JD Edwards EnterpriseOne Tools

IBM WebSphere Portal for IBM i for Power Systems Guide

9.2

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9.2

Part Number: E53529-05

Contents

Preface

Welcome to the JD Edwards EnterpriseOne documentation.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at *http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc* .

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit *http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info* or visit *http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs* if you are hearing impaired.

Related Information

For additional information about JD Edwards EnterpriseOne applications, features, content, and training, visit the JD Edwards EnterpriseOne pages on the JD Edwards Resource Library located at:

http://learnjde.com

Conventions

The following text conventions are used in this document:

Convention	Meaning
Bold	Boldface type indicates graphical user interface elements associated with an action or terms defined in text or the glossary.
Italics	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`Monospace`	Monospace type indicates commands within a paragraph, URLs, code examples, text that appears on a screen, or text that you enter.
> Oracle by Example	Indicates a link to an Oracle by Example (OBE). OBEs provide hands-on, step- by-step instructions, including screen captures that guide you through a process using your own environment. Access to OBEs requires a valid Oracle account.

1 Overview

Before You Begin

This document describes the process of installing and configuring WebSphere Portal Server v8.5 on a single *IBM i* machine. This document steps the installer through the installation, upgrade, and configuration of the WebSphere Portal Server environment and its related components. The document includes sections on databases transfer, security, and LDAP.

Starting with WebSphere Portal v8.5, the initial configuration is stored in the embedded Apache Derby database. You need to transfer this database to the native *IBM i* database.

Before you begin:

- The *IBM i* operating system must be on the i7 or V6R1 level.
- Refer to the JD Edwards EnterpriseOne Minimum Technical Requirements for EnterpriseOne Collaborative Portal, and install an updated group PTF, if necessary. See *Minimum Technical Requirements* in this guide for information on how to access the Minimum Technical Requirements document for Collaborative Portal v8.5.
- Install a Windows workstation on the same LAN Segment as your *IBM i* machine.
- During this installation process, you will IPL your *IBM i* machine to activate the Group PTFs. Check with your system administrator before you begin. Use the wrkptfgrp command to verify all PTF levels before installing any software. Verify you have all require PTFs media.
- During the installation, you will be prompted for the LDAP Administrator's password. This is the IBM Directory Server (LDAP) Administrator account, not the QSECOFR account. Obtain the password from your system administrator.
- Stop all WebSphere Application Server jobs which are running, such as QEJBSVR or QWAS7, it is recommended to stop the QWAS85 sub system before proceeding with the installation.

Understanding the Installation Methodology

The recommended installation method is the same for JD Edwards EnterpriseOne as for IBM. The installation includes this sequence of tasks:

1. Install WebSphere Application Server 8.5.5.6 (WAS 8.5.5.6)
2. Install WebSphere Fix Pack 11 (or higher as listed in the MTR)
3. Install and configure the WebSphere Portal Server v8.5
4. Transfer Apache Derby database to *DB2 for i* /400 (optional)
5. Enable security (optional)
6. Verify the installation

Preparing the IBM i Server for IBM WebSphere Portal

This section includes information for setting up the operating system of your *IBM i* server for IBM WebSphere Portal v8.5. Other components might require additional steps; see the product documentation for the specific components you want to install for information.

WebSphere Portal can be installed locally or remotely using a Windows workstation (recommended).

You need the following information to install remotely:

- Microsoft Windows 2003 or Windows 2008, 2008 R2 or Windows XP, Windows 7
- Workstation CD-ROM drive (optional)
- TCP/IP connection to the i5/OS system where you will install WebSphere Portal v8.5
- The *IBM i* server must be in an unrestricted state
- A valid user ID and password on the *IBM i* system
- A user profile with a user type (user class) of *ALLOBJ and *SECADM to install and configure WebSphere Portal v8.5

You need the following information to install locally:

- *IBM i* /OS CD-ROM drive (optional)
- The *IBM i* server must be in an unrestricted state
- A valid *IBM i* user ID and password
- A user profile with a user type (user class) of *ALLOBJ and *SECADM to install and configure WebSphere Portal v8.5

2 Installing the WebSphere Portal Server

Prerequisites

You must follow the prerequisites in the section before installing the WebSphere Portal Server.

Minimum Technical Requirements

Before you install Portal v8.5, you must first install WebSphere Application Server 8.5.5.6 and the latest supported fix pack listed in the JD Edwards EnterpriseOne HTML Web Server Minimum Technical Requirements (MTRs). These MTRs are available on My Oracle Support in document ID 705409.1 and can be accessed at this link:

https://support.oracle.com/rs?type=doc&id=705409.1

Installing WebSphere Application Server 8.5.5.6

To install WebSphere Application Server 8.5.5.6, refer to Chapter 3: Installing and Configuring WebSphere Application Server 8.5.5.6 in the JD Edwards EnterpriseOne HTML Web Server Reference Guide for iSeries -Based Systems and WebSphere Application Server 8.5.5.6. This document is available on My Oracle Support in document ID 705495.1 and can be accessed at this link:

https://support.oracle.com/rs?type=doc&id=705495.1

If you are using same single physical machine for both the Portal and the HTML Server, you cannot install the JD Edwards EnterpriseOne HTML Web Server (also called JAS) to the same profile as that of Portal. By default, WebSphere Portal v8.5 creates a separate profile called wp_profile.

References

IBM product documentation for Portal v8.5:

http://www-10.lotus.com/ldd/portalwiki.nsf/xpViewCategories.xsp?lookupName=IBM%20WebSphere%20Portal%207%20Product%20Documentation&SessionID=CWFHNIG8CY

IBM WebSphere Application Server 8.5 Info Center:

http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/index.jsp

IBM Portal v8.5 Hardware and Software Requirements:

http://www-01.ibm.com/support/docview.wss?uid=swg27007791

Installing the Portal Server

To begin the installation:

1. Download the WebSphere Portal 8.5 software from the IBM support site.
2. From either the Setup CD or directory, you can use various methods to launch the installer, as shown in this table:

Installation Method	Command and Description
Graphical user interface	./install.bat
Console mode	./install.bat -console
Silent install	./install.bat -options “path_to_file/response_filename" where path_to_file is the full path to the response file, and where response_filename is the name of the file. A sample install response file (installresponse.txt) and a sample uninstall response file (uninstallresponse.txt) are located in the root directory of the Setup CD. **Important**: Do not place the response file in a path that contains a space and do not put a space in the file name.

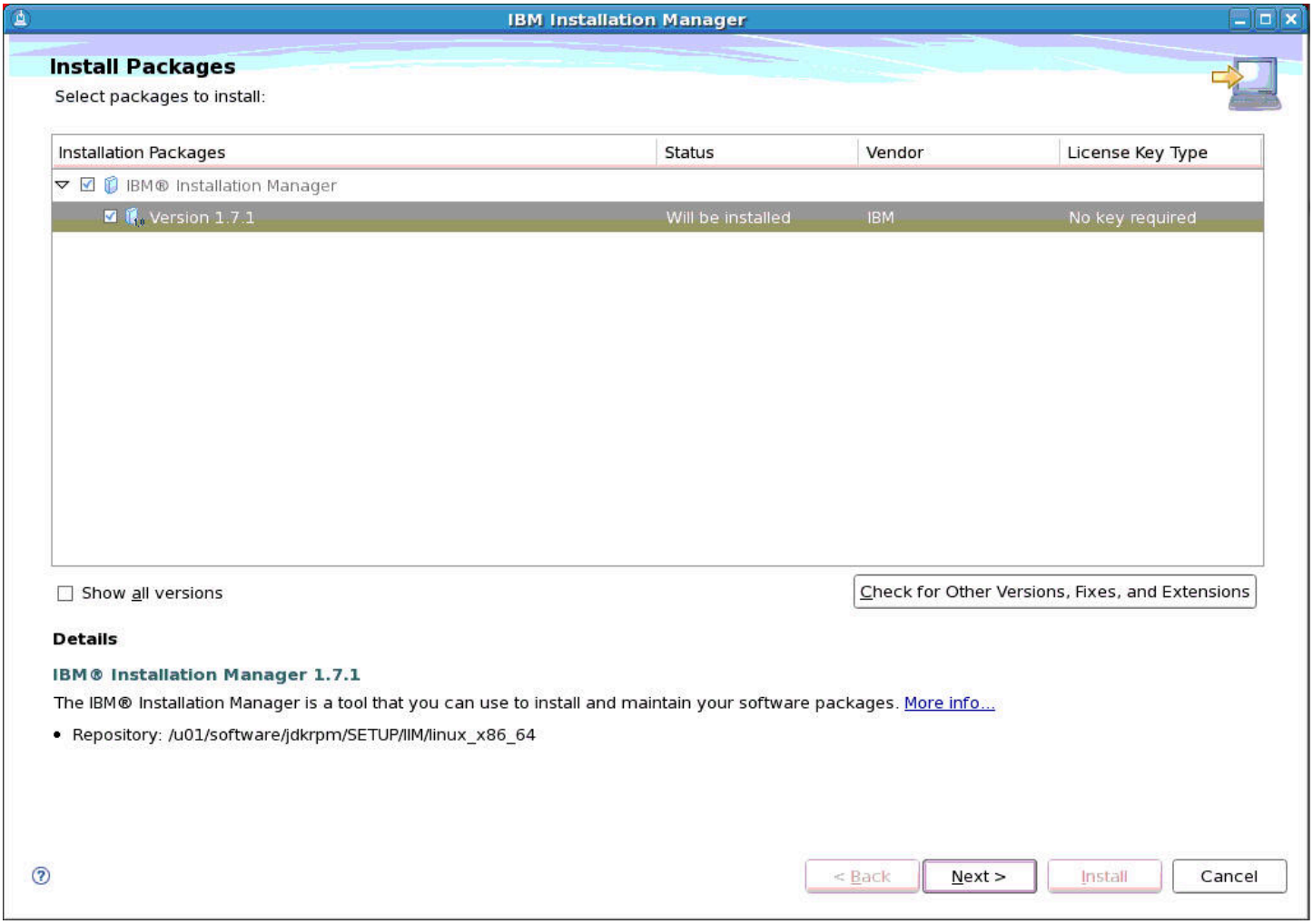
> **Note:** If the installation program does not detect a WebSphere Application Server instance that you know exists, exit the installation program and re-run it using command line options to specify the WebSphere Application Server instance location. For example: ./install.bat -W was.undetectedWas="/my/WAS/location" Upon execution, by default the installer creates a separate profile called wp_profile. This profile is used to host the Portal contents. Therefore, you should not install Portal into an existing profile with other applications installed.

To run the installer interactively (via GUI), export the DISPLAY using a XWindows Server, using the following syntax:

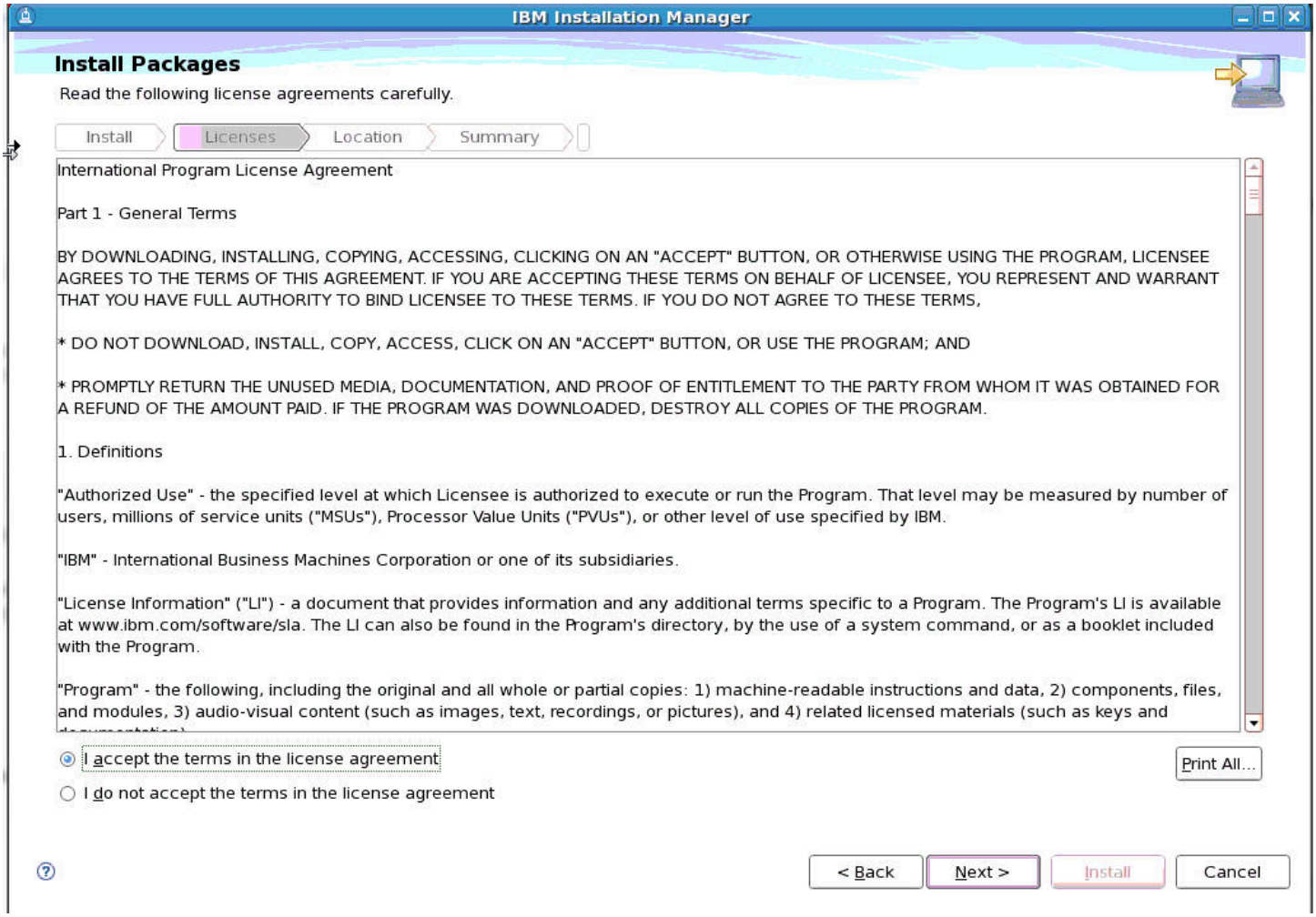
```
set DISPLAY=IP:0 (i.e set DISPLAY=10.139.157.63:0)
 export DISPLAY
```

3. Click the **install** icon to begin the installation.

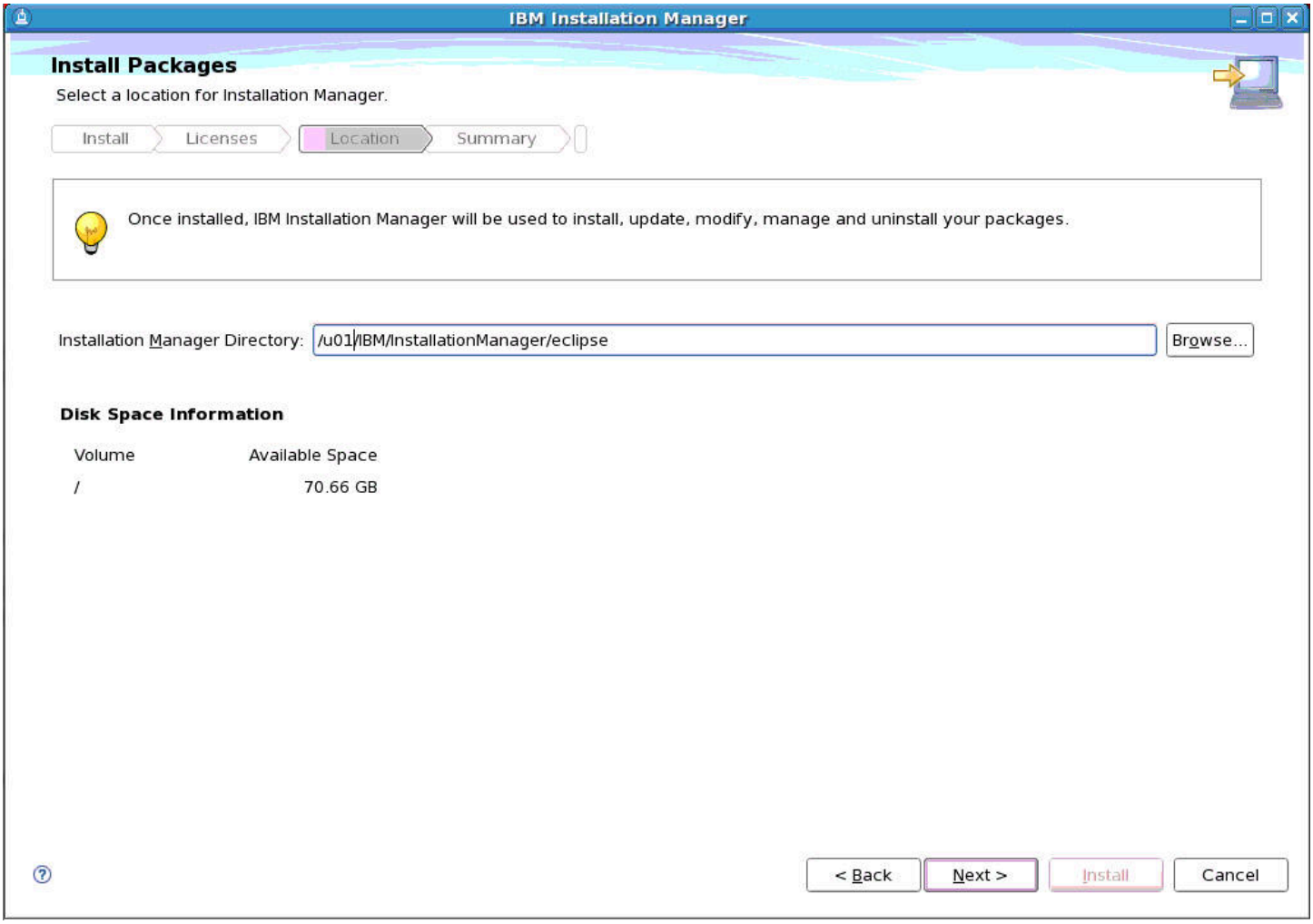
4. The IBM Installation Manager presentation screen will appear.



