile Management Tool: Web server definition

Web Server Definition

Optionally create a Web server definition if you use a Web server to route requests for dynamic content to the application server. Alternatively, you can create a Web server definition from the administrative console or a script that is generated during Web server plug-ins installation.

☐ Create a Web server definition

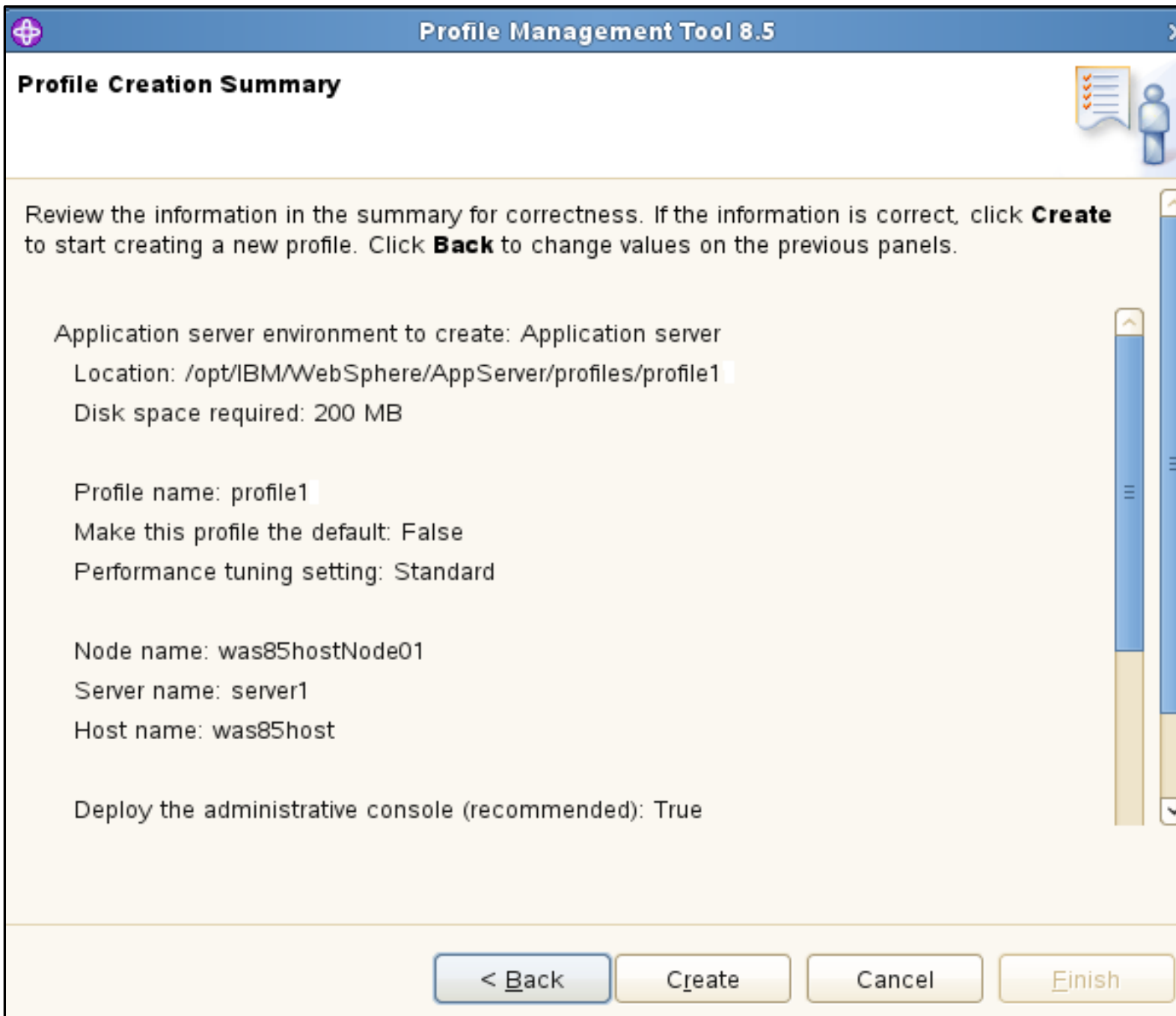
Web server type:
IBM HTTP Server

Web server operating system:
Linux

Web server name:
webserver1

Web server host name or IP address:
was85host

Profile Management Tool: Summary



The screenshot shows the 'Profile Management Tool 8.5' window with the 'Profile Creation Summary' tab selected. The window contains a summary of the profile creation process, including the application server environment, location, disk space required, profile name, default status, performance tuning setting, node name, server name, host name, and whether to deploy the administrative console. At the bottom, there are four buttons: '< Back', 'Create', 'Cancel', and 'Finish'.

Profile Management Tool 8.5

Profile Creation Summary

Review the information in the summary for correctness. If the information is correct, click **Create** to start creating a new profile. Click **Back** to change values on the previous panels.

Application server environment to create: Application server
Location: /opt/IBM/WebSphere/AppServer/profiles/profile1
Disk space required: 200 MB

Profile name: profile1
Make this profile the default: False
Performance tuning setting: Standard

Node name: was85hostNode01
Server name: server1