5. Select the version package to be installed.

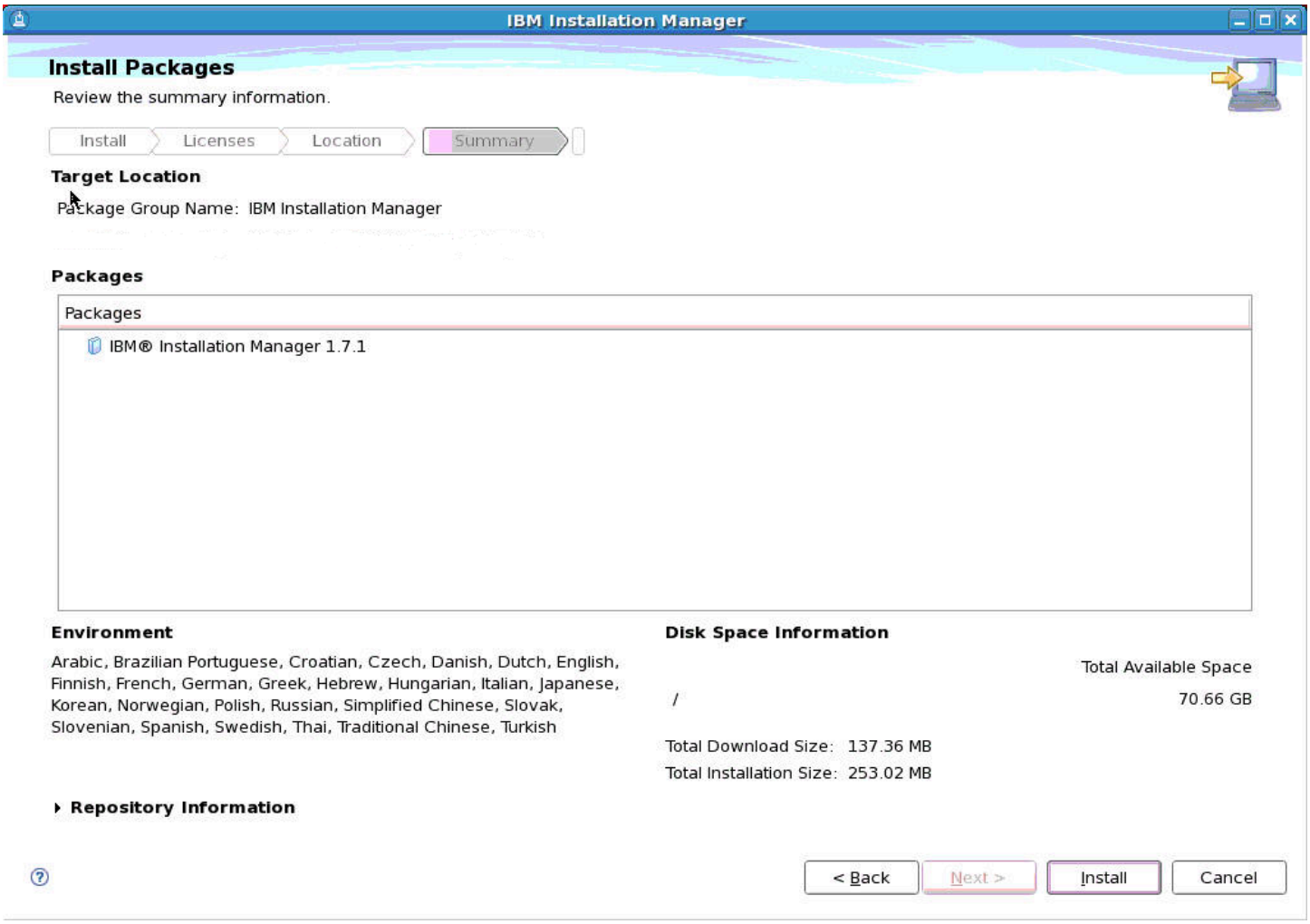


6. Accept the license agreement terms and click the Next button.

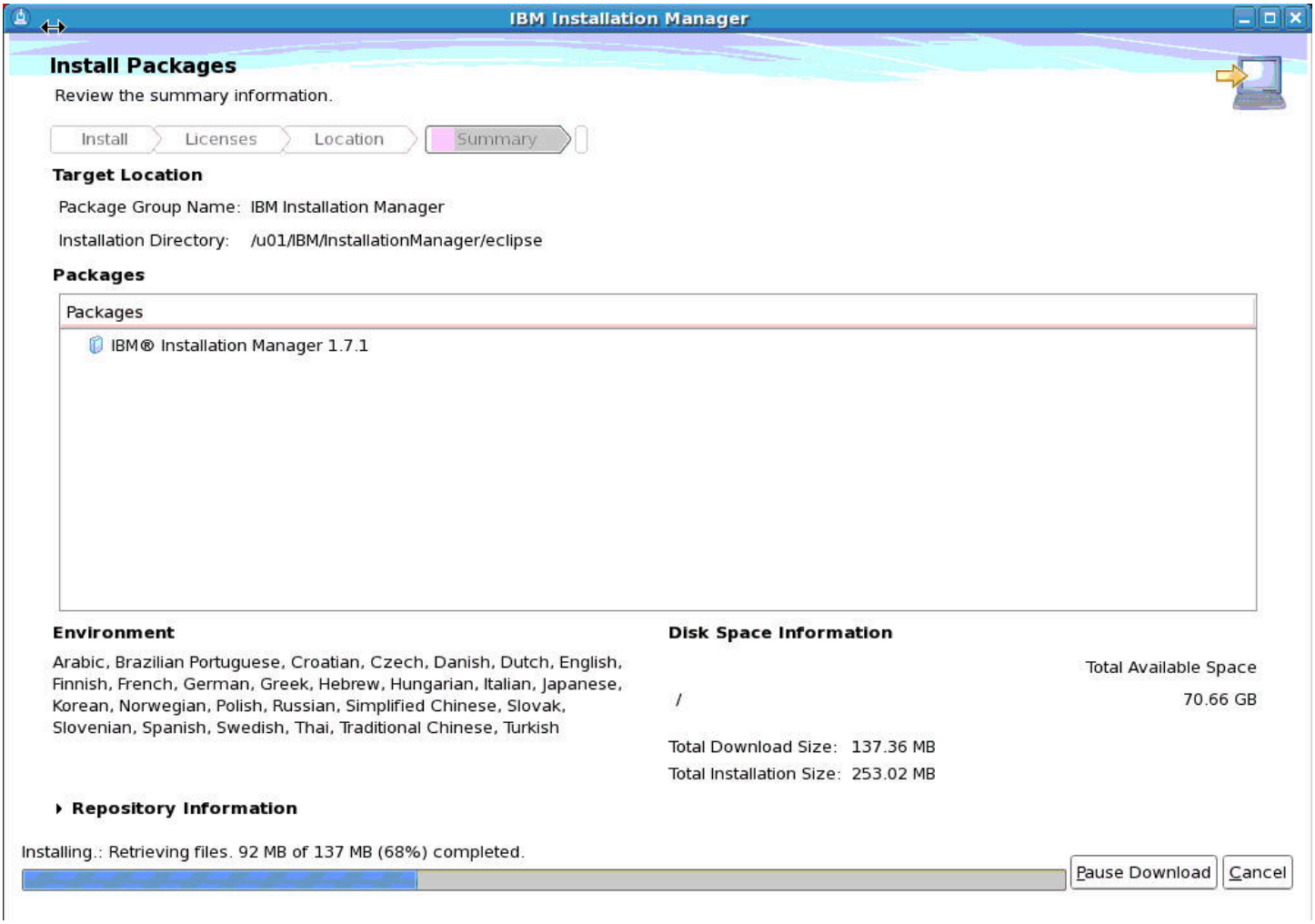


7. If it is not already listed, enter the Installation Manager Directory and click the Next button.

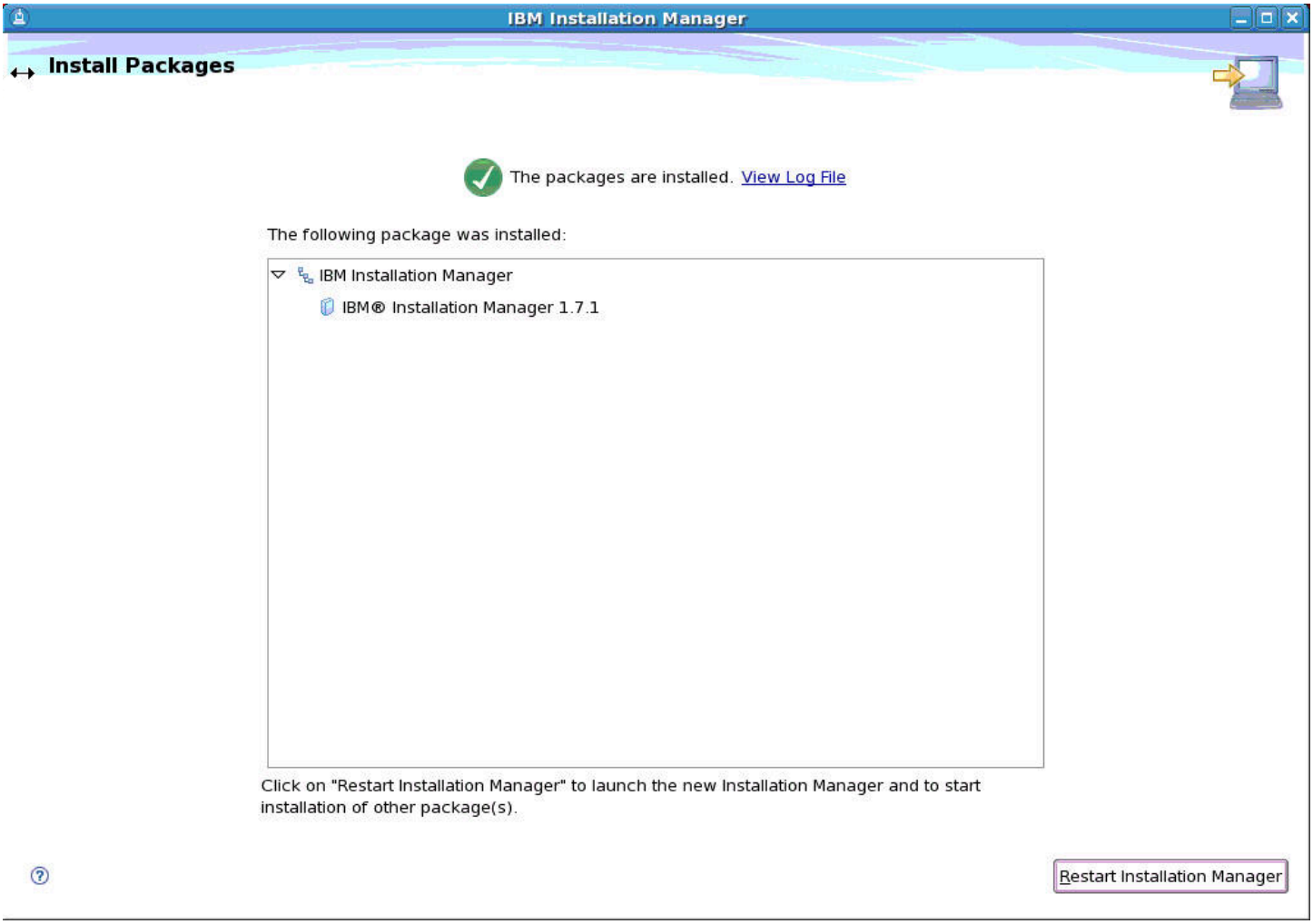
> **Note:** Any file path in this chapter that begins with /u01/, such as the path in the above screenshot, should be replaced with /QIBM/.



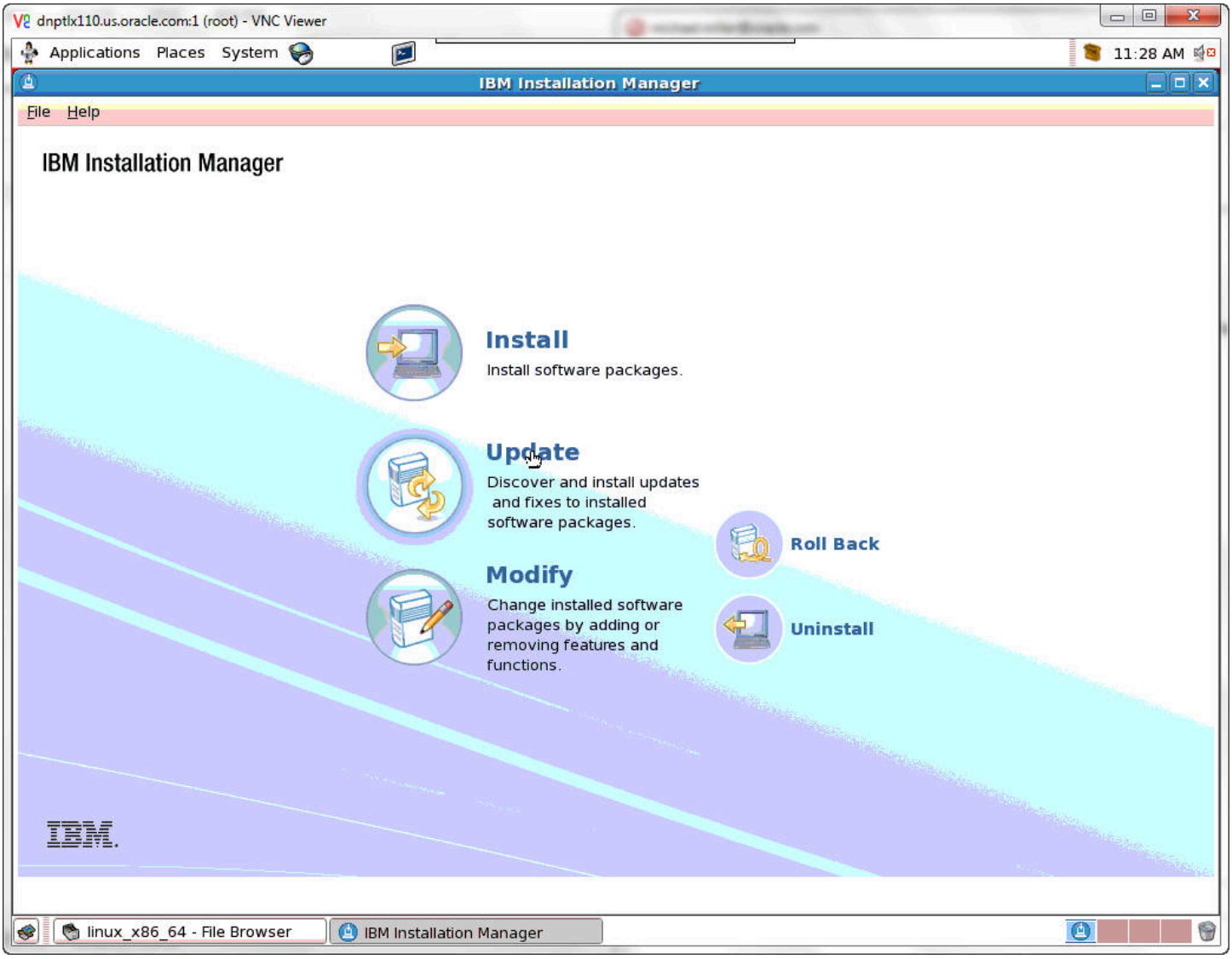
8. Review the summary information for the target location and click the Install button.



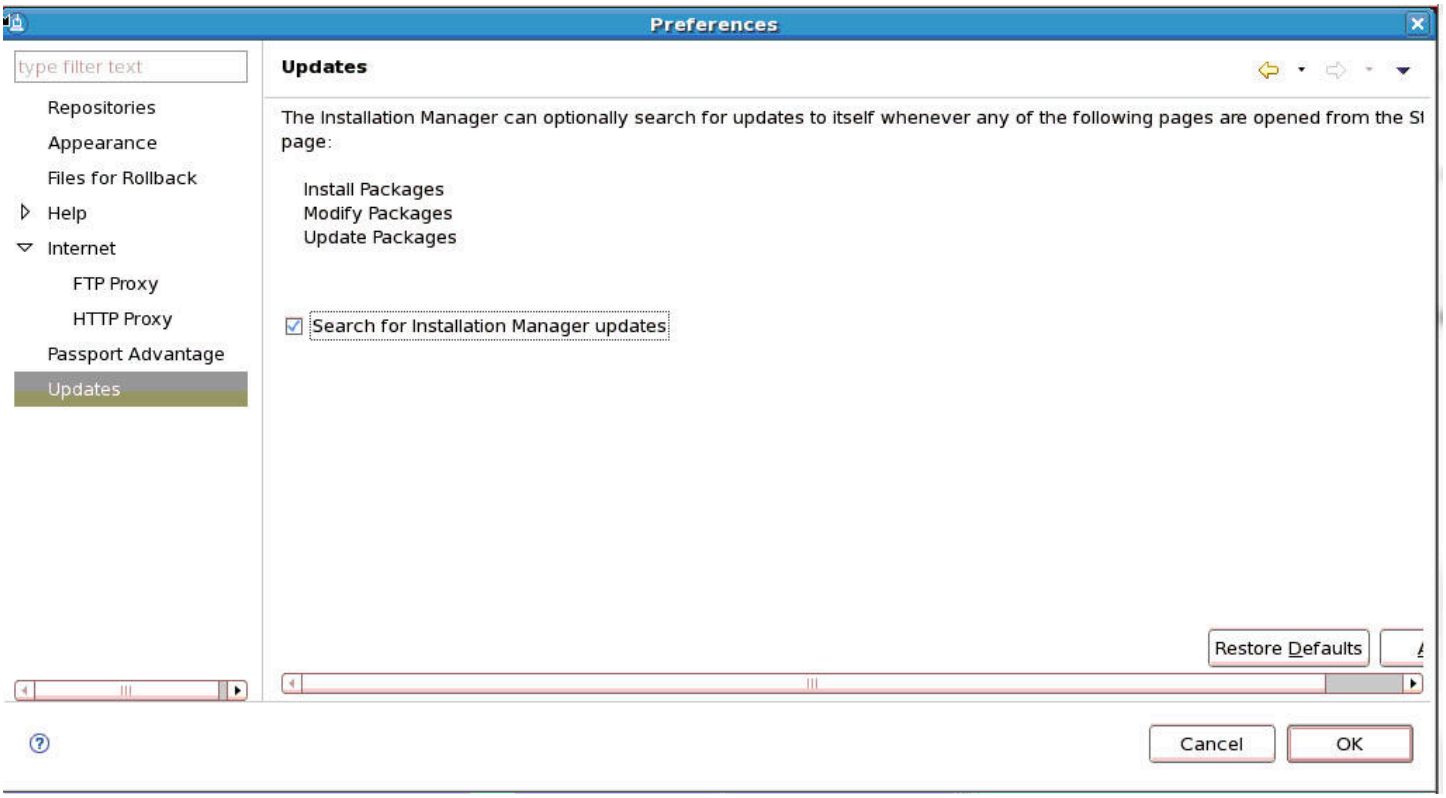
9. A progress bar will appear along the bottom of the screen.



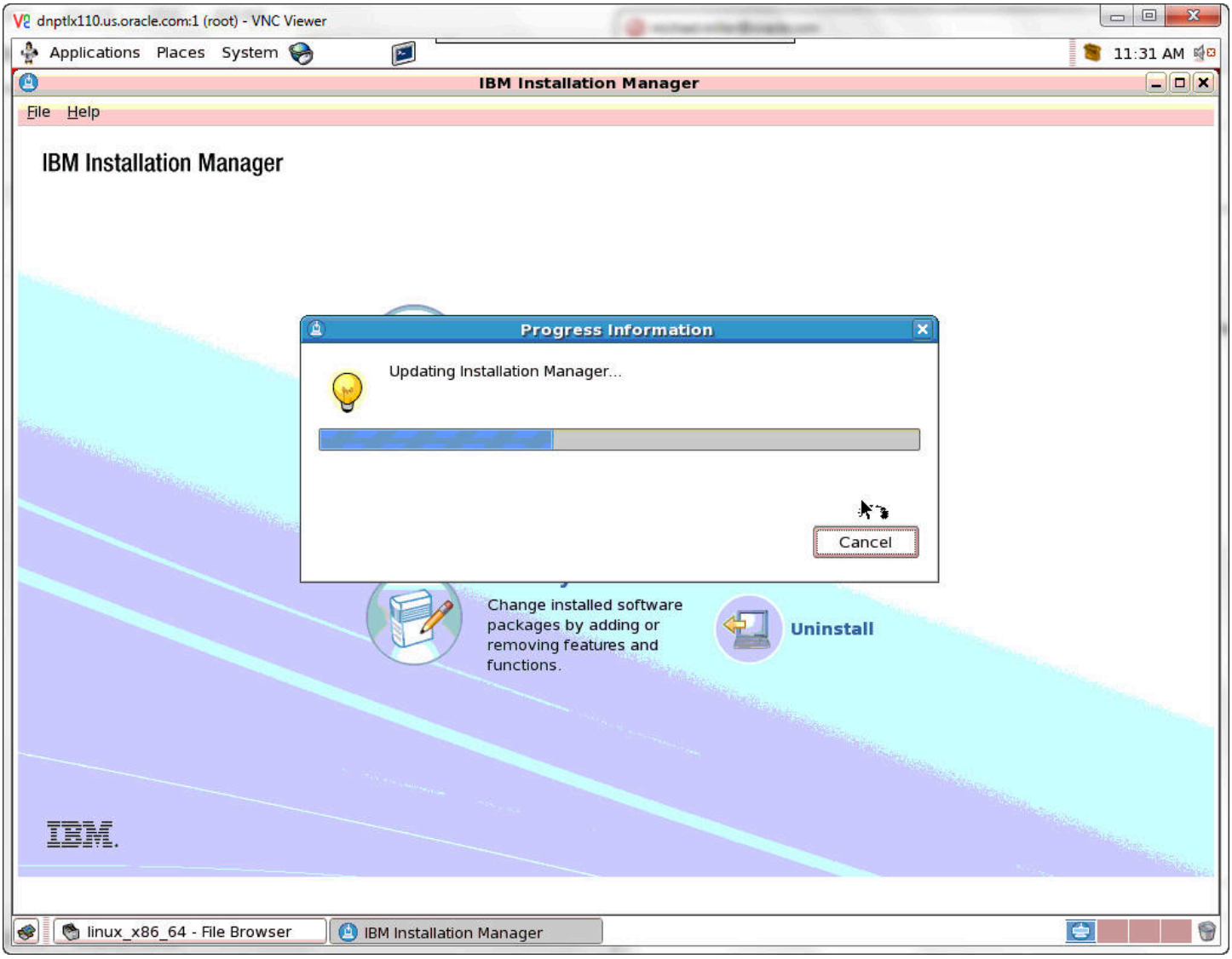
10. An Install Packages screen will appear providing a summary of the installed packages. Click the Restart Installation Manager button to launch the Installation Manager and to start installation of any additional packages.


dnptlx110.us.oracle.com:1 (root) - VNC Viewer
Applications
Places
System
11:28 AM
IBM Installation Manager
File
Help
IBM Installation Manager
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
IBM
linux_x86_64 - File Browser
IBM Installation Manager

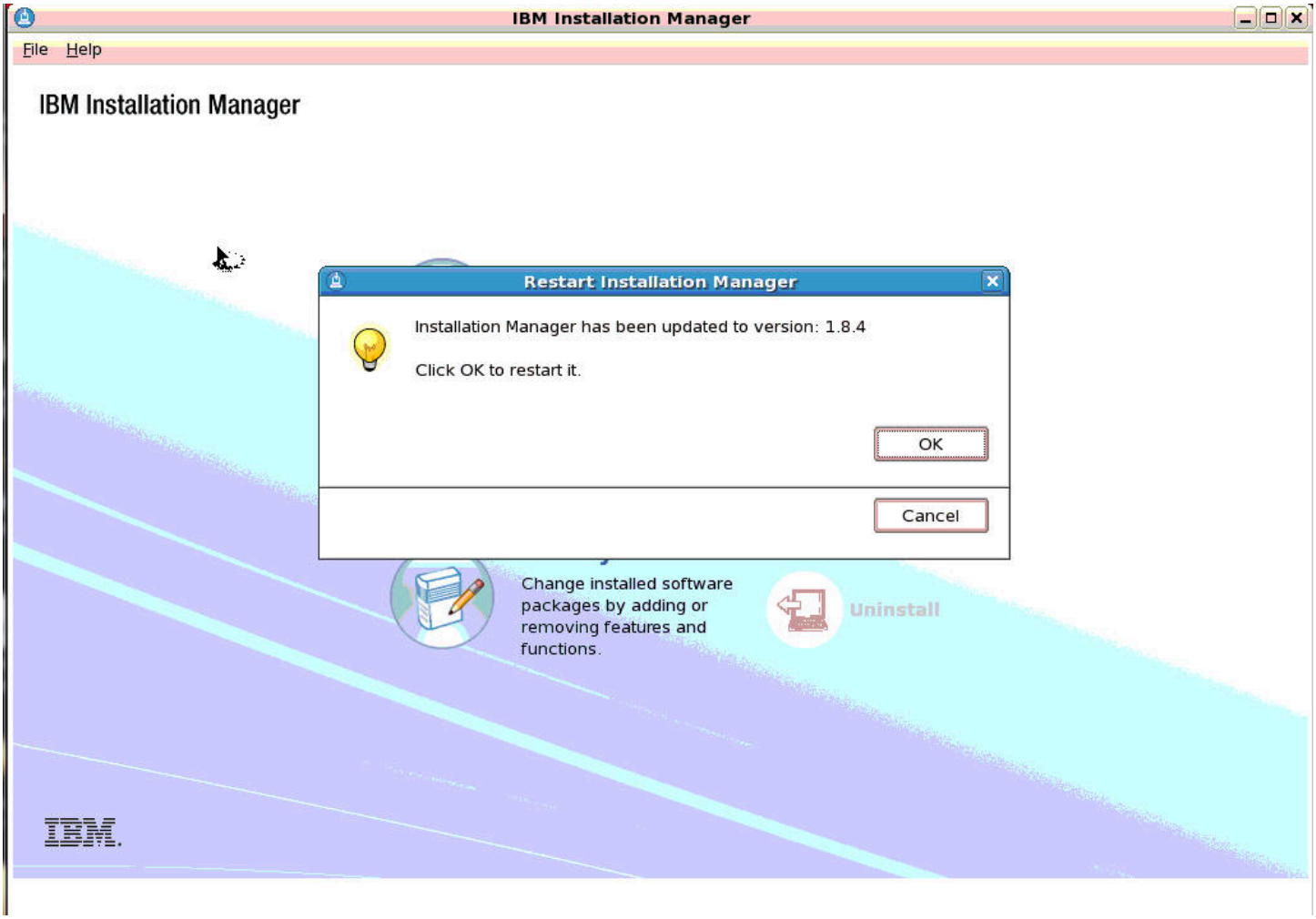
11. If there are no additional software packages to install, click Update to proceed.



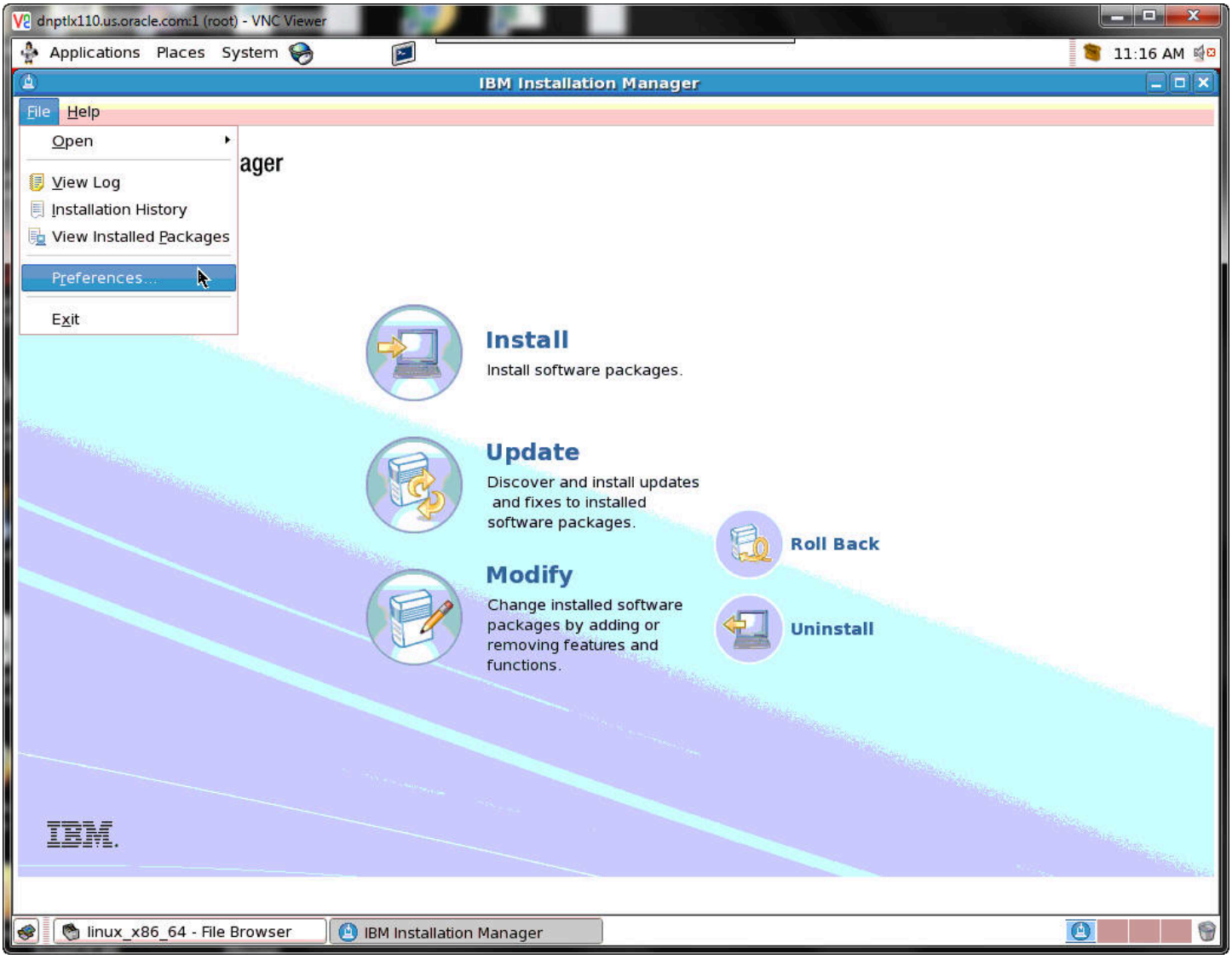
12. Select the checkbox for Search for Installation Manager updates and then click OK.



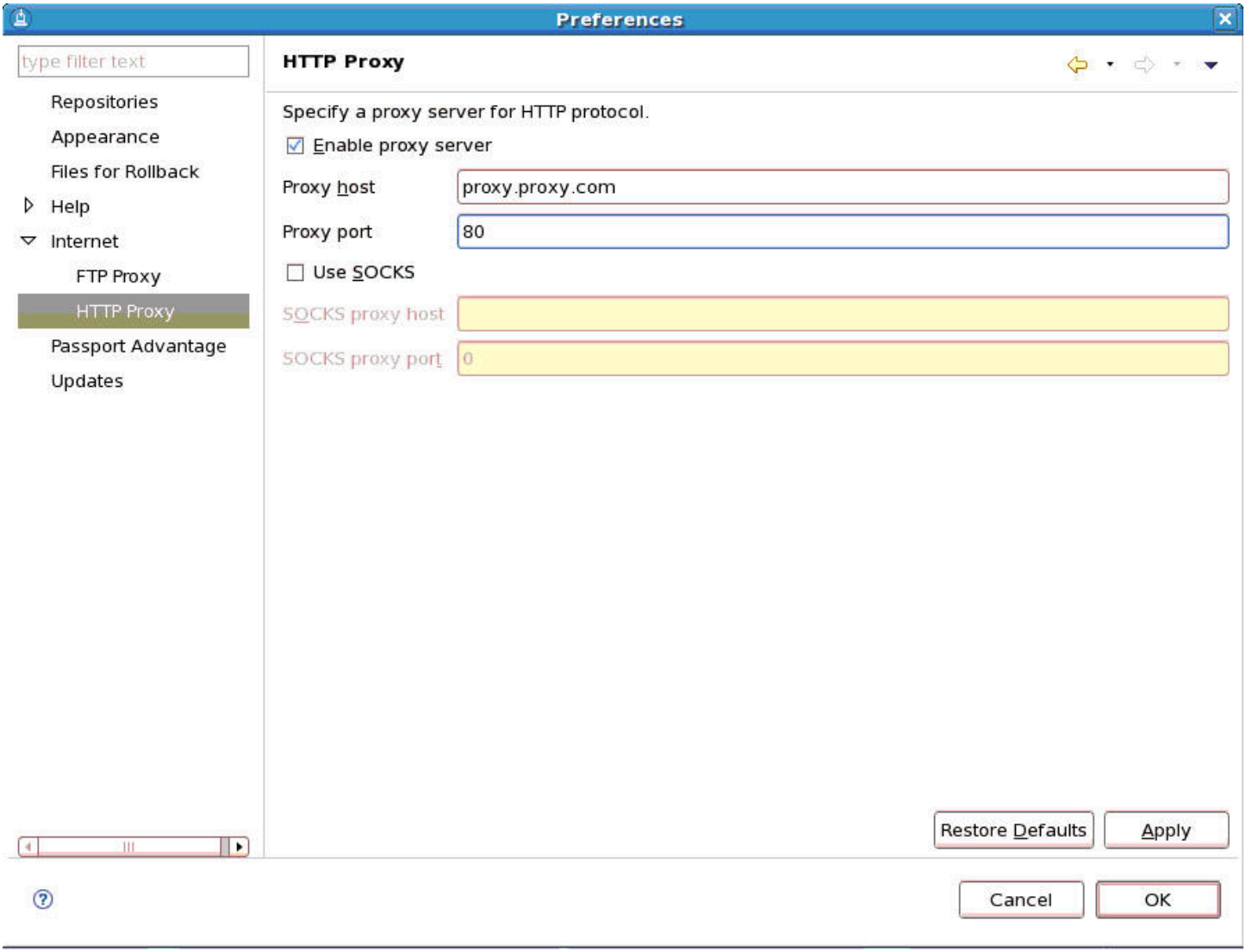
13. A popup window with a progress bar will appear.



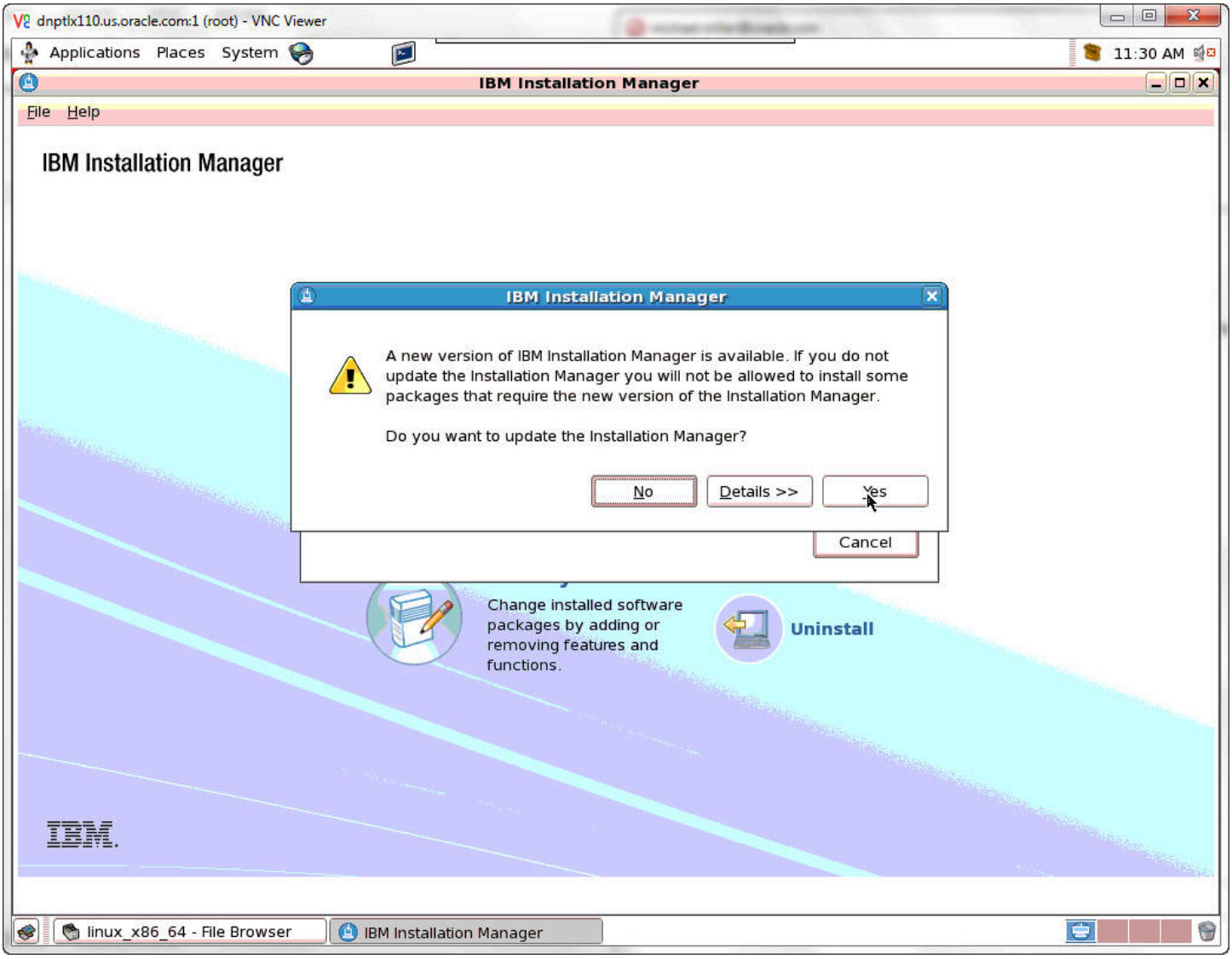
14. When the Installation Manager has been updated, a popup message will appear. Click OK to restart Installation Manager in the newly installed version.


dnptlx110.us.oracle.com:1 (root) - VNC Viewer
Applications
Places
System
11:16 AM
IBM Installation Manager
File
Help
Open
View Log
Installation History
View Installed Packages
Preferences...
Exit
ager
Install
Install software packages.
Update
Discover and install updates and fixes to installed software packages.
Roll Back
Modify
Change installed software packages by adding or removing features and functions.
Uninstall
IBM
linux_x86_64 - File Browser
IBM Installation Manager

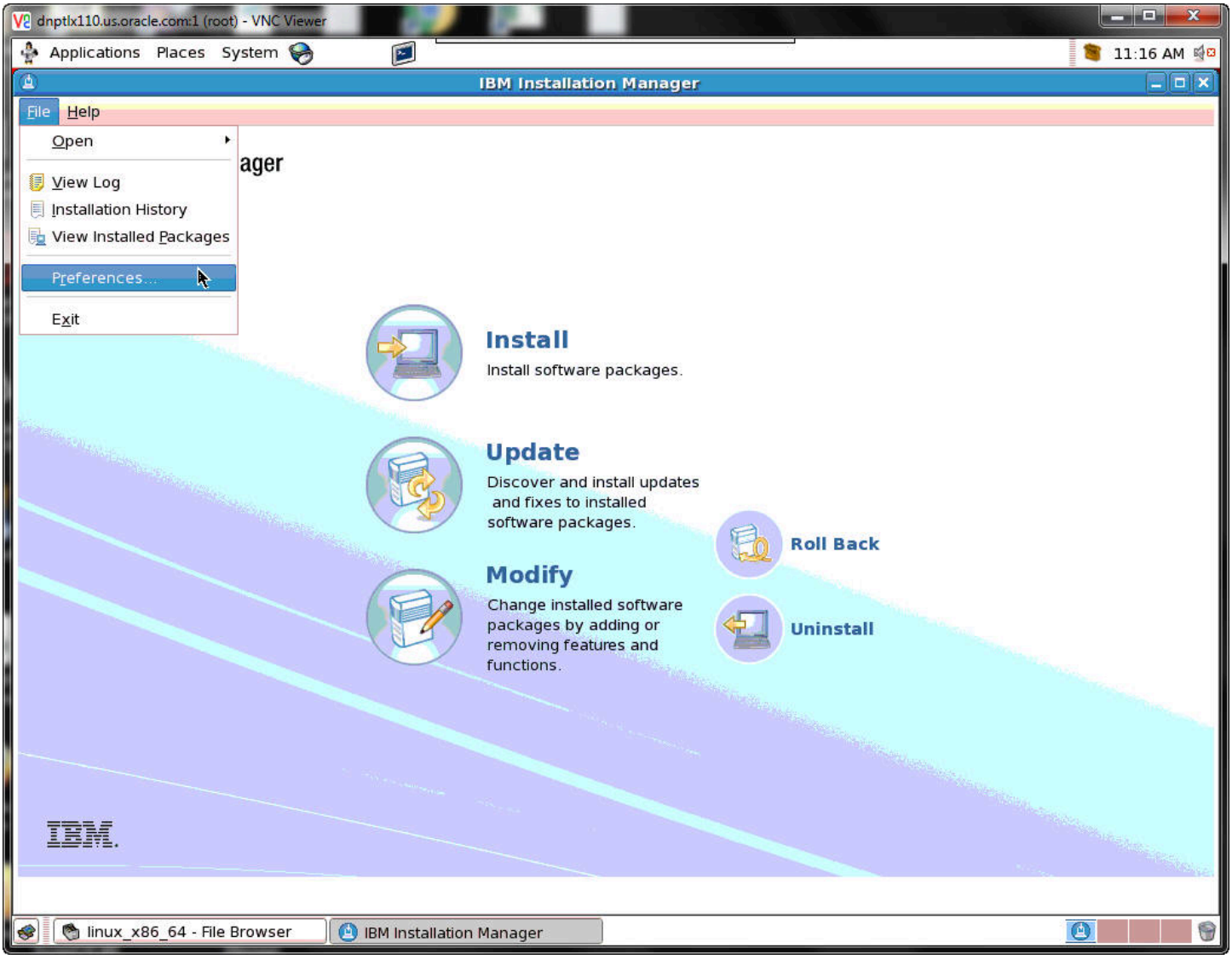
15. Select File | Preferences.



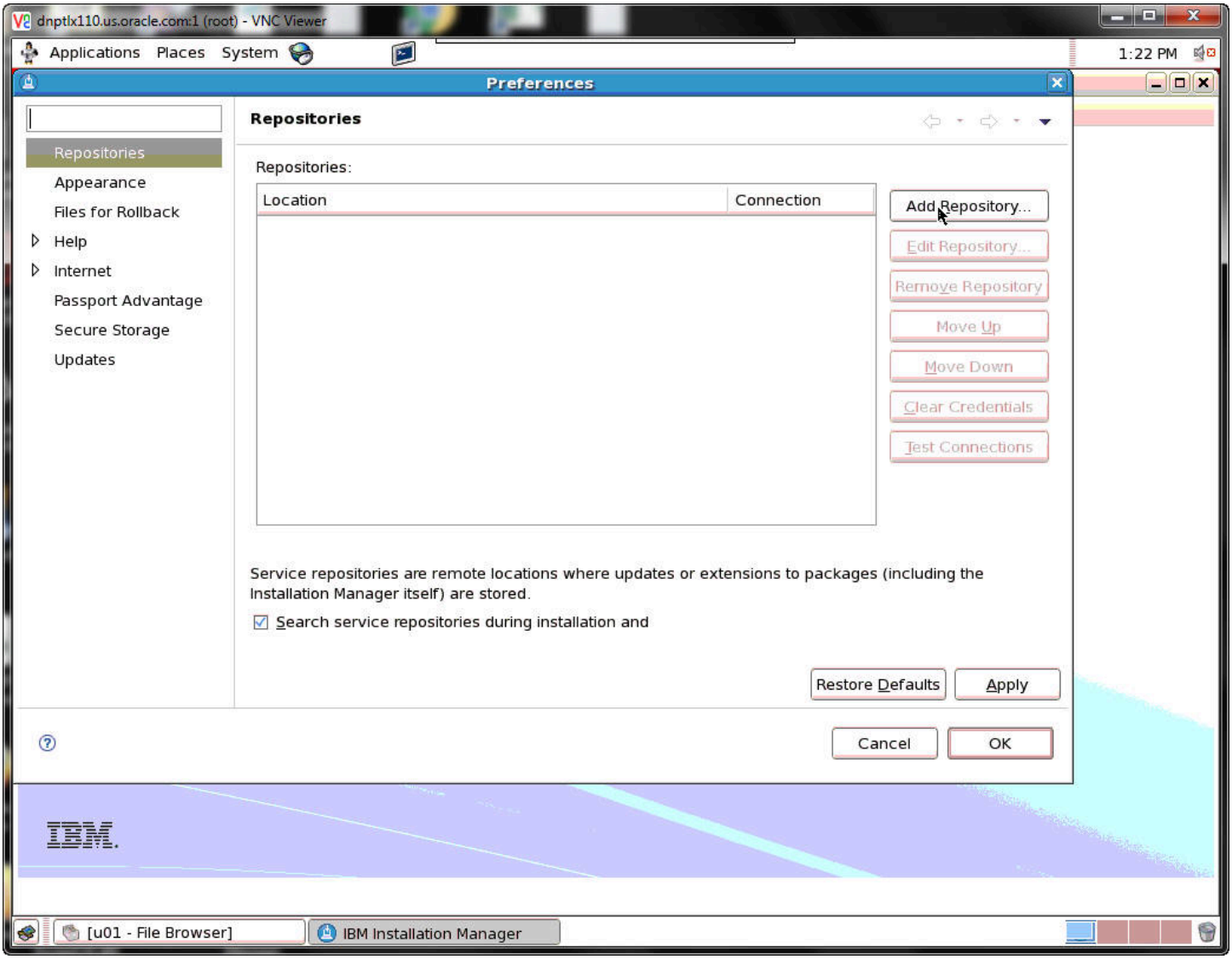
16. Select the checkbox for Enable proxy server, enter the proxy information and click OK.



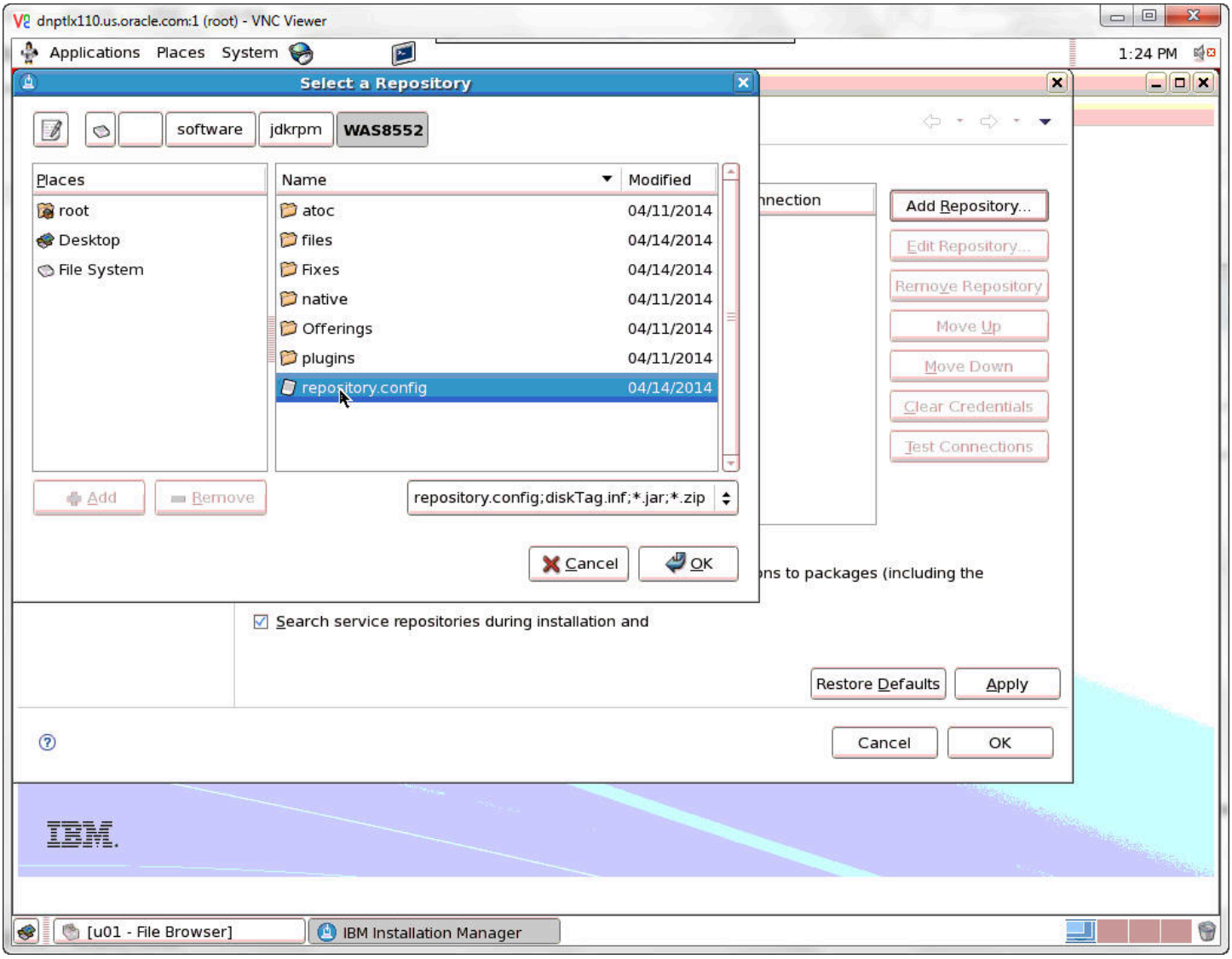
17. If a newer version of the IBM Installation Manager is required, a popup window will appear giving you the option to update Installation Manager. Click Yes.


dnptlx110.us.oracle.com:1 (root) - VNC Viewer
Applications
Places
System
11:16 AM
IBM Installation Manager
File
Help
Open
View Log
Installation History
View Installed Packages
Preferences...
Exit
ager
Install
Install software packages.
Update
Discover and install updates and fixes to installed software packages.
Roll Back
Modify
Change installed software packages by adding or removing features and functions.
Uninstall
IBM
linux_x86_64 - File Browser
IBM Installation Manager

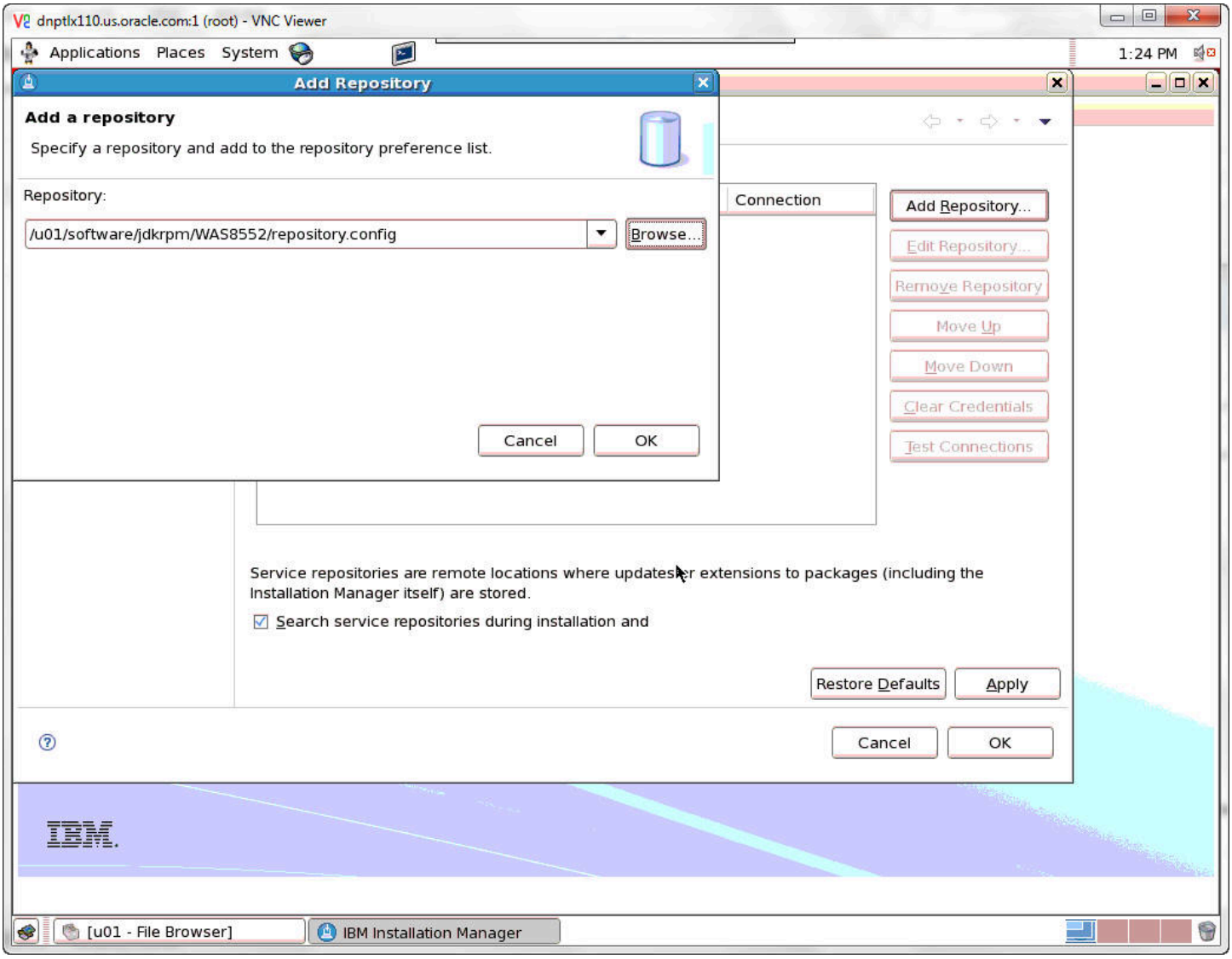
18. Select File | Preferences.