Host name: was85host

Deploy the administrative console (recommended): True

< Back Create Cancel Finish

Profile creation summary

- Summary information is based on the selections you made in previous panels
- Review the summary for accuracy

Profile Management Tool: Results

Profile Creation Complete



The Profile Management Tool created the profile successfully.

The next step is to decide whether to federate the application server into a deployment manager cell.

To federate the application server, use either the **addNode** command or the administrative console of the deployment manager. Using the administrative console requires the application server to be running.

You can start and stop the application server from the command line or the First steps console. The First steps console also has links to an installation verification test and other information and features that relate to the application server.

☐ Launch the First steps console.

To start the Profile Management Tool later, `app_server_root\bin\ProfileManagement` displays the First steps console.

< Back

Next >

Profile creation results

- Optionally start the First steps console when finished
- Each profile that you create is displayed in the profile list

WebSphere Customization Toolbox 8.5

File Window Help

Profile Management Tool Welcome

Profiles

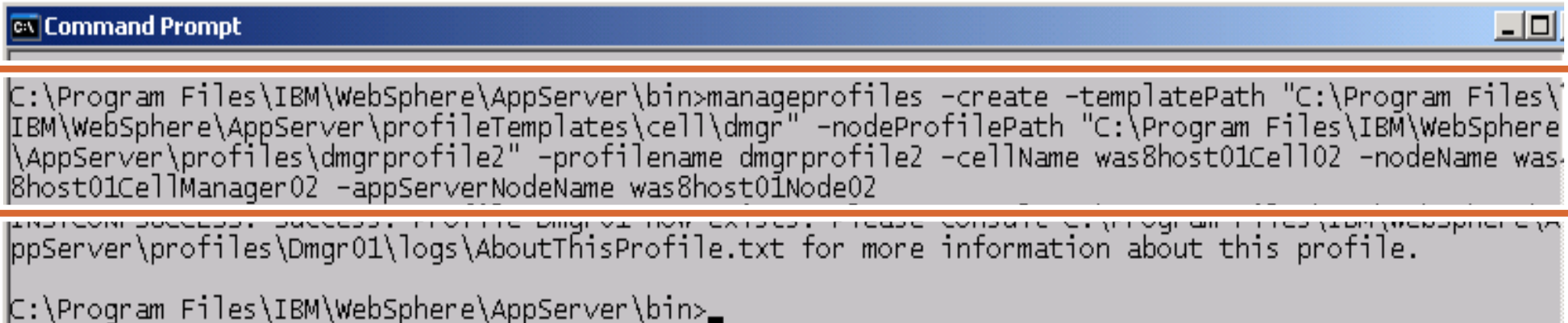
Profile name	Environment	Profile path
Dmgr	Management	/opt/IBM/WebSphere/AppServer/pro
profile1	Application server	/opt/IBM/WebSphere/AppServer/pro
profile2	Custom profile	/opt/IBM/WebSphere/AppServer/pro

Create... Augment...

Profile creation with command-line tool

- The **manageprofiles** command-line tool allows you to create, list, alter, or delete profiles

manageprofiles -<mode> -<argument> <argument parameter>



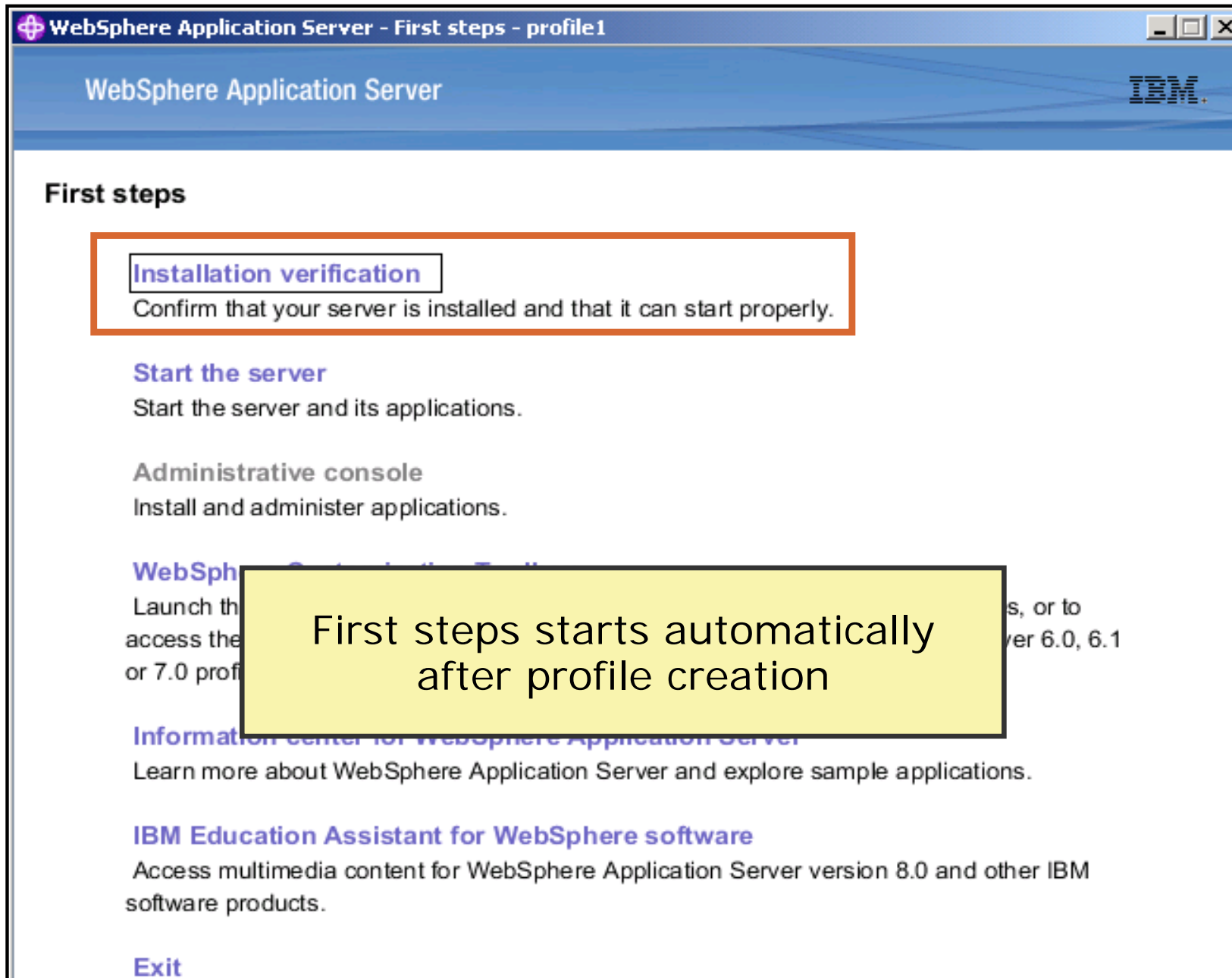
```
C:\Program Files\IBM\WebSphere\AppServer\bin>manageprofiles -create -templatePath "C:\Program Files\IBM\WebSphere\AppServer\profileTemplates\cell\dmgr" -nodeProfilePath "C:\Program Files\IBM\WebSphere\AppServer\profiles\dmgrprofile2" -profilename dmgrprofile2 -cellName was8host01Cell02 -nodeName was8host01CellManager02 -appServerNodeName was8host01Node02

INFO: SUCCESS: Profile dmgr02 now exists. Please consult C:\Program Files\IBM\WebSphere\AppServer\profiles\dmgr01\logs\AboutThisProfile.txt for more information about this profile.

C:\Program Files\IBM\WebSphere\AppServer\bin>
```