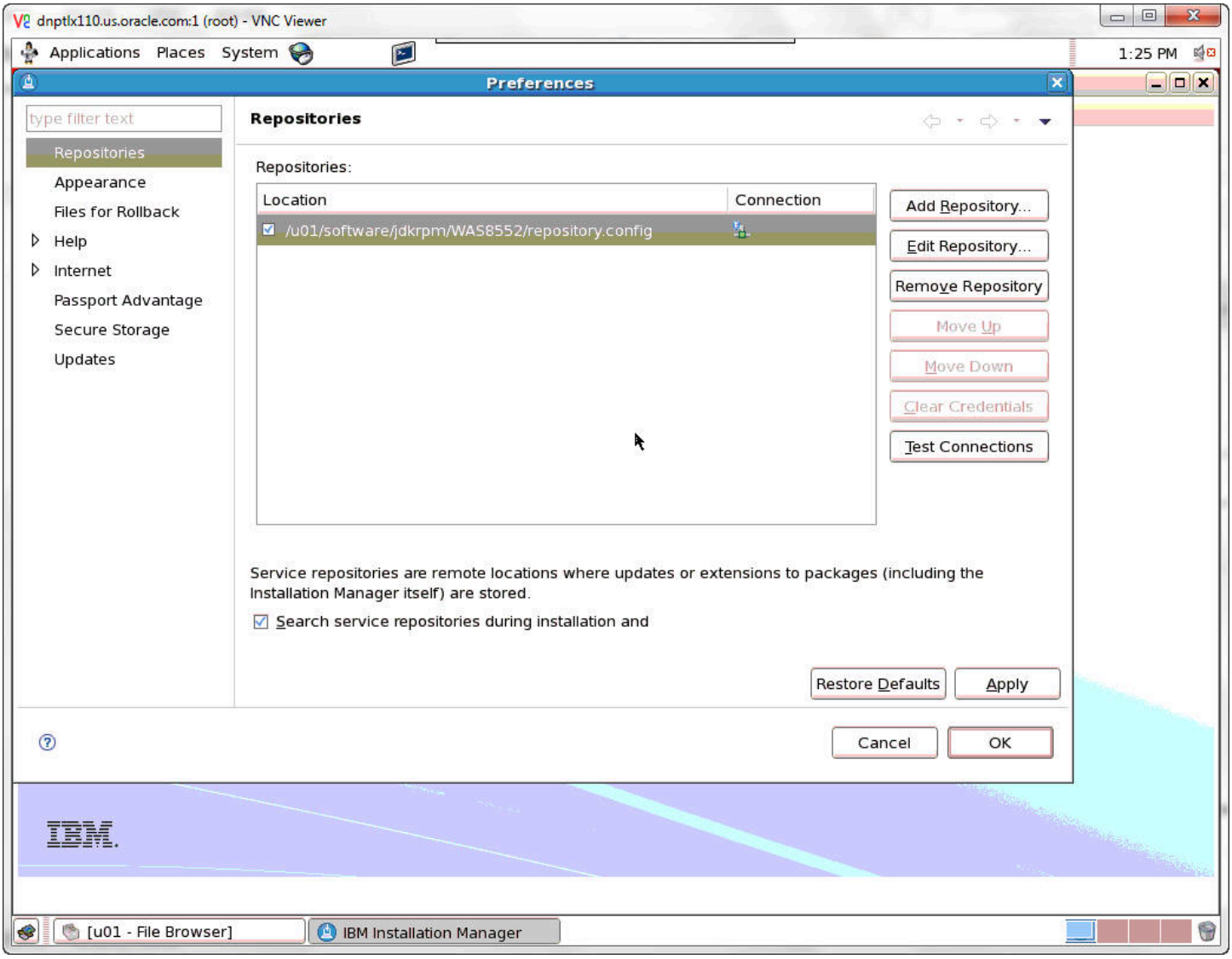
19. Click the Add Repository button.



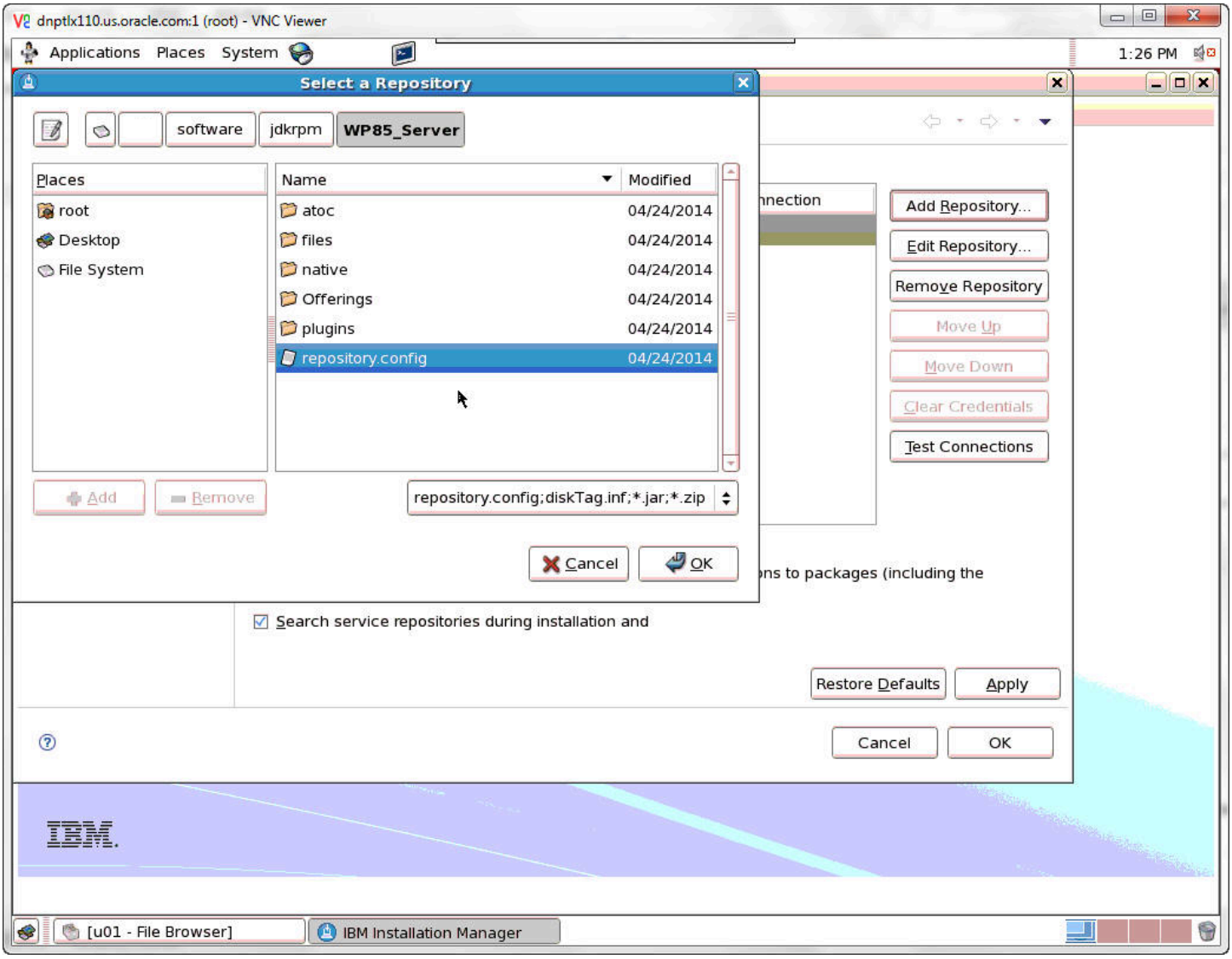
20. Select a Repository by clicking on repository.config. and then click OK.



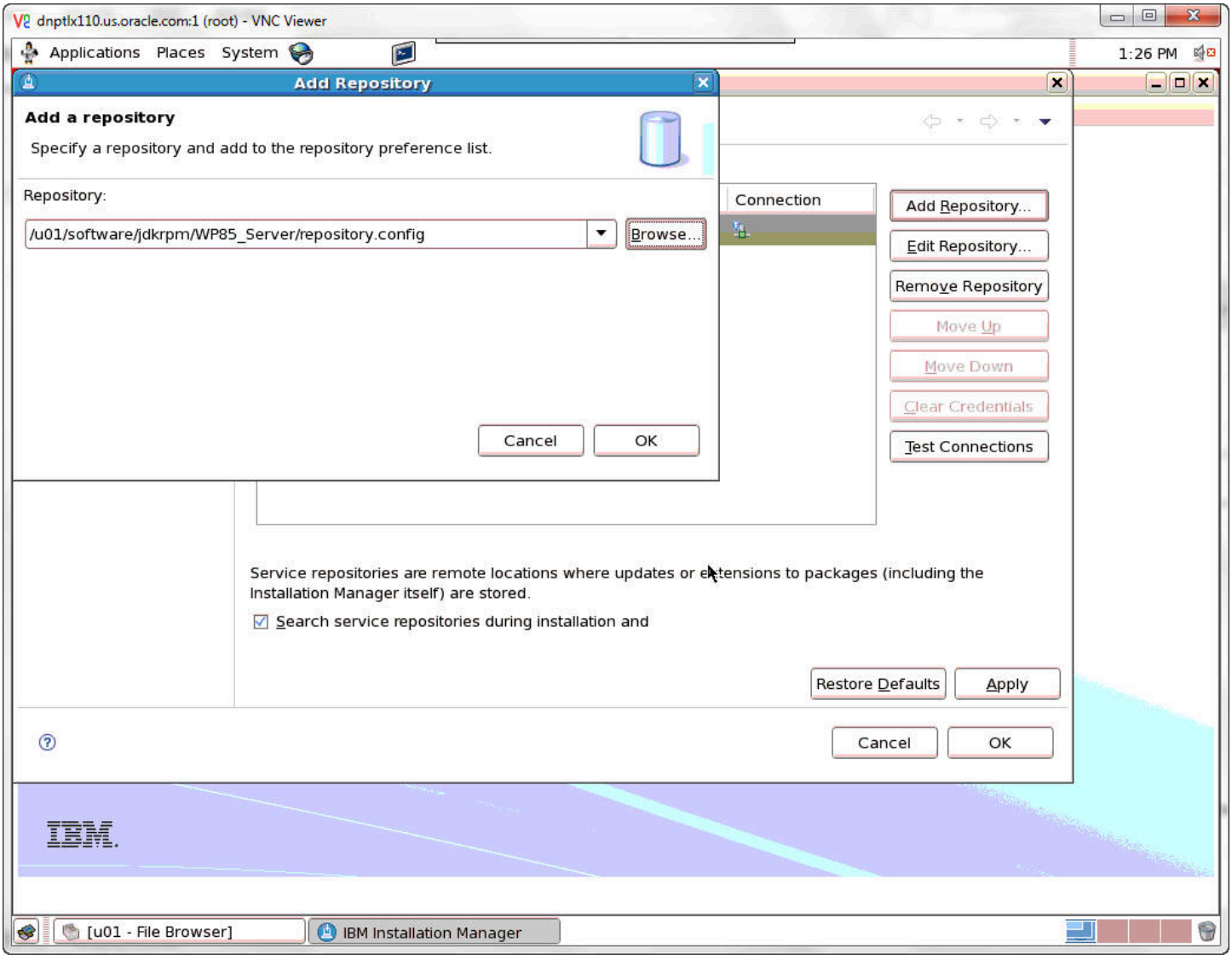
21. Enter the repository path to add a repository and then click OK.



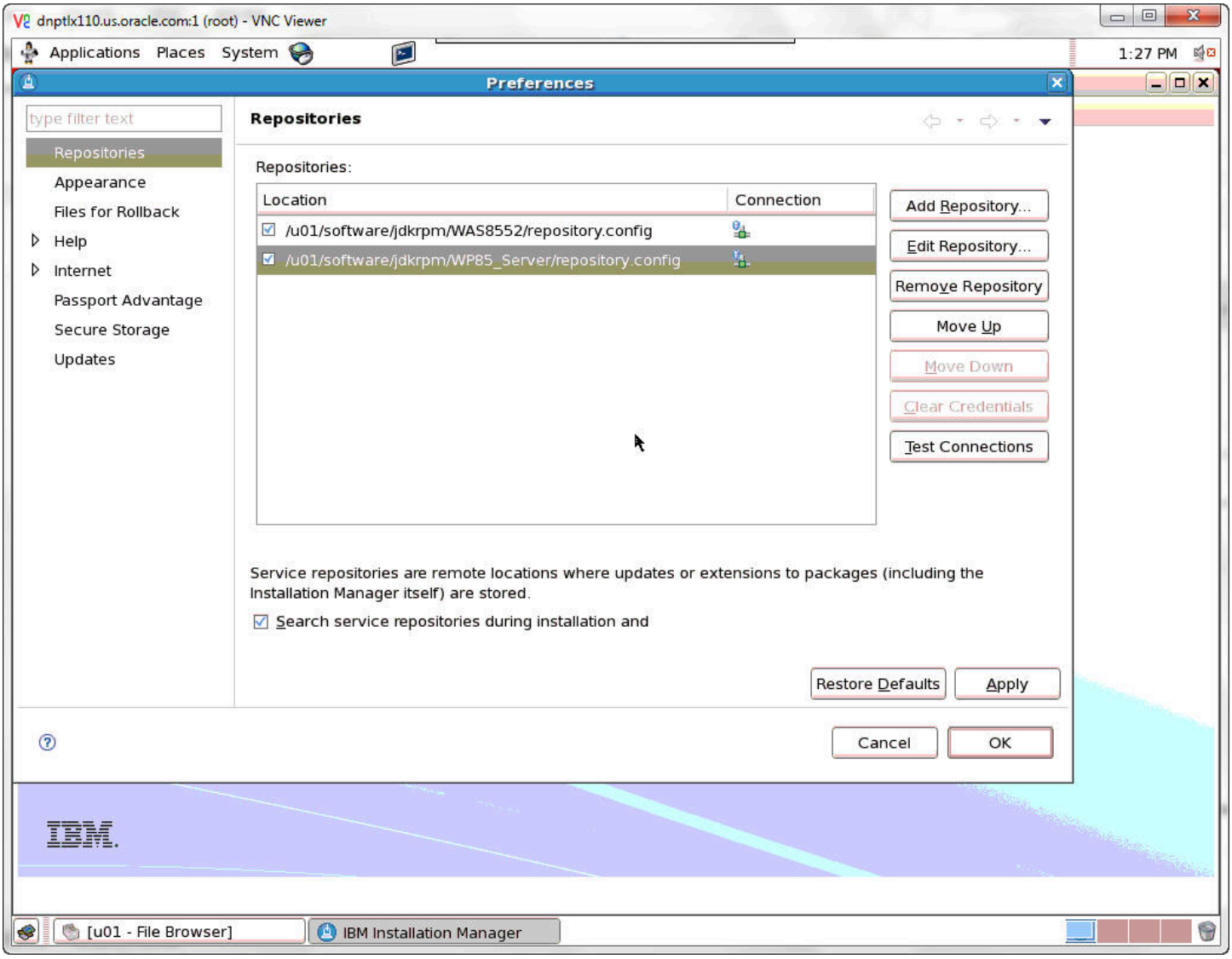
22. Repeat the process to add another repository. Click the Add Repository button.



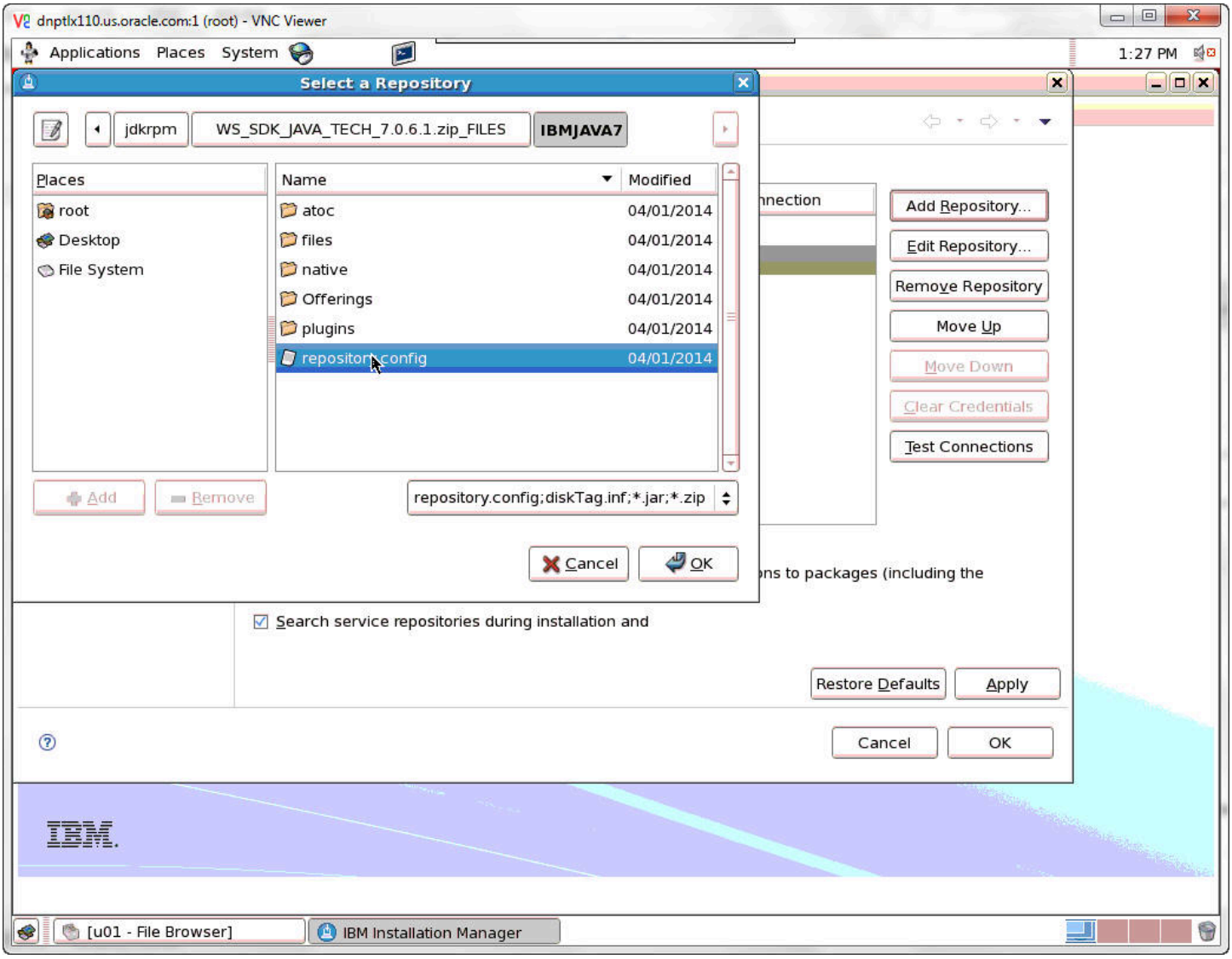
23. Select repository.config. and then click OK.



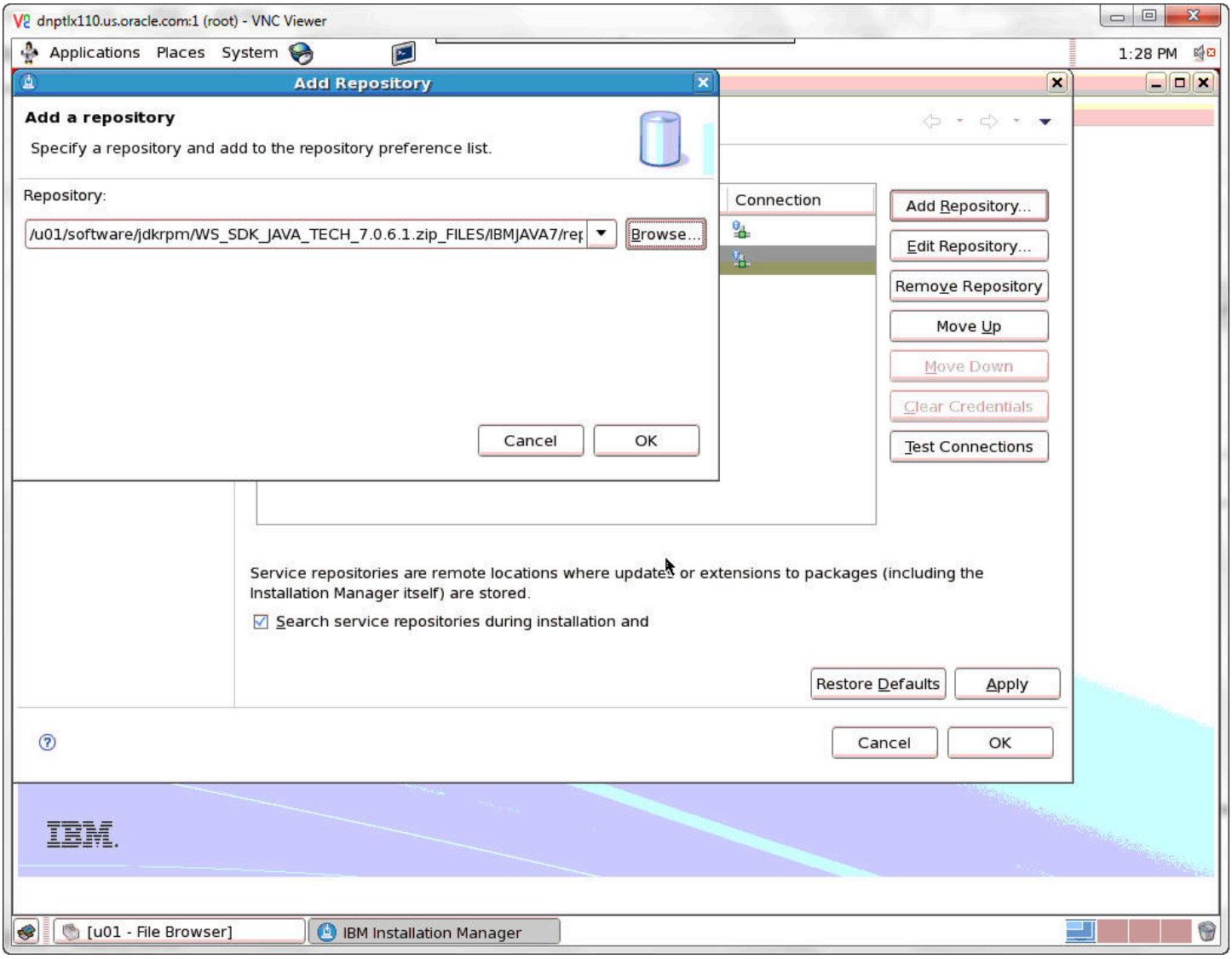
24. Enter the repository path to add a repository and then click OK.



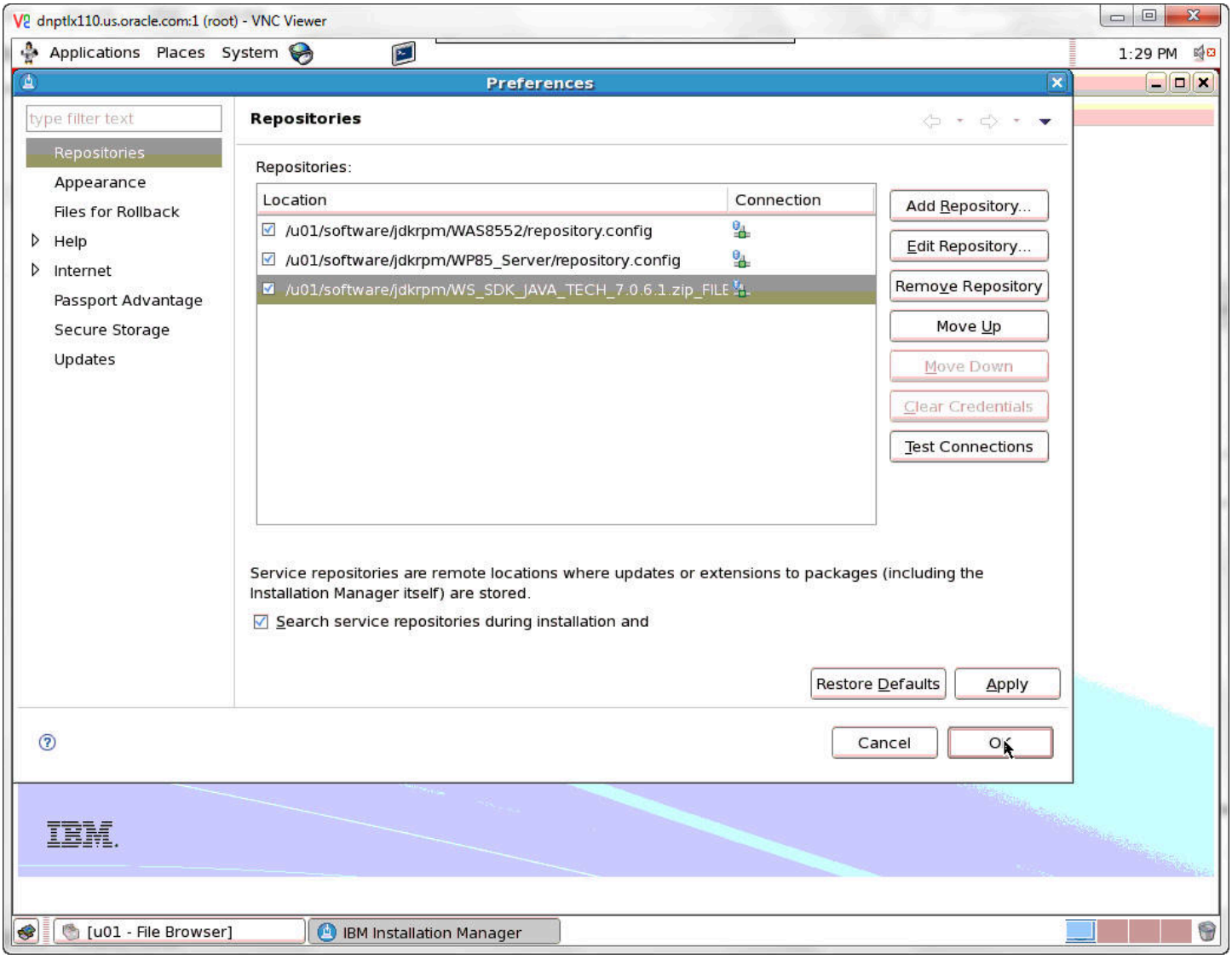
25. Repeat the process to add another repository. Click the Add Repository button.