Verifying an installation





Installation verification

```
[10/17/11 11:28:24:071 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:24:087 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:24:087 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:24:087 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:24:087 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:24:103 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:24:196 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:26:478 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:26:478 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:26:498 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
[10/17/11 11:28:26:498 EDT] 000000007 wtp      W org.eclipse.jst.j2ee.commonarchivecore.interna
IVTL0070I: The Installation Verification Tool verification succeeded.
IVTL0080I: The installation verification is complete.
```

- When successful, the Installation Verification Tool starts the application server and displays a successful completion message

Post installation tasks





Applications installed following installation

- System applications:
 - `isclite` (administrative console)
 - `filetransfer`
- Enterprise (Java EE) applications:
 - Default application
 - Installation verification test
 - Query
 - Samples (if selected)
- Samples gallery includes:
 - PlantsByWebSphere

Uninstall

IBM Installation Manager

Always use IBM Installation Manager to uninstall

- Do not use Add/Remove program to uninstall WebSphere

Cannot custom
uninstall parts of
WebSphere
installation

- All the components are removed
- Logs and properties files are not removed

Silent uninstallation is supported by running IBM Installation Manager as a background process



Install

Install software packages.



Update

Discover and install updates and fixes to installed software packages.



Modify

Change installed software packages by adding or removing features and functions.