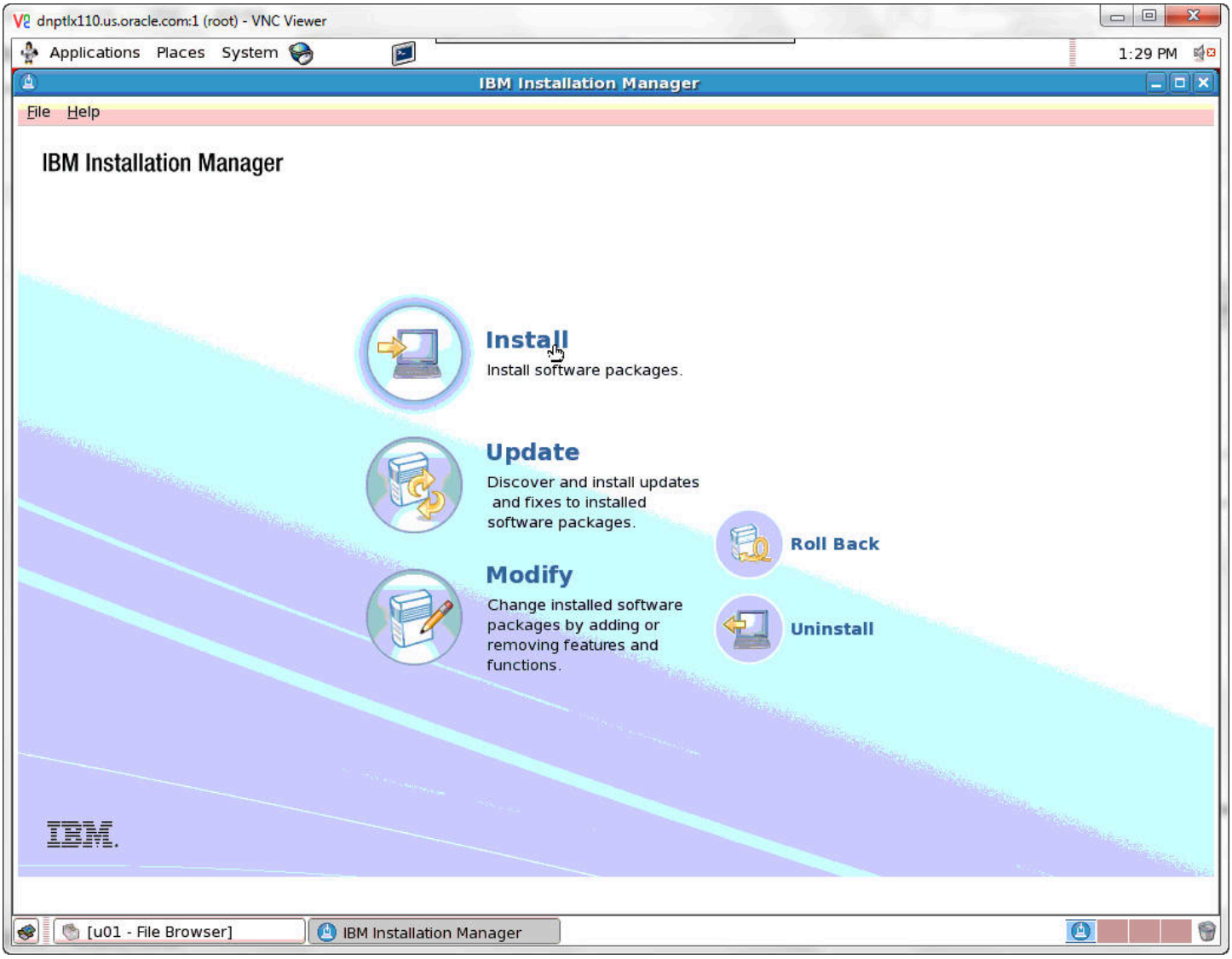
26. Select repository.config. and then click OK.



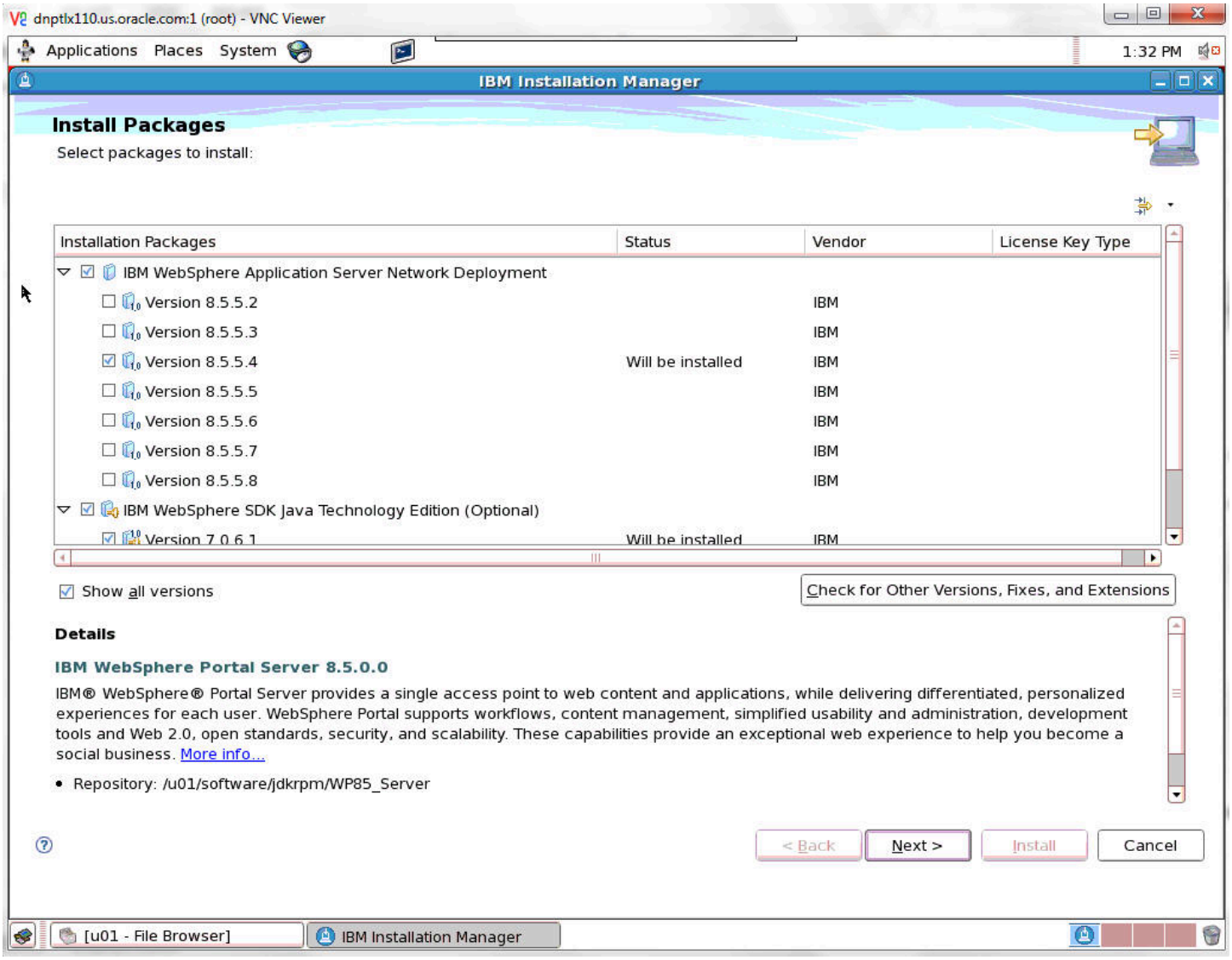
27. Enter the repository path to add a repository and then click OK.



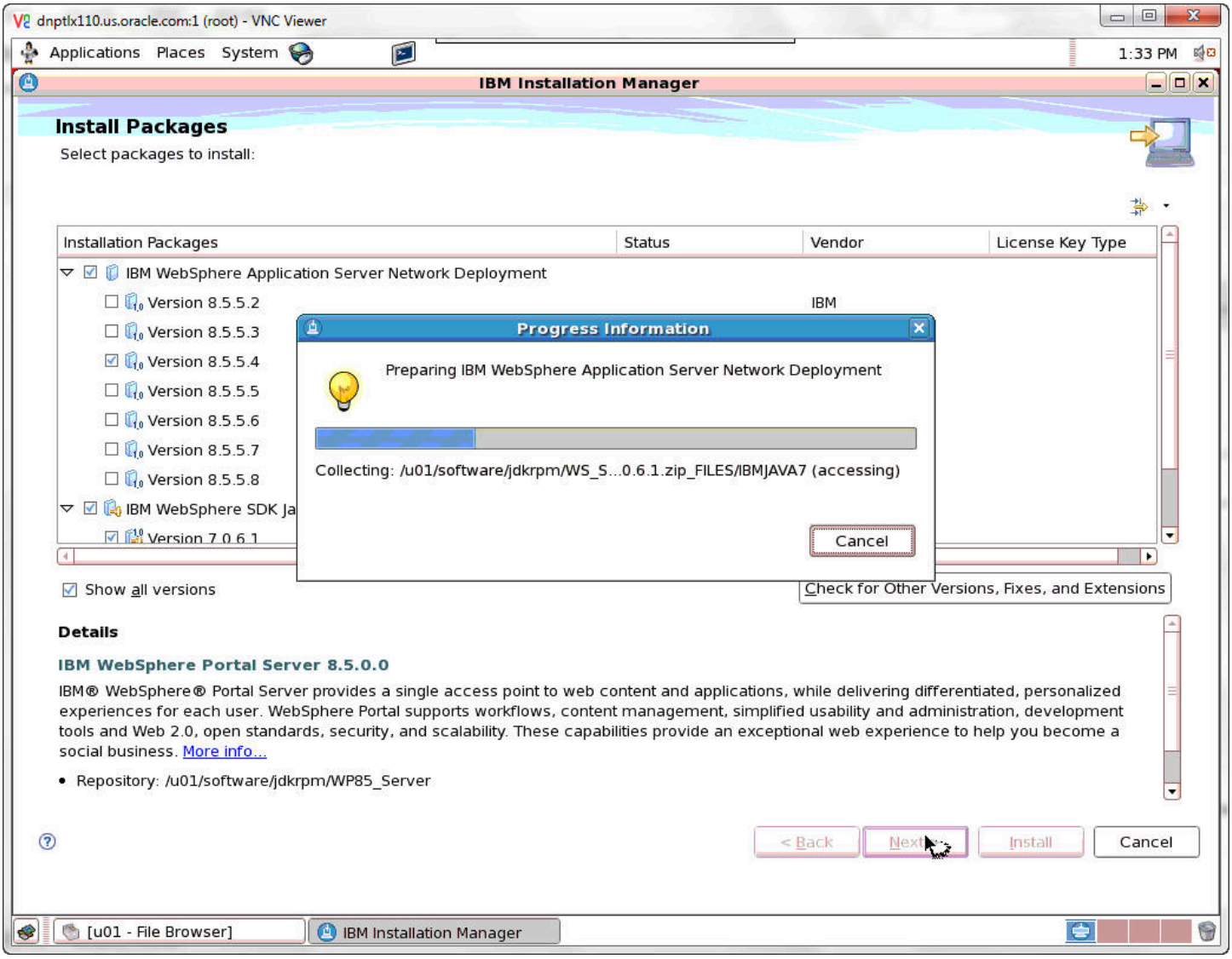
28. Add any additional repositories. When finished, click OK.



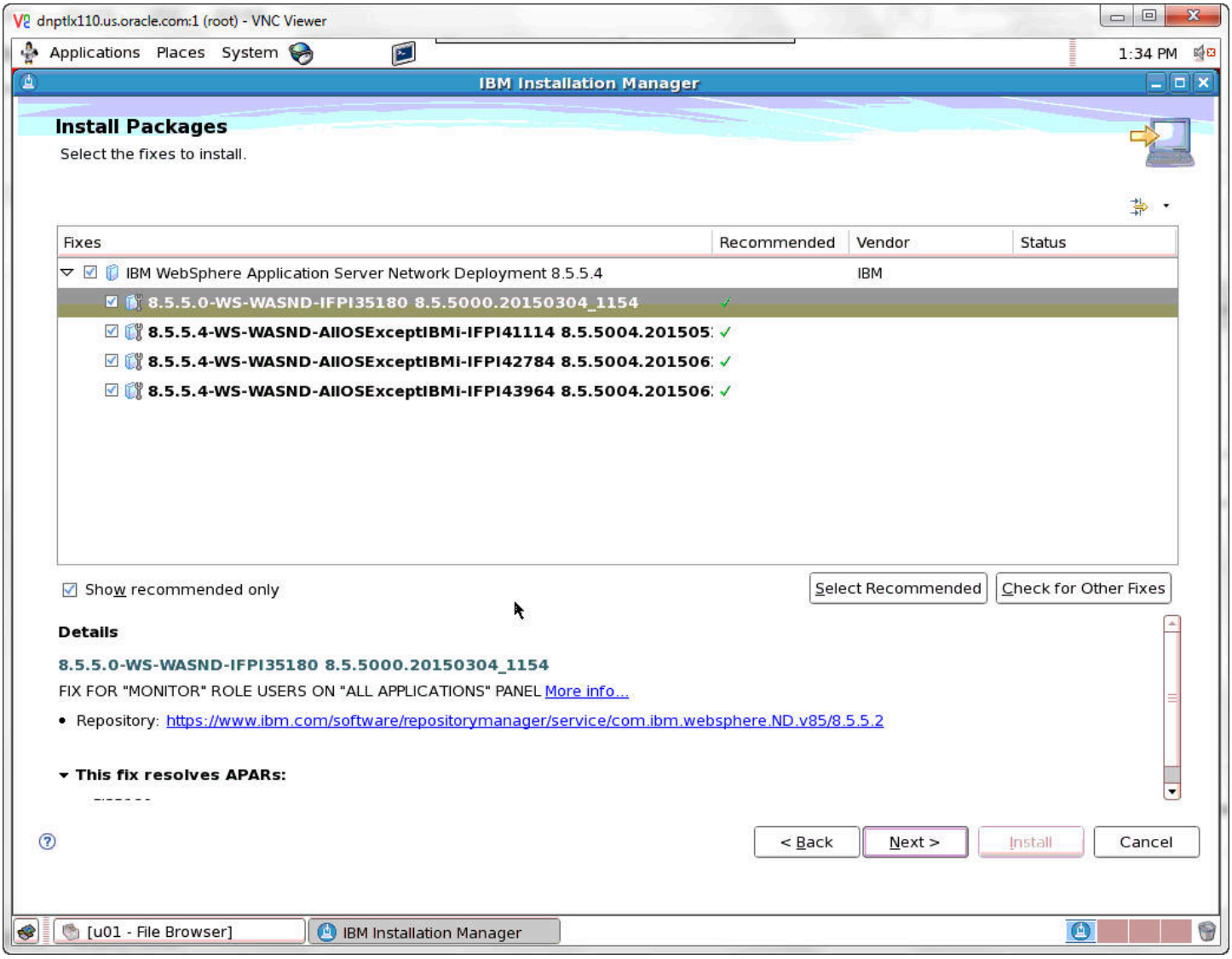
29. Select Install.



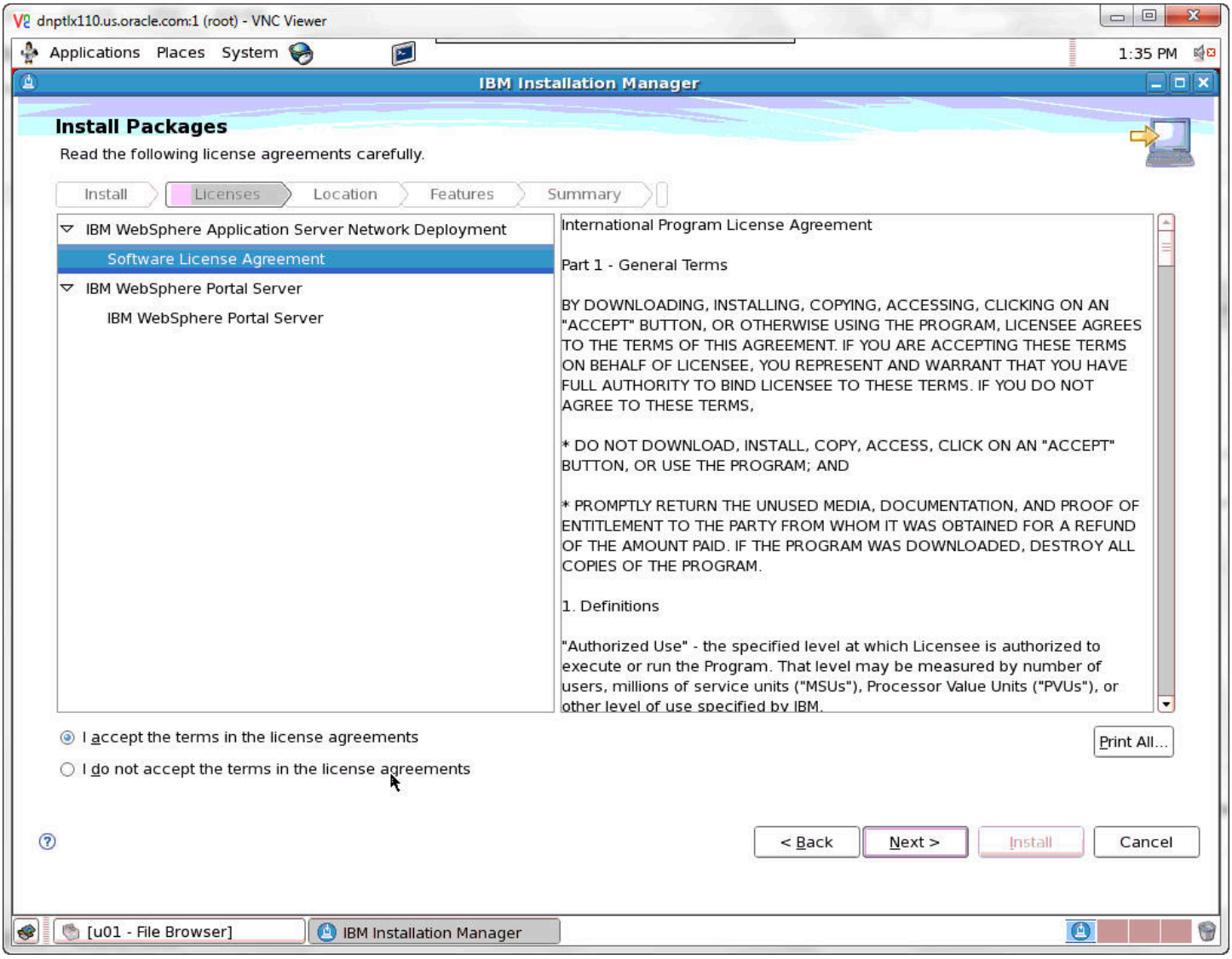
30. Select the packages and the versions to be installed.


dnptlx110.us.oracle.com:1 (root) - VNC Viewer
Applications Places System
1:33 PM
IBM Installation Manager
Install Packages
Select packages to install:
Installation Packages
Status
Vendor
License Key Type
IBM WebSphere Application Server Network Deployment
Version 8.5.5.2
Version 8.5.5.3
Version 8.5.5.4
Version 8.5.5.5
Version 8.5.5.6
Version 8.5.5.7
Version 8.5.5.8
IBM WebSphere SDK Ja
Version 7.0.6.1
IBM
Progress Information
Preparing IBM WebSphere Application Server Network Deployment
Collecting: /u01/software/jdkrpm/WS_S...0.6.1.zip_FILES/IBMJAVA7 (accessing)
Cancel
Show all versions
Check for Other Versions, Fixes, and Extensions
Details
IBM WebSphere Portal Server 8.5.0.0
IBM® WebSphere® Portal Server provides a single access point to web content and applications, while delivering differentiated, personalized experiences for each user. WebSphere Portal supports workflows, content management, simplified usability and administration, development tools and Web 2.0, open standards, security, and scalability. These capabilities provide an exceptional web experience to help you become a social business. More info...
Repository: /u01/software/jdkrpm/WP85_Server
< Back
Next >
Install
Cancel
[u01 - File Browser]
IBM Installation Manager

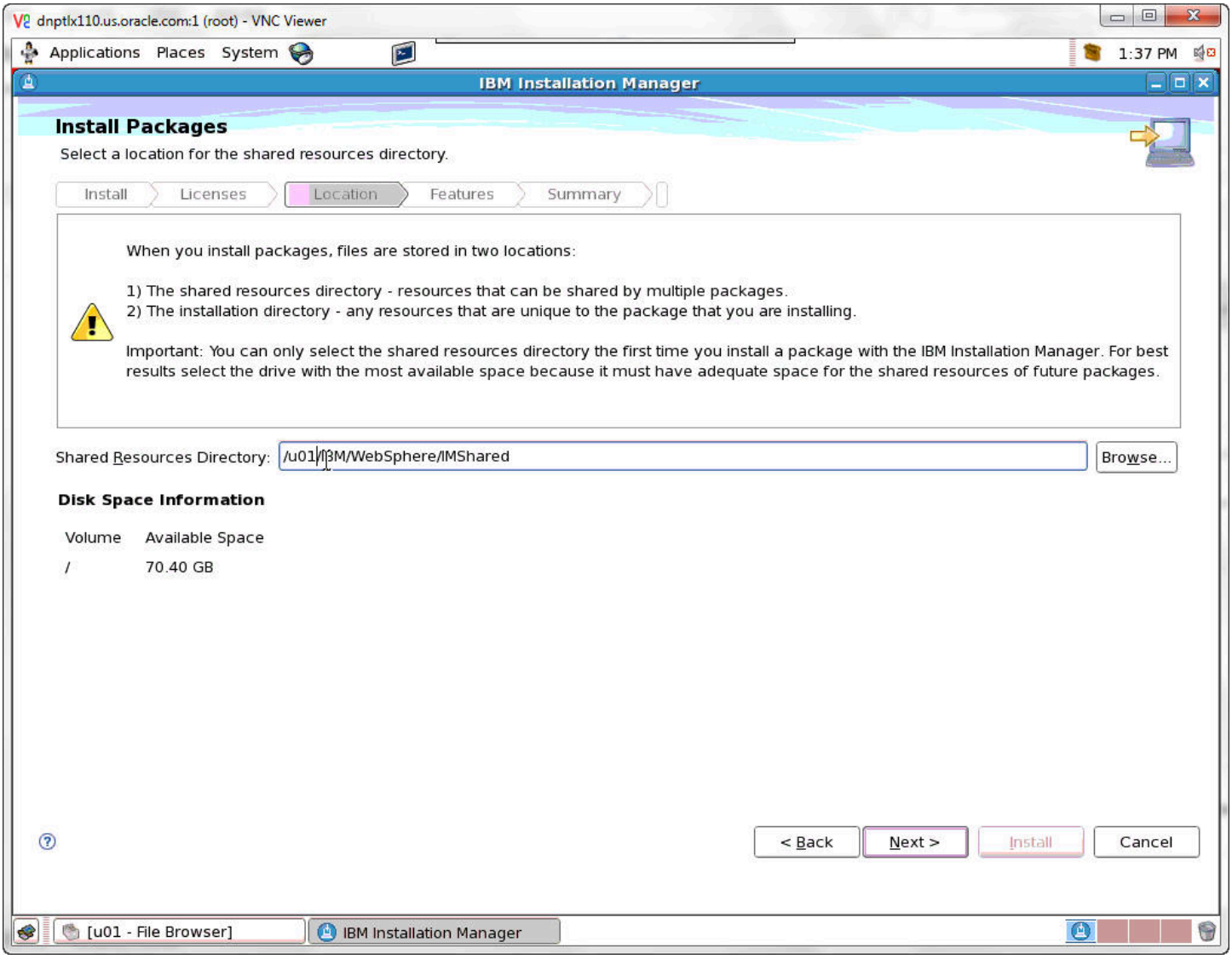
31. A popup Progress Information window will appear.