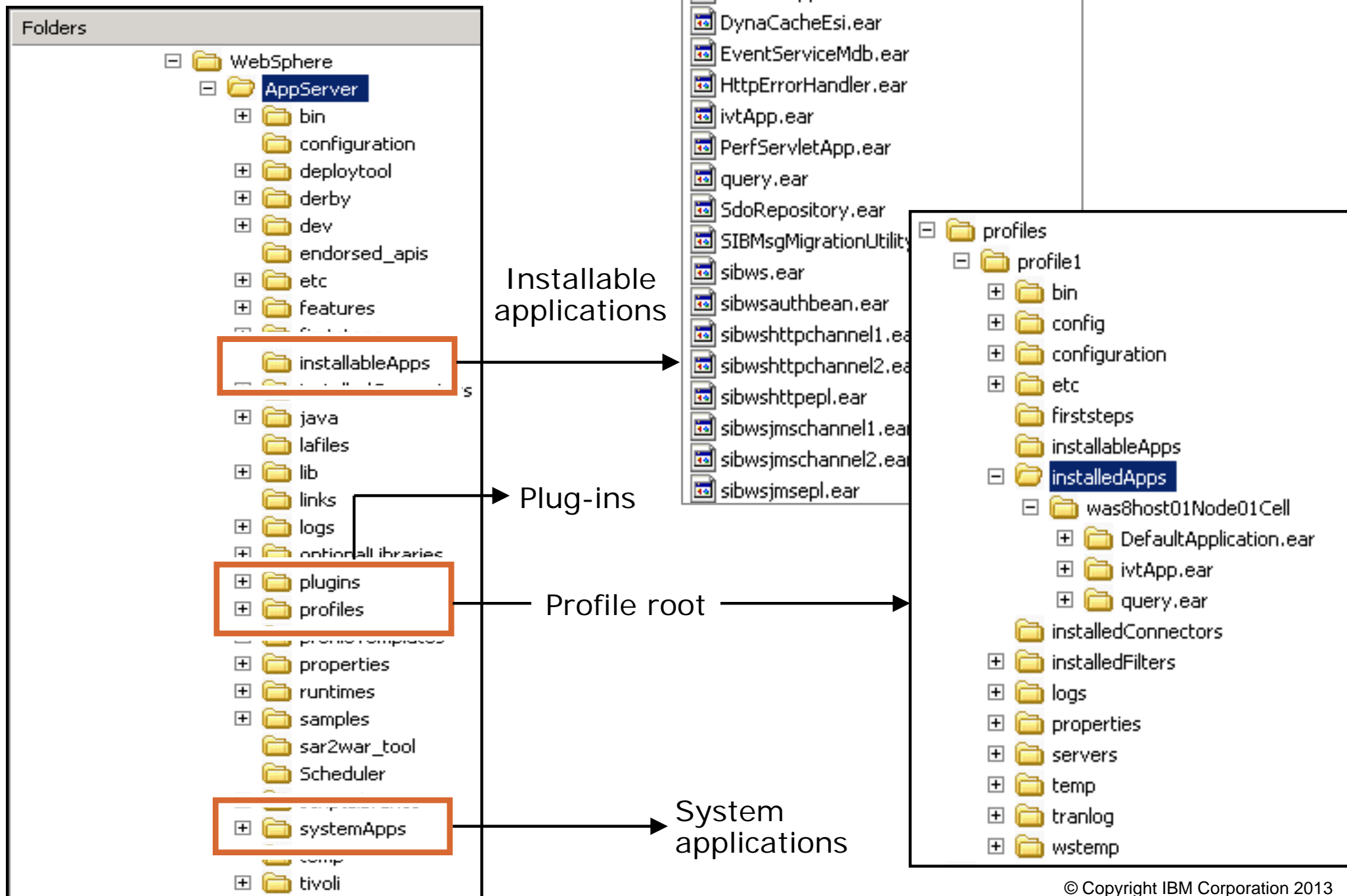


Roll Back

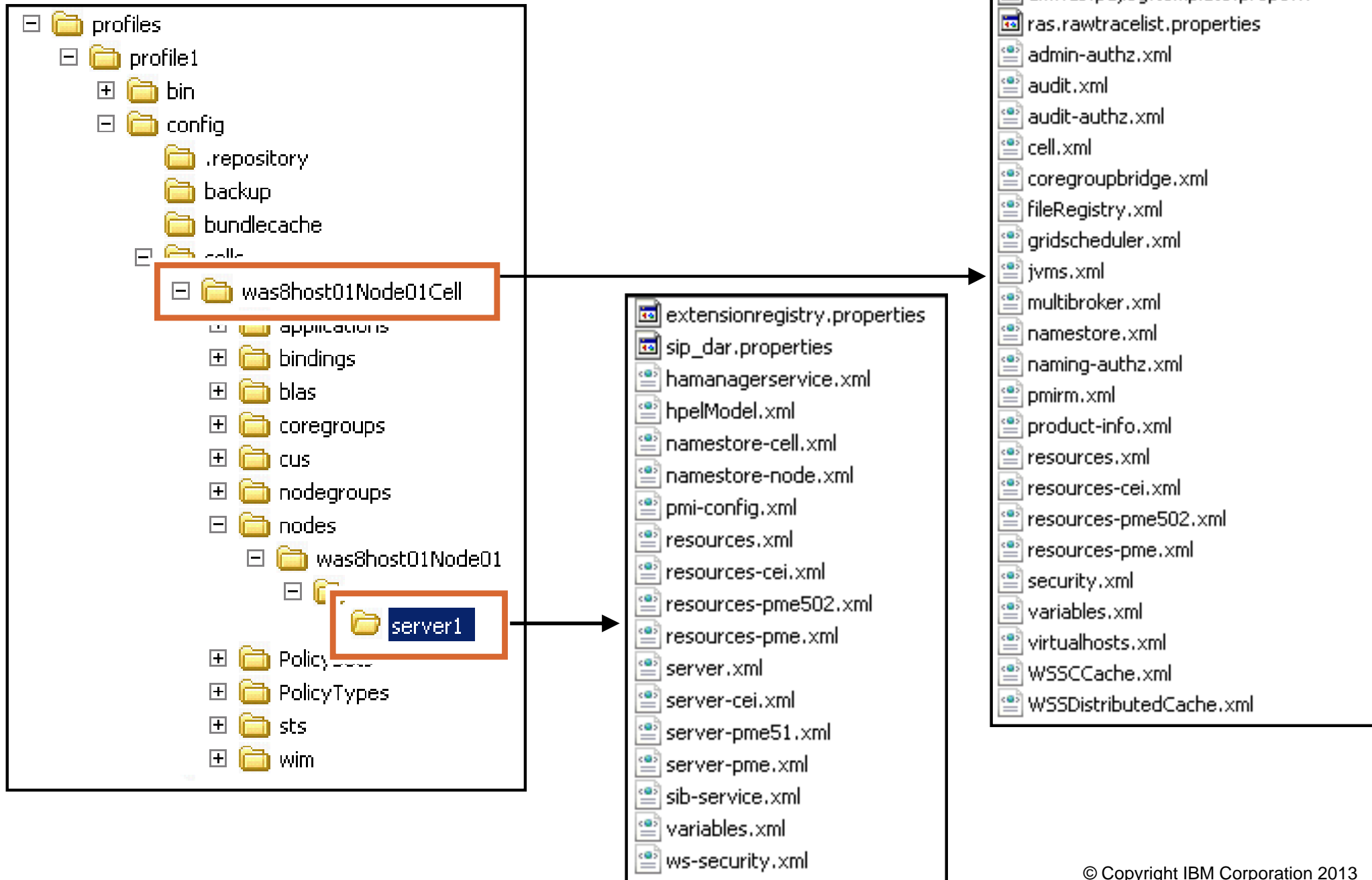


Uninstall

Directory structure



Configuration files



Common command-line tools

- **startServer** starts a server

```
C:\Program Files\IBM\WebSphere\AppServer\bin>startServer server1 -profileName profile1
ADMU0110I: Tool information is being logged in file C:\Program Files\IBM\WebSphere\AppServer\profiles\profile1\logs\server1\startServer.log
ADMU0128I: Starting tool with the profile1 profile
ADMU3100I: Reading configuration for server: server1
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server server1 open for e-business; process id is 5060
```

- **stopServer** stops a server

```
C:\Program Files\IBM\WebSphere\AppServer\bin>stopServer server1 -profileName profile1 -username wasadmin -password webSphere
ADMU0110I: Tool information is being logged in file C:\Program Files\IBM\WebSphere\AppServer\profiles\profile1\logs\server1\stopServer.log
ADMU0128I: Starting tool with the profile1 profile
ADMU3100I: Reading configuration for server: server1
ADMU3201I: Server stop request issued. Waiting for stop status.
ADMU4000I: Server server1 stop completed.
```

- **serverStatus** displays server status
- **versionInfo** displays installed product versions

Server commands

- WebSphere commands are profile aware
 - There is a `-profileName` option on many WebSphere V8 commands
`<was_root>\bin\startServer server1 -profileName profile1`
 - Or issue the commands from the appropriate profile directory
`<profile_root>\profile1\bin\startServer server1`
- If no profile is specified, the default profile is assumed
 - There can be only one default profile
- Examples:
 - `startServer server1 -profileName profile1`
 - `startManager -profileName DmgrProfile`
 - `stopServer server1` (assumes the default profile)

Configuration backup and restore

- Backup configuration files: **backupConfig <backup_file>.zip**

```
C:\Program Files\IBM\WebSphere\AppServer\profiles\profile1\bin>backupConfig WebSphereConfig_2011_10_10.zip -nostop -username wasadmin -password web1sphere
```

```
Files\IBM\WebSphere\AppServer\profiles\profile1\logs\backupConfig.log
ADMU0128I: Starting tool with the profile1 profile
ADMU5001I: Backing up config directory C:\Program
Files\IBM\WebSphere\AppServer\profiles\profile1\config to file
C:\Program
Files\IBM\WebSphere\AppServer\profiles\profile1\bin\WebSphereConfig_2011_10_10.zip
```