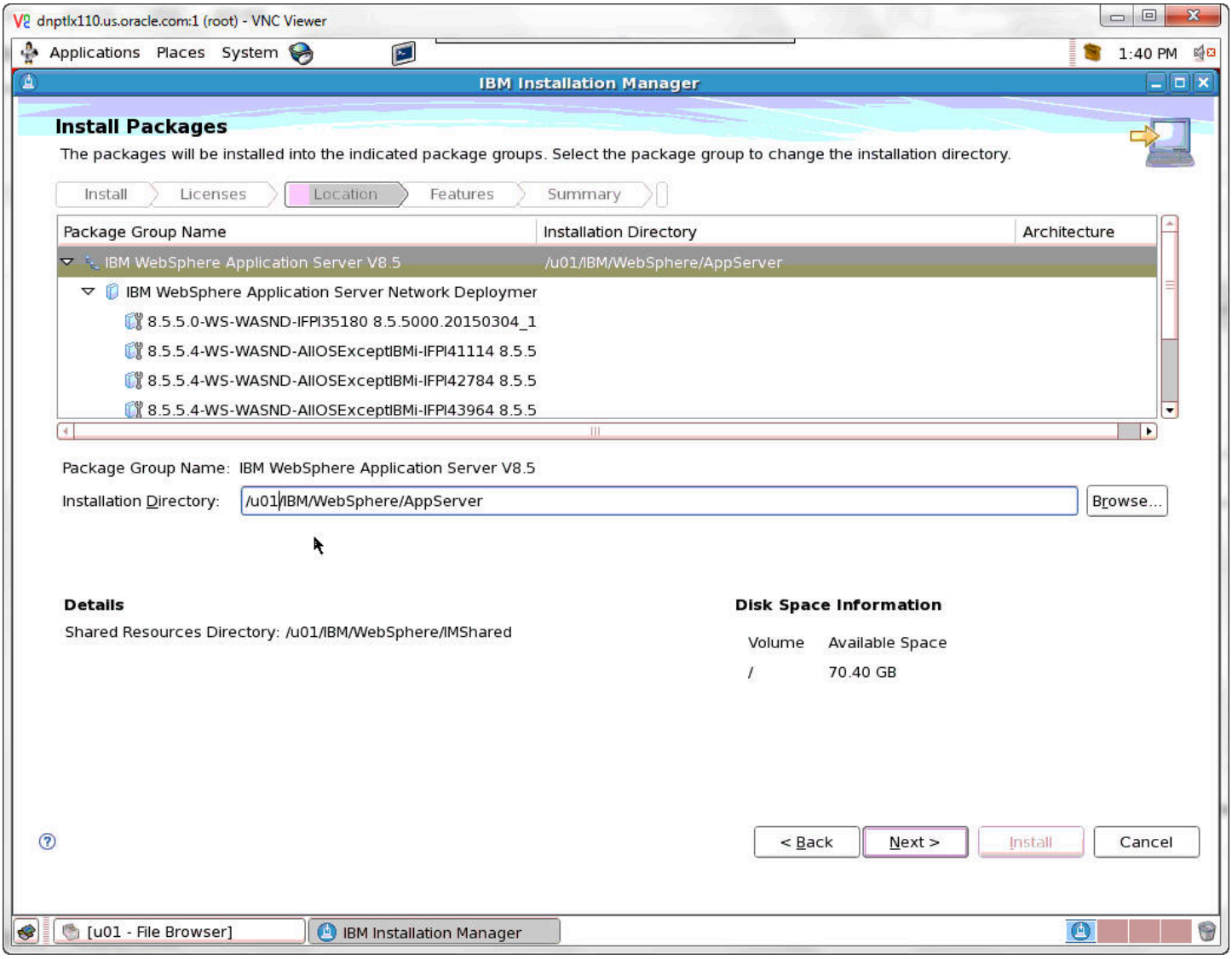
32. Select the fixes to be installed.



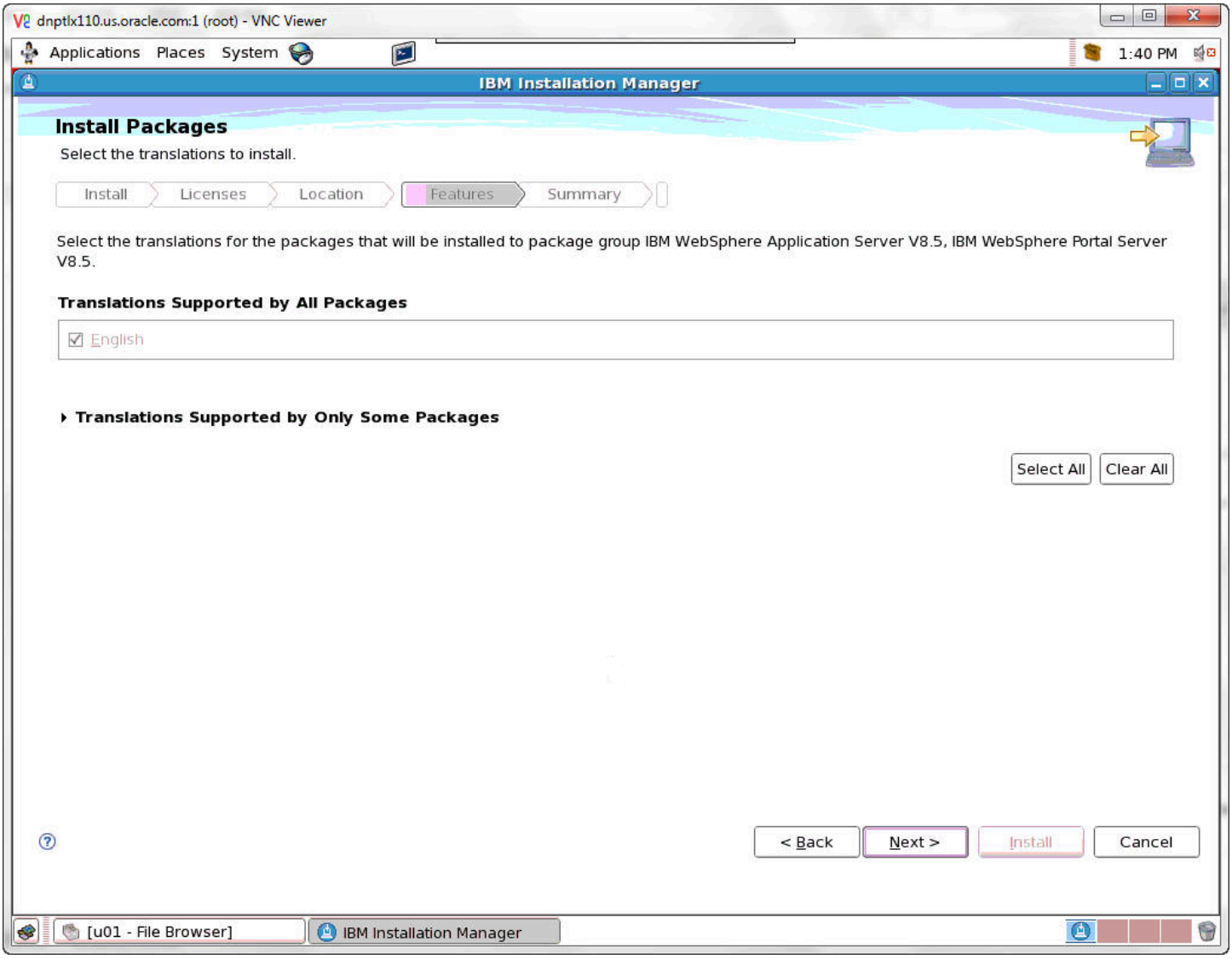
33. Accept the license agreement terms and click the Next button.



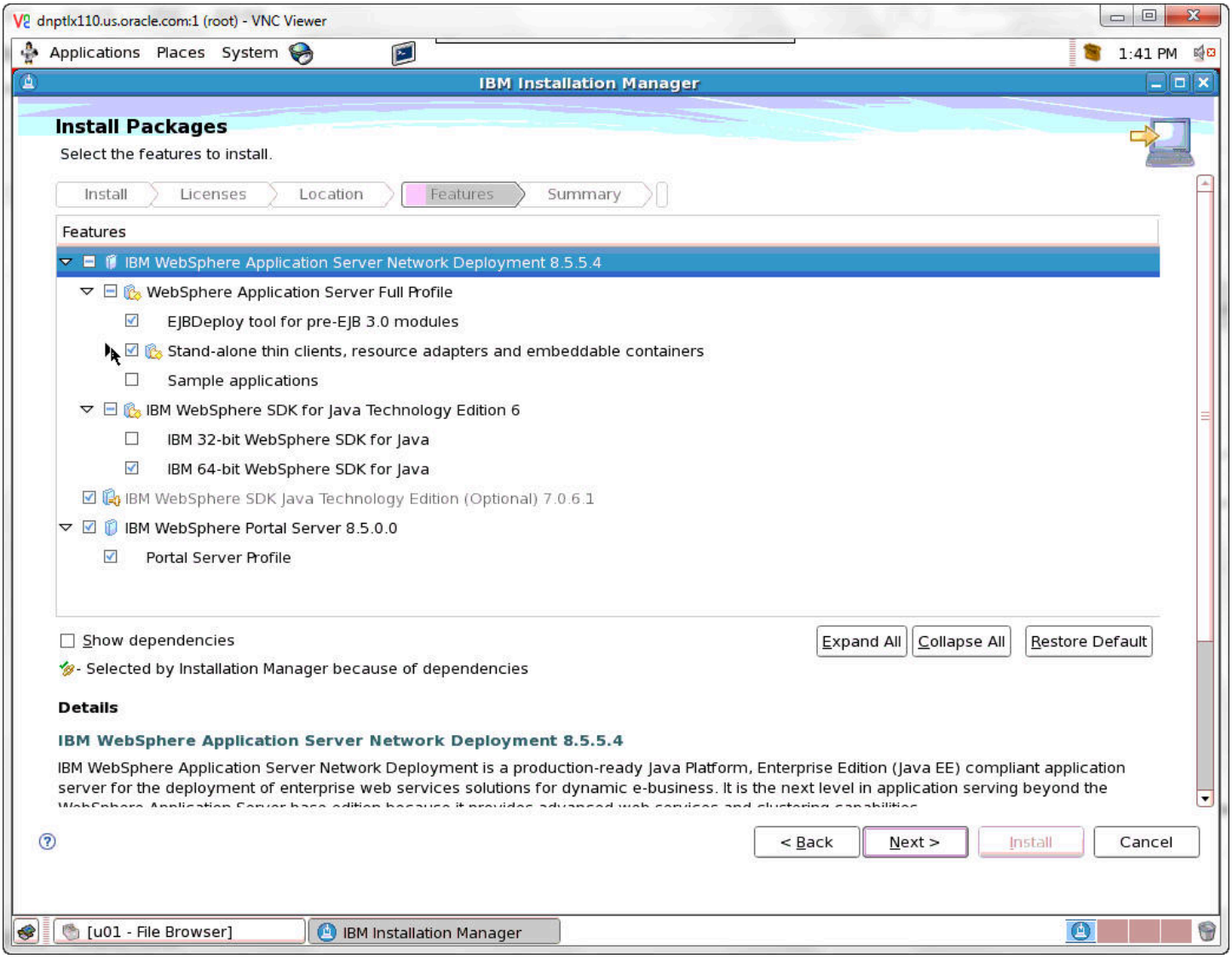
34. If it is not already listed, enter the Shared Resources Directory and click Next.



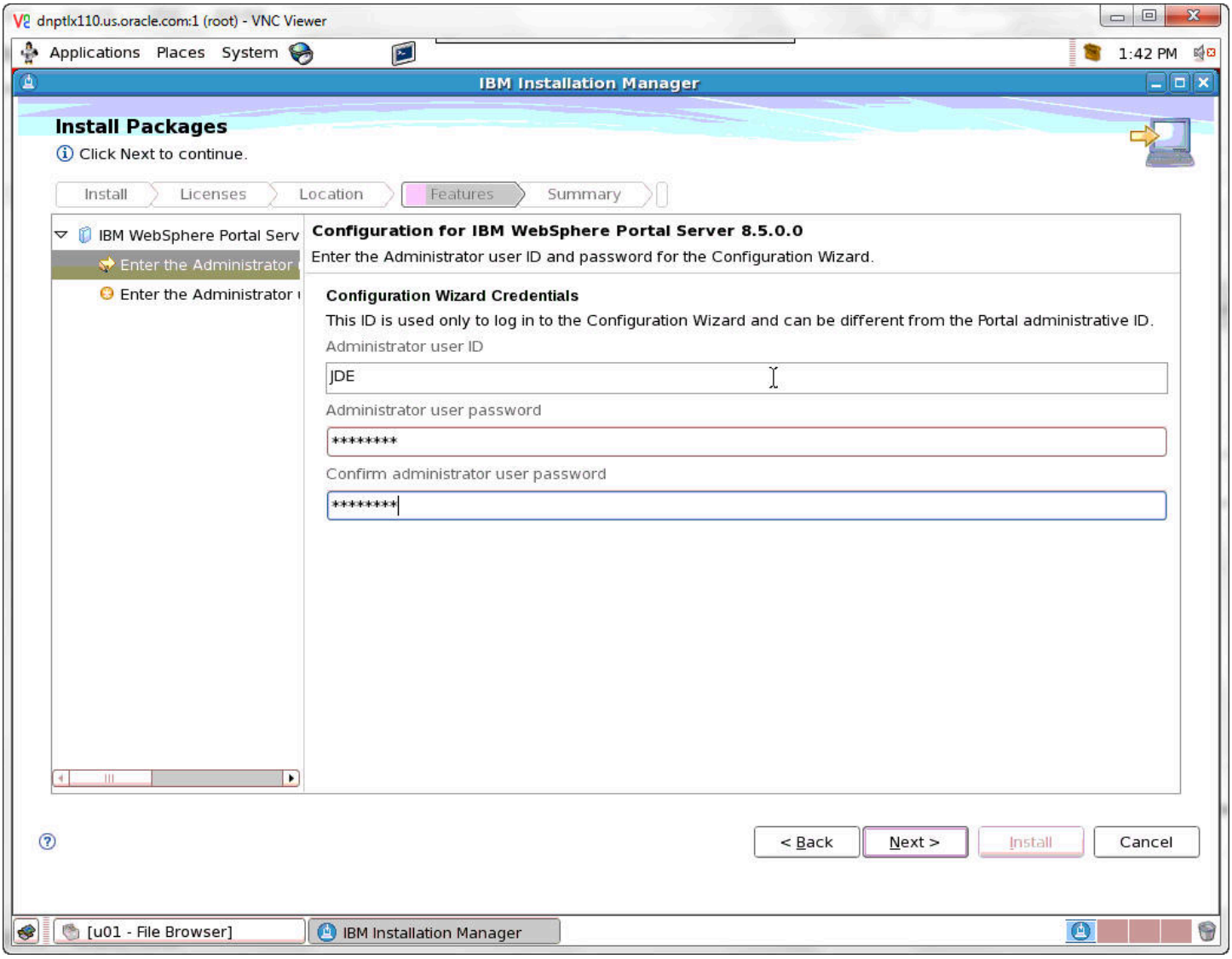
35. If it is not already listed, enter the Installation Directory and click Next.



36. Select the translations to install and click Next.



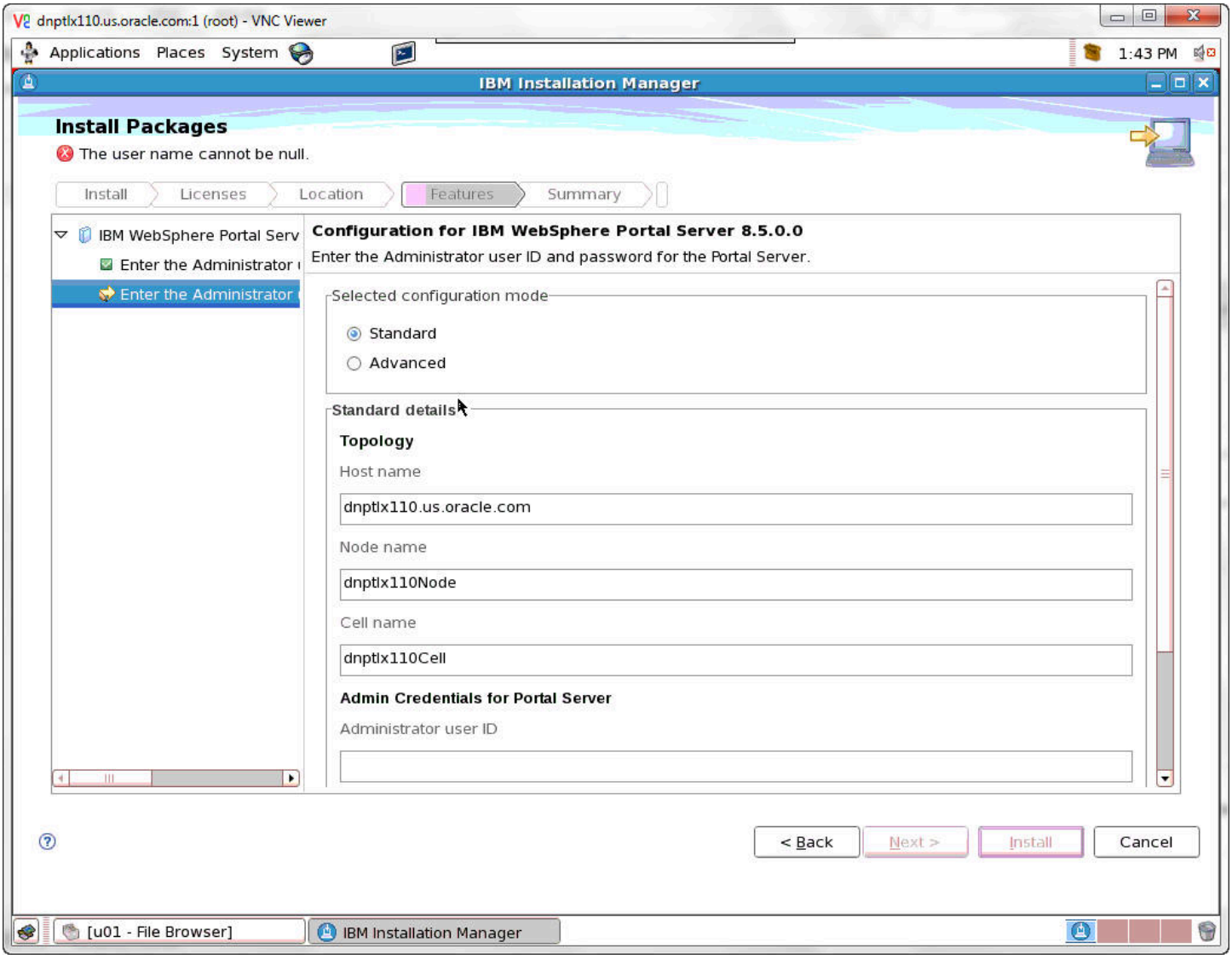
37. Select the features to install and click Next.



38. On the security screen for the administration user ID and password, WebSphere Portal enables security by default. It is not possible and/or recommended to disable security. Complete these fields:

Field	Description
Administrative User ID	Enter the user ID that you assign for the Portal administrator. For example: wpsadmin This user is used for Stopping Services after the Portal installation is completed. It is not related to any user IDs used to access the operating system.
Administrative Password	Enter the password for the Administrative User defined in the previous field.
Confirm Password	Confirm the password you entered in the previous field.

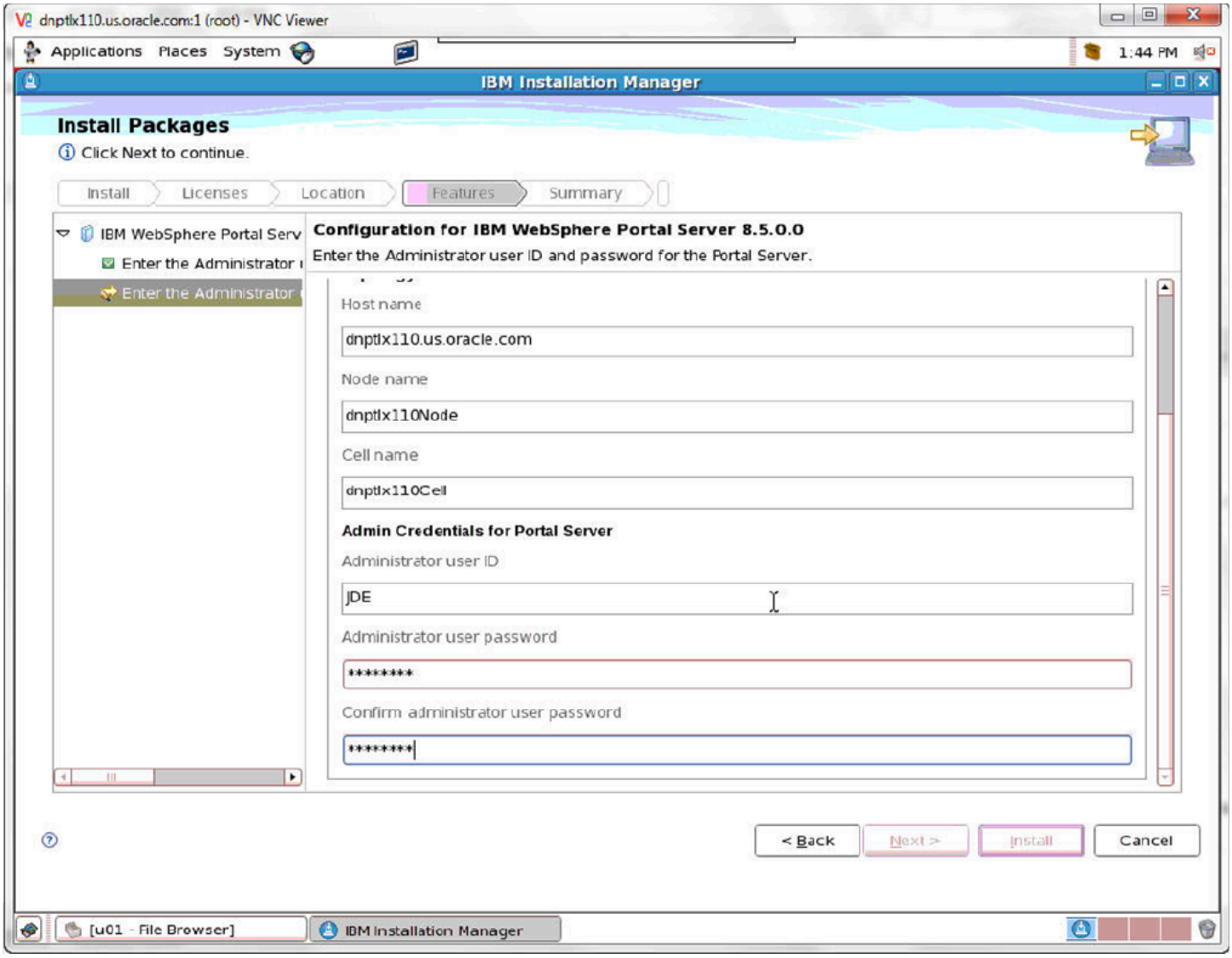
Field	Description


dnptlx110.us.oracle.com:1 (root) - VNC Viewer
Applications Places System
1:43 PM
IBM Installation Manager
Install Packages
The user name cannot be null.
Install
Licenses
Location
Features
Summary
IBM WebSphere Portal Serv
Enter the Administrator
Enter the Administrator
Configuration for IBM WebSphere Portal Server 8.5.0.0
Enter the Administrator user ID and password for the Portal Server.
Selected configuration mode
Standard
Advanced
Standard details
Topology
Host name
dnptlx110.us.oracle.com
Node name
dnptlx110Node
Cell name
dnptlx110Cell
Admin Credentials for Portal Server
Administrator user ID
< Back
Next >
Install
Cancel
[u01 - File Browser]
IBM Installation Manager

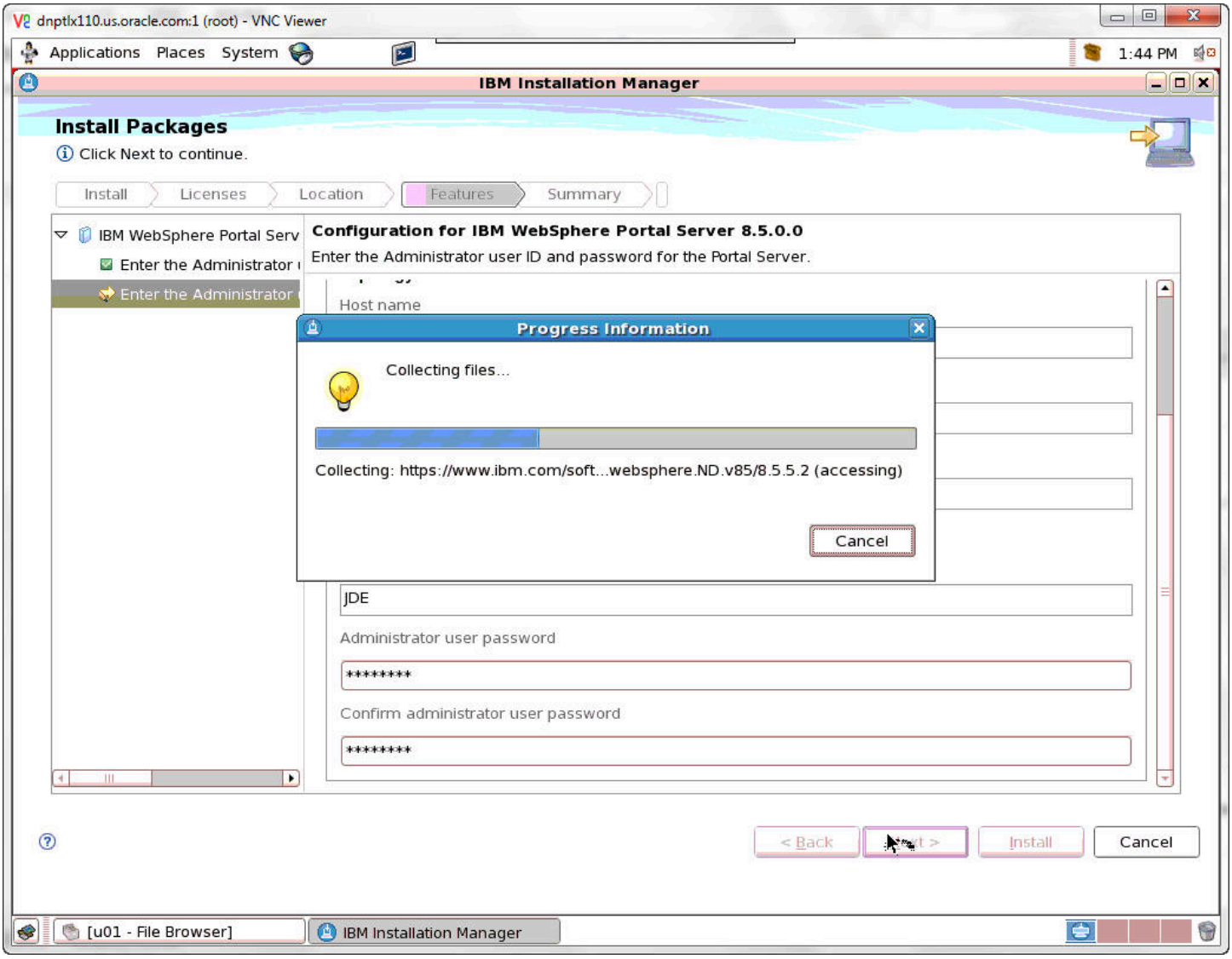
39. Enter the Administrator Credentials.

Field	Description
Node name	Enter a unique Node name for this installation of WebSphere Portal and Lotus Web Content Management. The Node name is used to identify the server. Having a unique node name is important when configuring a federated, production environment. Do not use names that contain special characters (i.e _ underscore..etc.).
Host name	Enter the fully-qualified Host name for this installation of WebSphere Portal and Lotus Web Content Management. The Host name must include the fully-qualified domain name (for example, hostname.example.com). Do not use a local host or a loopback address.

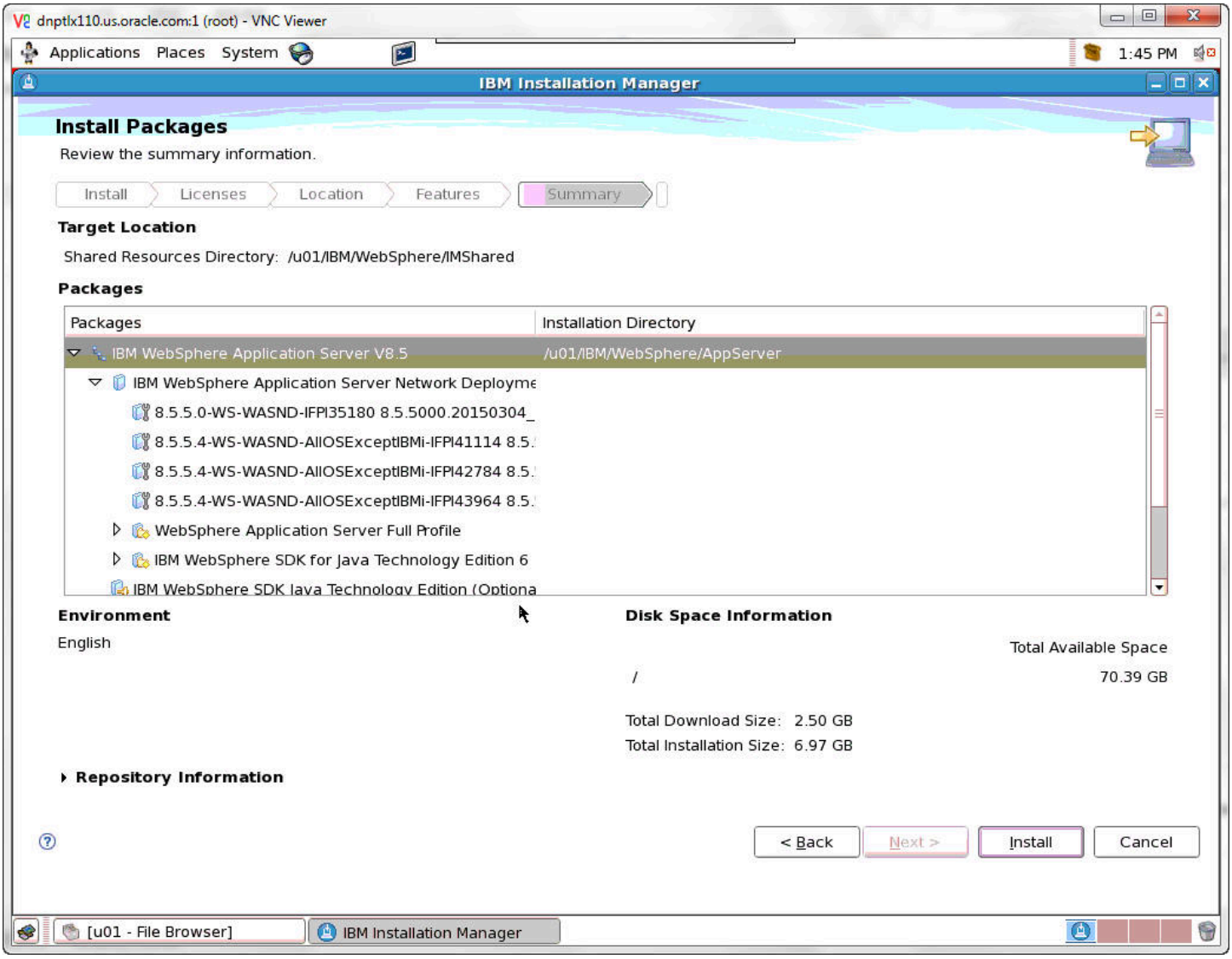
Field	Description


dnptlx110.us.oracle.com:1 (root) - VNC Viewer
Applications Places System
1:44 PM
IBM Installation Manager
Install Packages
Click Next to continue.
Install
Licenses
Location
Features
Summary
IBM WebSphere Portal Serv
Enter the Administrator
Enter the Administrator
Configuration for IBM WebSphere Portal Server 8.5.0.0
Enter the Administrator user ID and password for the Portal Server.
Host name
dnptlx110.us.oracle.com
Node name
dnptlx110Node
Cell name
dnptlx110Cell
Admin Credentials for Portal Server
Administrator user ID
JDE
Administrator user password
Confirm administrator user password
< Back
Next >
Install
Cancel
[u01 - File Browser]
IBM Installation Manager

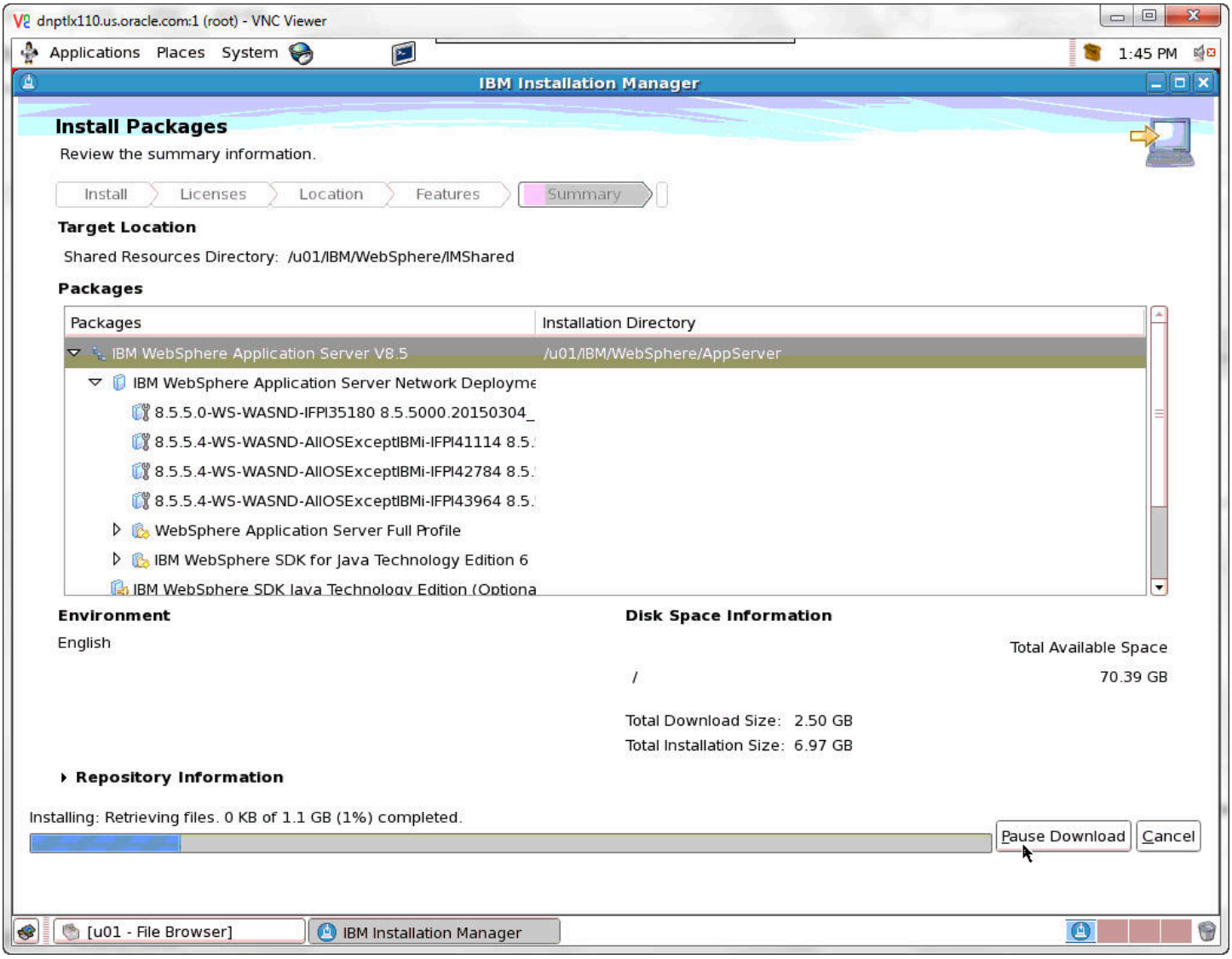
40. Scroll down to complete the information. When finished click Next.



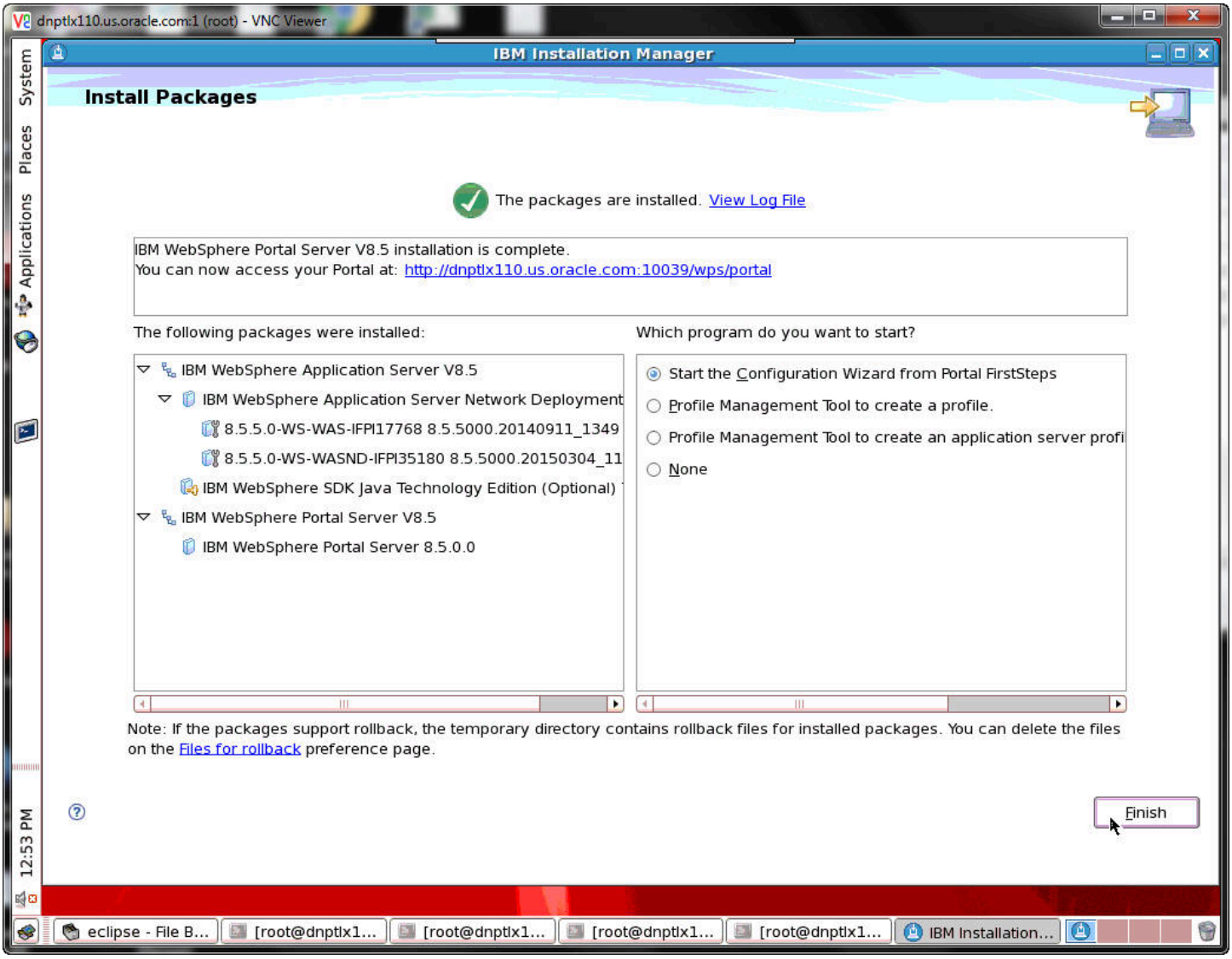
41. When the information is complete, the Install button becomes available. Click Install.



42. When the summary information is complete, the Install button becomes available. Click Install.



43. A progress bar will appear along the bottom of the screen.



44. A summary screen will appear when the install is complete. Click Finish.

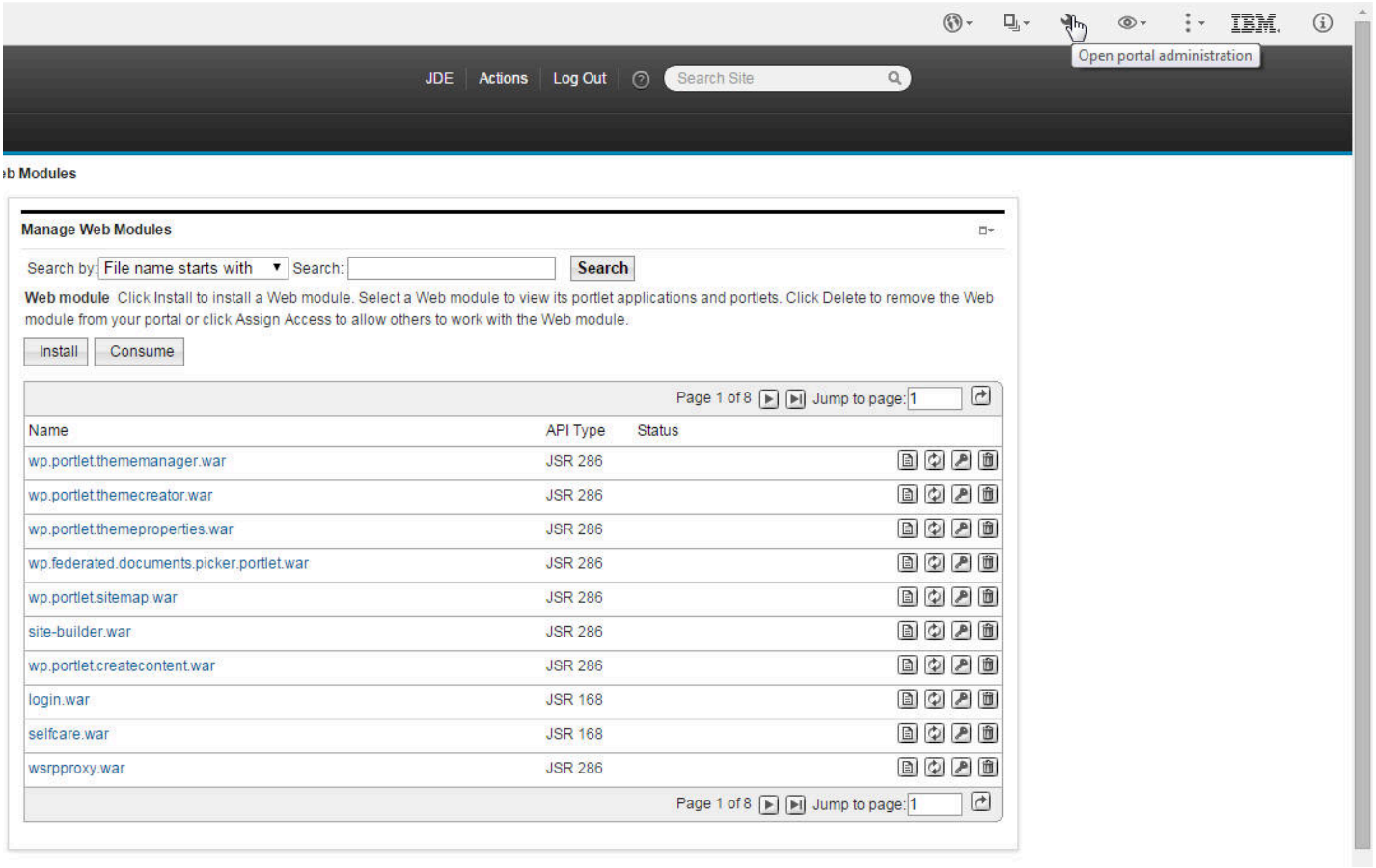
This completes the successful installation of WebSphere Portal 8.5.

Registering the WSRP Producer

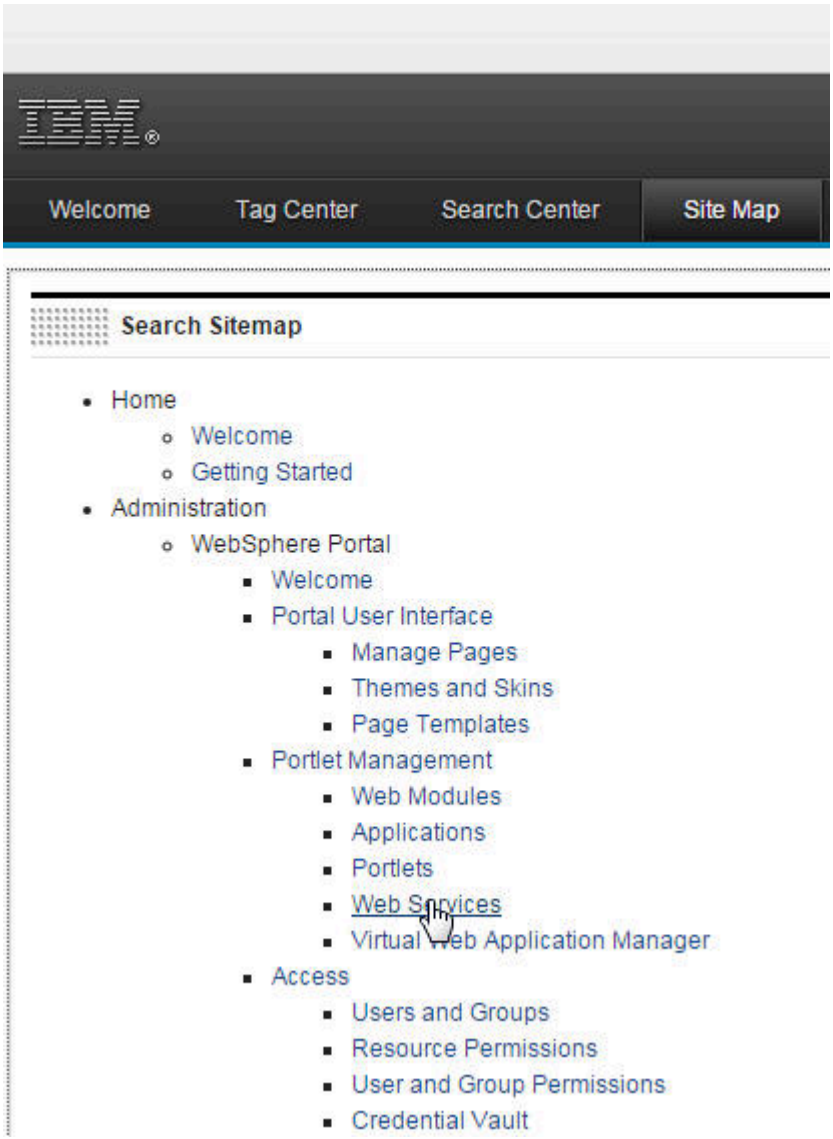
To register the WSRP Producer:


IBM
Welcome
Tag Center
Search Center
Site Map
Search Sitemap
Home
Welcome
Getting Started
Administration
WebSphere Portal
Welcome
Portal User Interface
Manage Pages
Themes and Skins
Page Templates
Portlet Management
Web Modules
Applications
Portlets
Web Services
Virtual Web Application Manager
Access
Users and Groups
Resource Permissions
User and Group Permissions
Credential Vault
Portal Settings
Global Settings
Custom Unique Names
Supported Markups
Supported Clients
Import XML
Portal Content
Web Content Libraries
Syndicators
Subscribers
Feed Configurations
Feed Jobs
Search Administration
Manage Search
Portal Analysis
Theme Analyzer
Frequent Users
Enable Tracing
About IBM WebSphere Portal

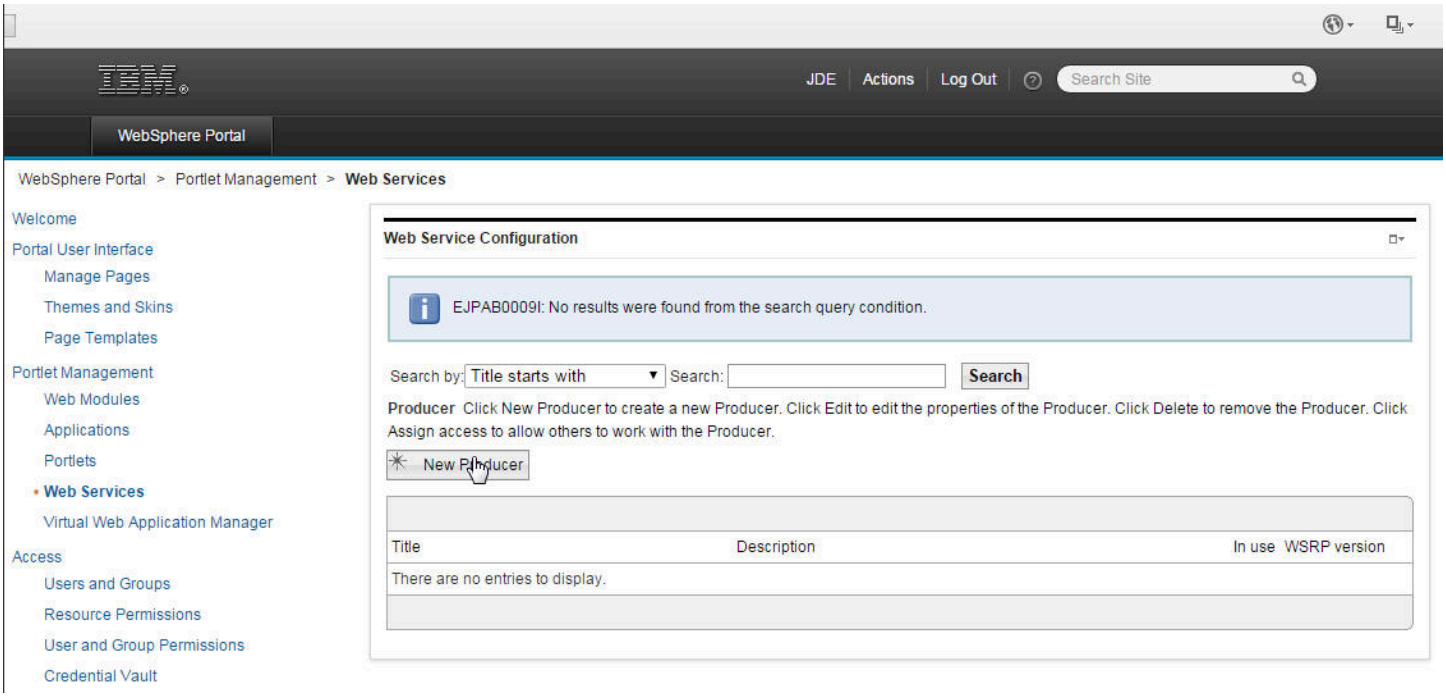
1. When the IBM WebSphere Portal is launched a Site Map will be available. Select WebSphere Portal located below Administration or click on the Tools "Wrench" icon.