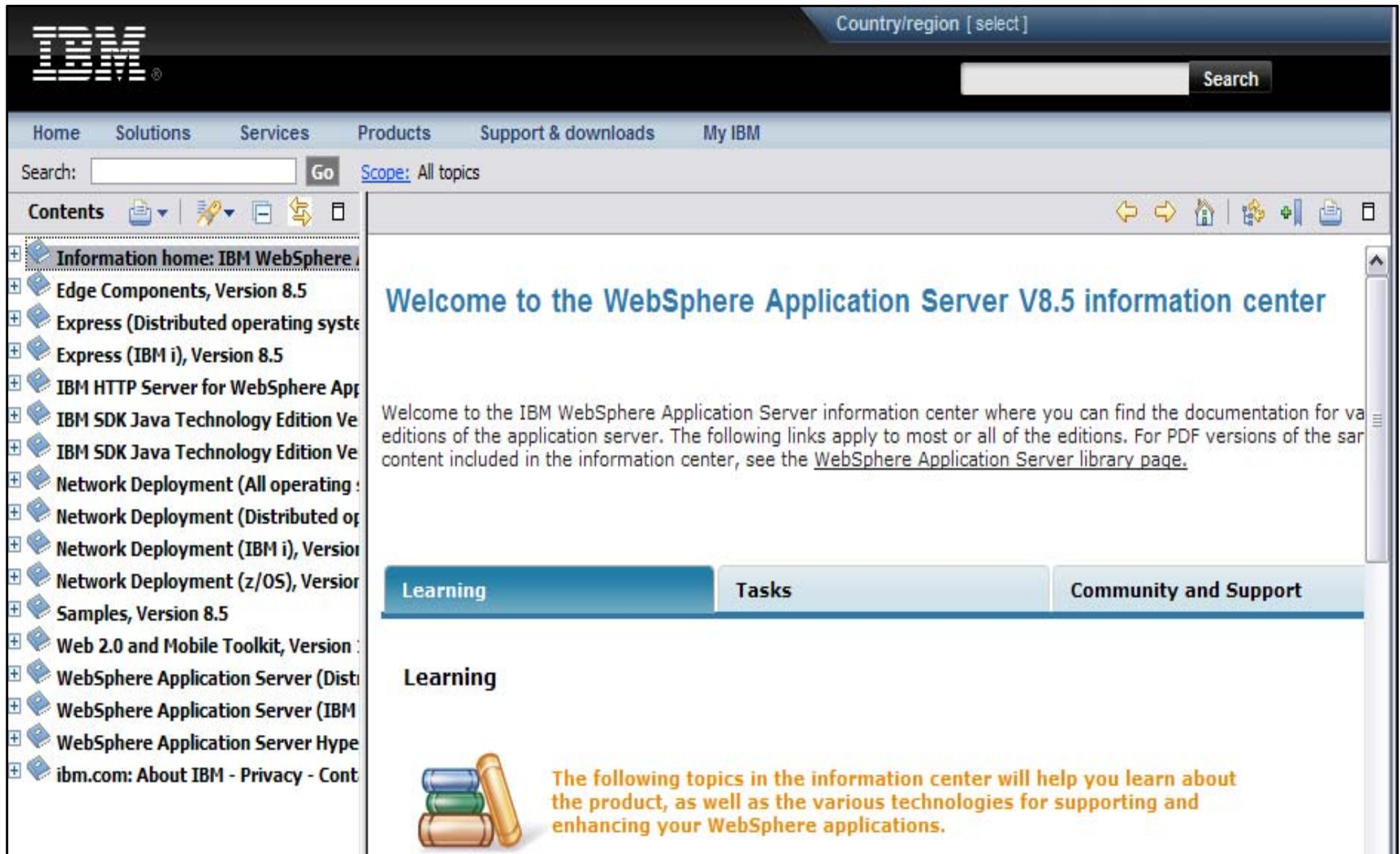
- Restore configuration files: **restoreConfig <backup_file>.zip**

```
C:\Program Files\IBM\WebSphere\AppServer\profiles\profile1\bin>restoreConfig WebSphereConfig_2011_10_10.zip -nostop -username wasadmin -password web1sphere
```

```
Files\IBM\WebSphere\AppServer\profiles\profile1\logs\restoreConfig.log
ADMU0128I: Starting tool with the profile1 profile
ADMU5502I: The directory C:\Program
Files\IBM\WebSphere\AppServer\profiles\profile1\config already
exists; renaming to C:\Program
Files\IBM\WebSphere\AppServer\profiles\profile1\config.old
ADMU5504I: Restore location successfully renamed
ADMU5505I: Restoring file WebSphereConfig_2011_10_10.zip to location C:\Program
Files\IBM\WebSphere\AppServer\profiles\profile1\config
```

Accessing the information center: Online

<http://publib.boulder.ibm.com/infocenter/wasinfo/v8r5/index.jsp>



The screenshot shows the IBM WebSphere Application Server V8.5 information center. The page features a dark blue header with the IBM logo and a search bar. Below the header is a navigation menu with links to Home, Solutions, Services, Products, Support & downloads, and My IBM. A search bar is also present with a 'Go' button and a 'Scope: All topics' dropdown. The main content area is divided into two columns. The left column contains a 'Contents' section with a list of topics, including 'Information home: IBM WebSphere', 'Edge Components, Version 8.5', 'Express (Distributed operating system)', 'Express (IBM i), Version 8.5', 'IBM HTTP Server for WebSphere Application Server', 'IBM SDK Java Technology Edition Version 8.5', 'IBM SDK Java Technology Edition Version 8.5', 'Network Deployment (All operating systems)', 'Network Deployment (Distributed operating system)', 'Network Deployment (IBM i), Version 8.5', 'Network Deployment (z/OS), Version 8.5', 'Samples, Version 8.5', 'Web 2.0 and Mobile Toolkit, Version 8.5', 'WebSphere Application Server (Distributed operating system)', 'WebSphere Application Server (IBM i)', 'WebSphere Application Server Hypervisor', and 'ibm.com: About IBM - Privacy - Contact Us'. The right column displays the 'Welcome to the WebSphere Application Server V8.5 information center' message, followed by a paragraph of text and a 'Learning' section. The 'Learning' section includes an illustration of three books and a text box stating: 'The following topics in the information center will help you learn about the product, as well as the various technologies for supporting and enhancing your WebSphere applications.'

Accessing the information center: Offline options

- For offline solutions, the information center is available through documentation plug-ins
- There are two solutions to configure and view information center content offline:
 - Install documentation plug-ins into an existing IBM User Interface Help System
 - Provided as part of another IBM product (example: IBM Rational Application Developer or IBM Assembly and Deploy Tool)
 - Customize and export documentation plug-ins from the Toolkit for Custom and Reusable Solution Information

Unit summary

Having completed this unit, you should be able to:

- Describe the installation process for WebSphere Application Server
- Verify the installation of WebSphere Application Server
- Describe WebSphere profiles
- Describe the directories and configuration files for WebSphere Application Server
- Describe how to use configuration commands
- Describe how to use backup and restore configuration utilities

Checkpoint questions

1. What are the types of profiles that can be configured?
2. Which log file is used to verify that the installation was successful?
3. What is the Installation Verification Tool, and how can it be accessed?

Checkpoint answers

1. What are the types of profiles that can be configured?
 - For the application server, an application server profile. For Network Deployment, you can also configure deployment manager, custom, and cell profiles.
2. Which log file is used to verify that the installation was successful?
 - Examine the log file `<was_root>\logs\install\log.txt`
3. What is the Installation Verification Tool, and how can it be accessed?
 - The Installation Verification Tool scans log files to look for errors that might occur during installation. It can be started from the command line or from the First steps console of each profile.