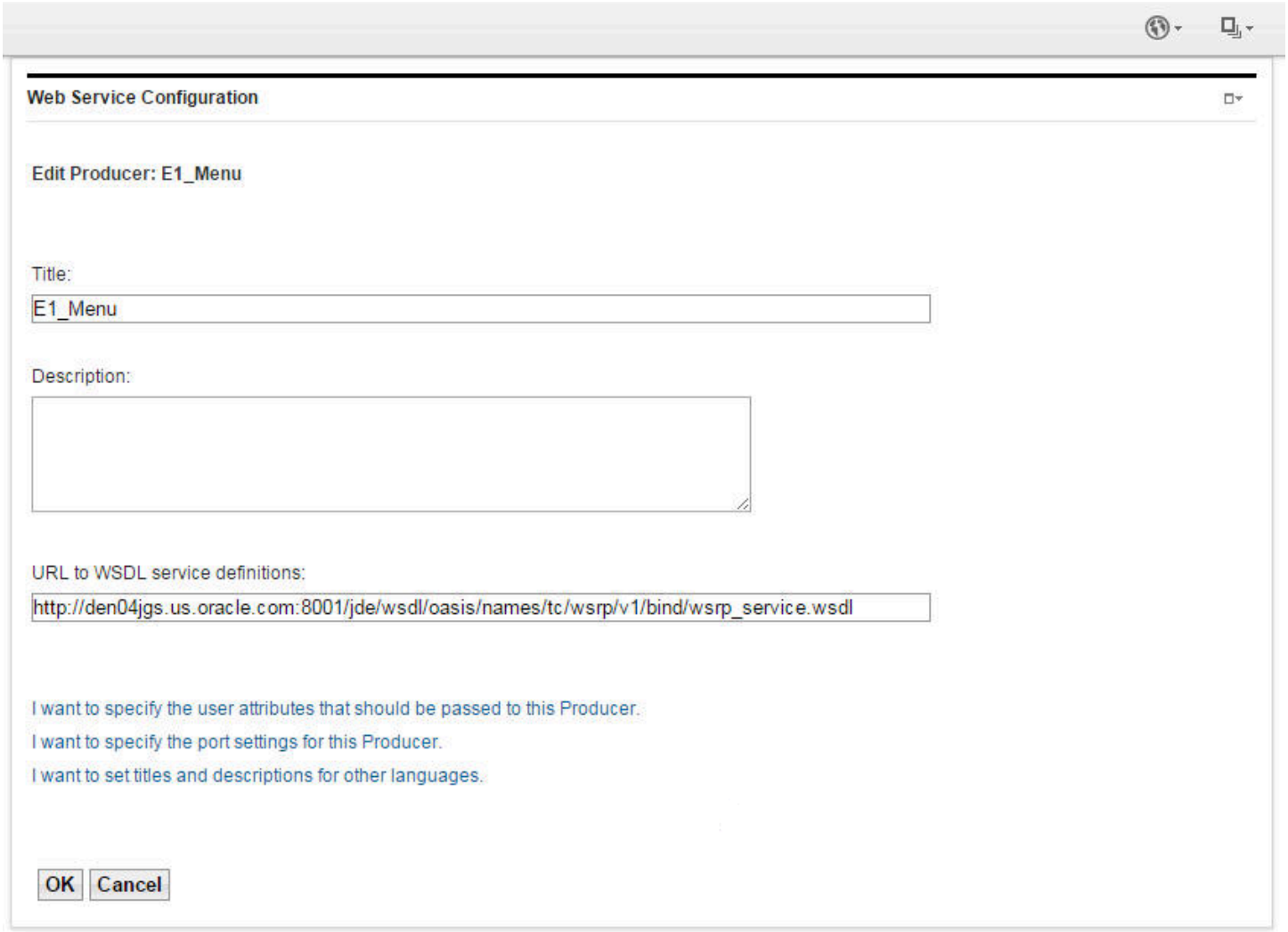
2. Select the Open portal administration icon located in the upper right side of the toolbar.



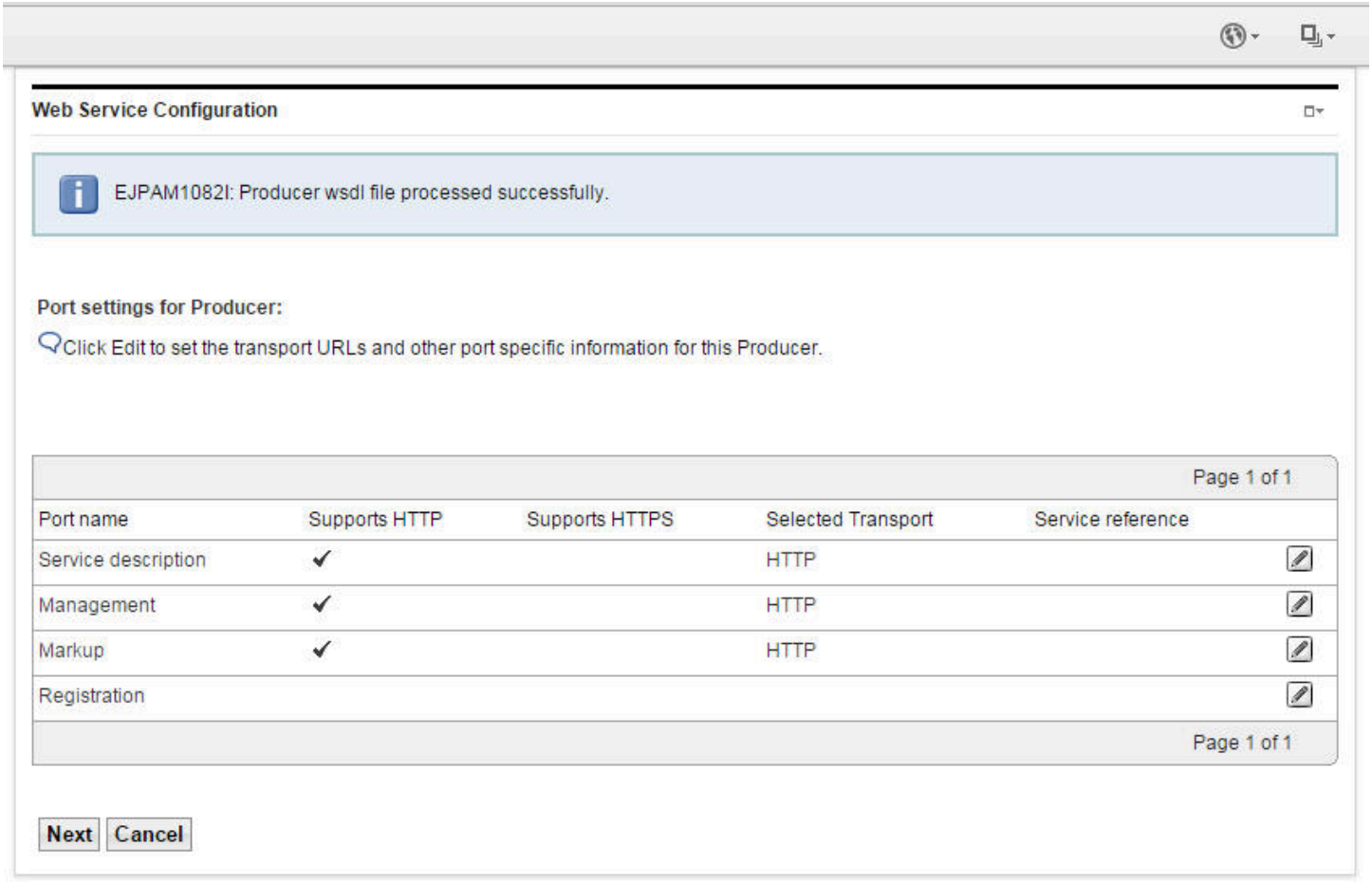
3. Next, click on Web Services located below Portlet Management.



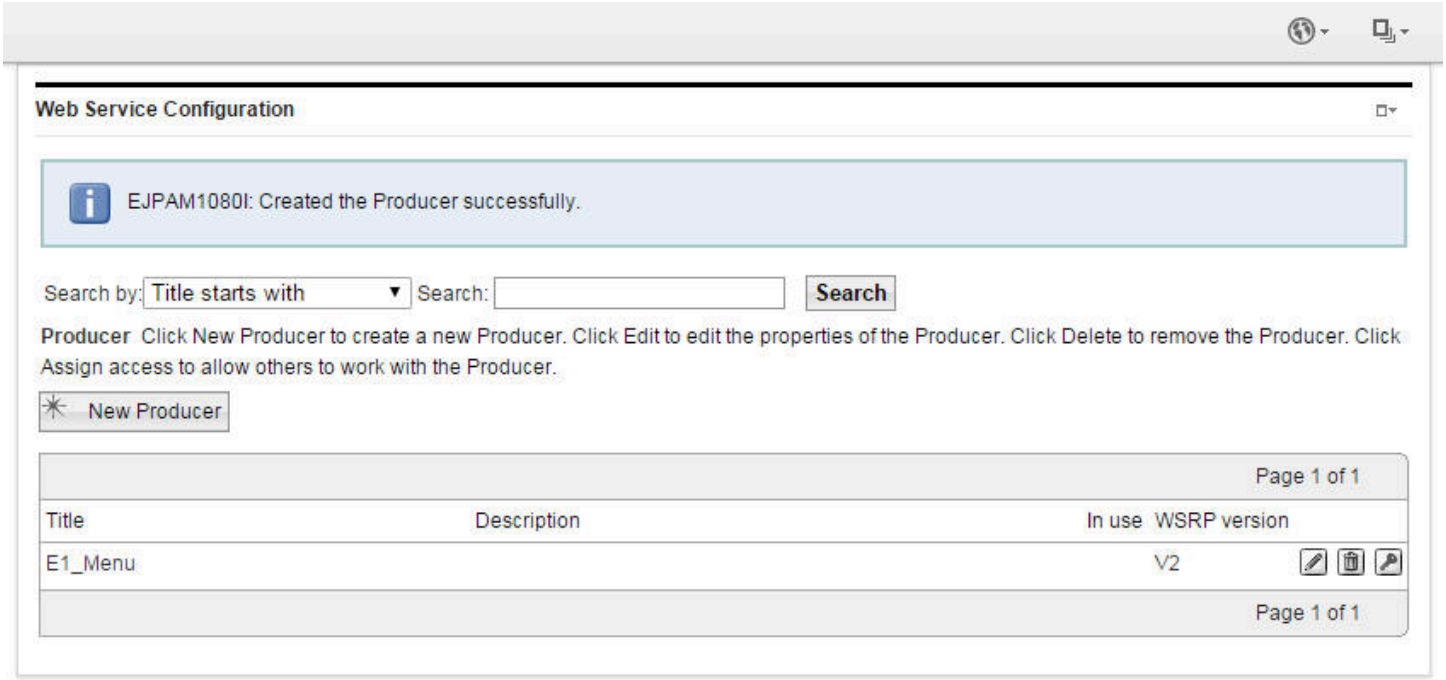
4. Click the New Producer button.



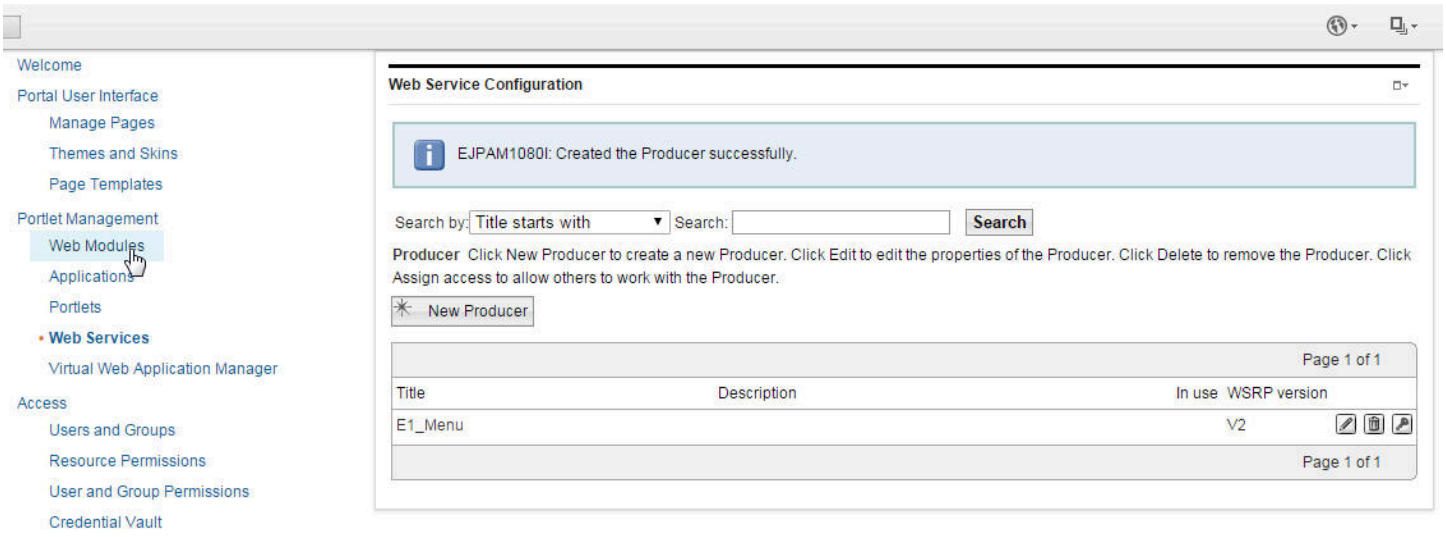
5. Verify or enter the Edit Producer URL. Click OK.



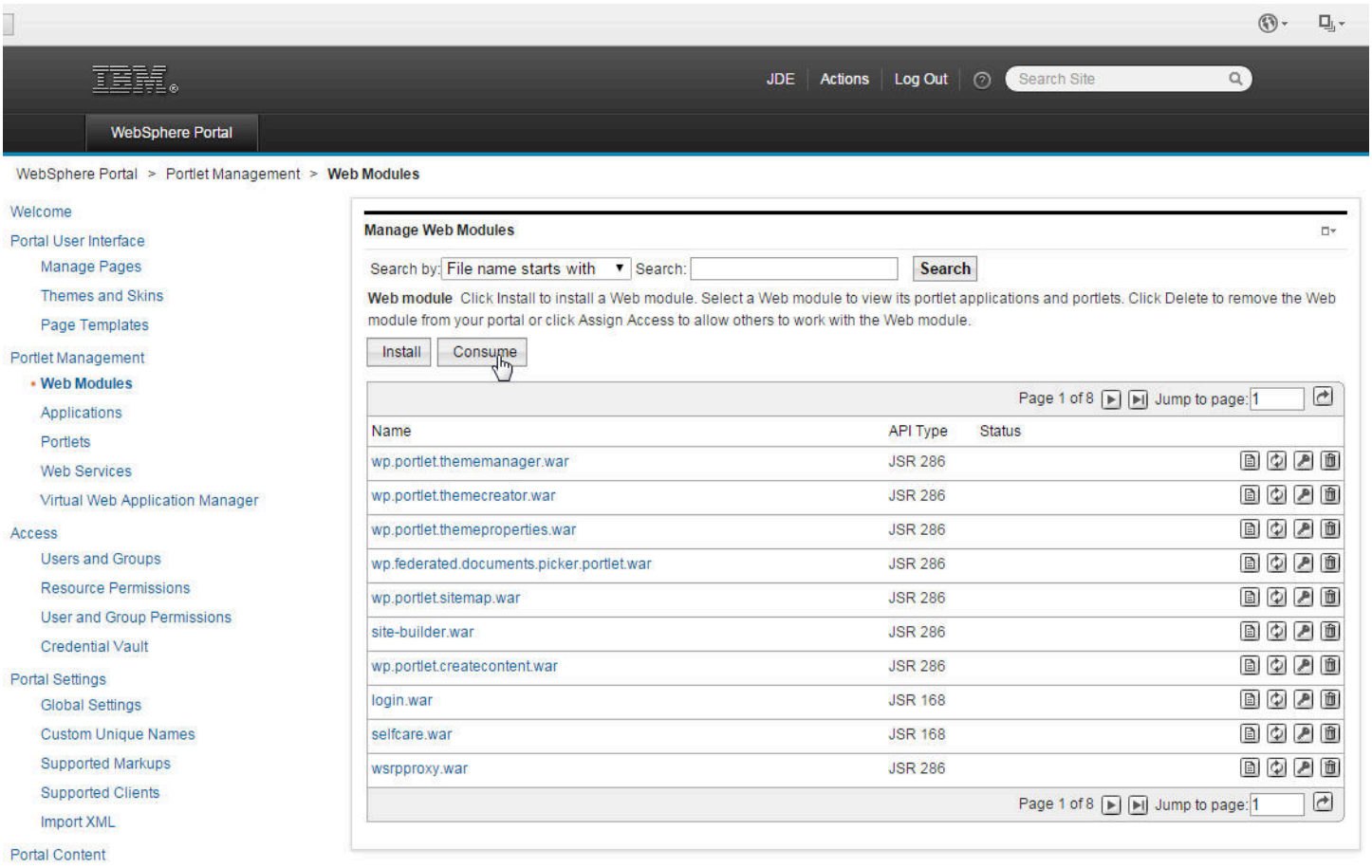
6. Click Edit to set the transport URLs and other port specific information for this Producer. Click Next.



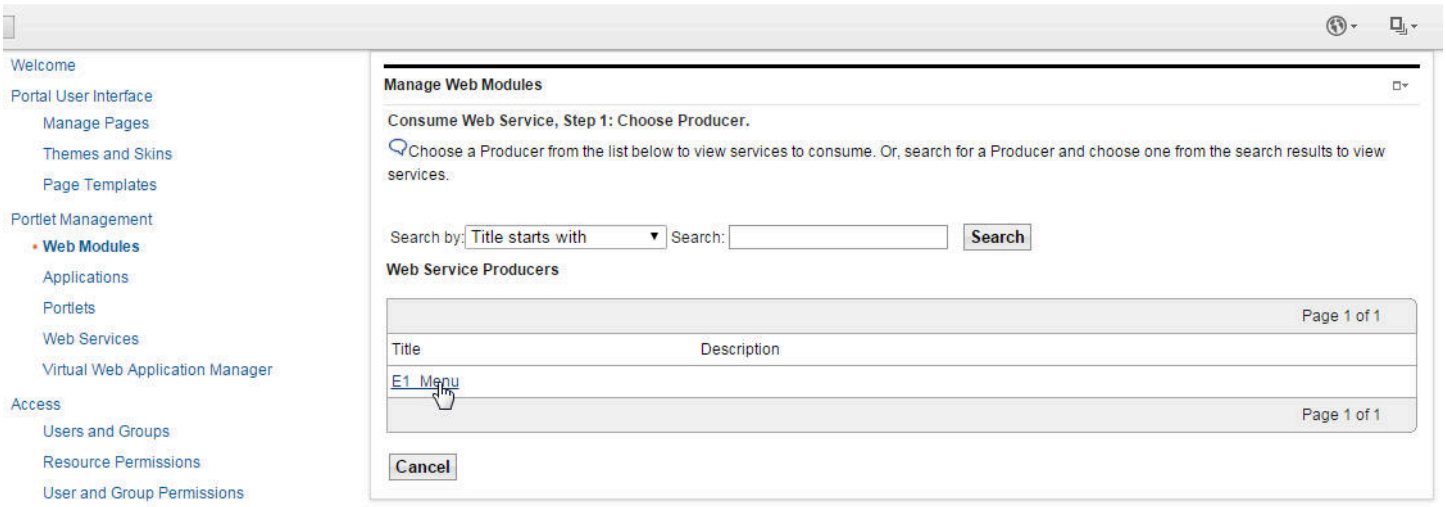
7. Add a New Producer if needed.



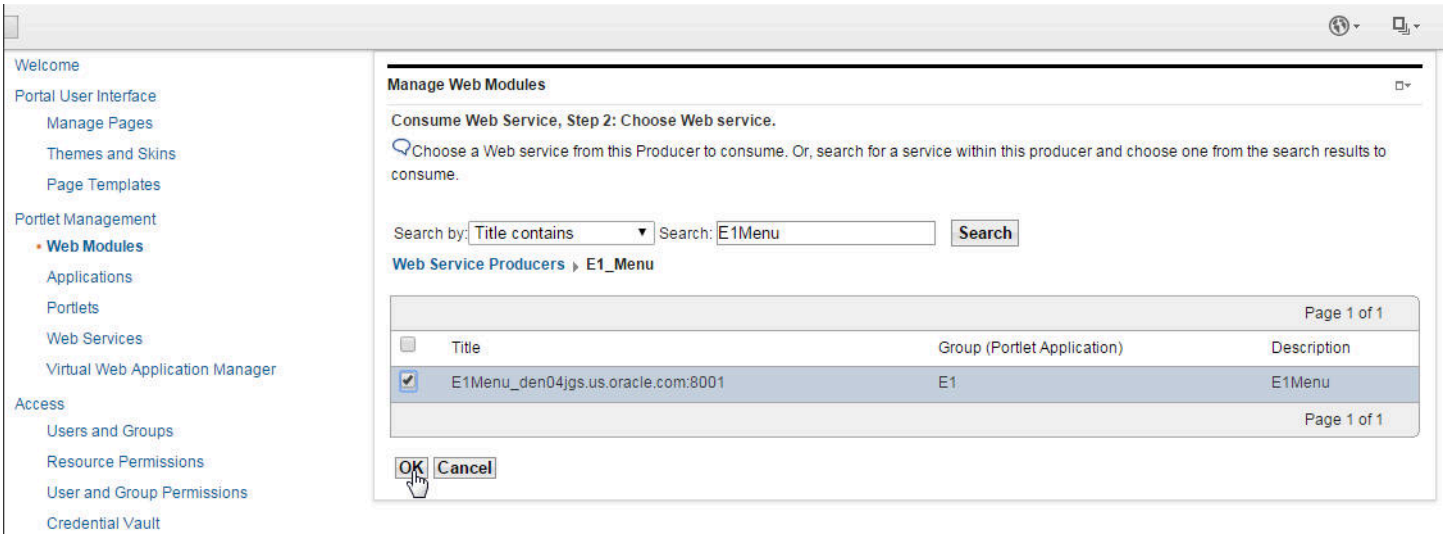
8. Select Web Modules below Portlet Management.



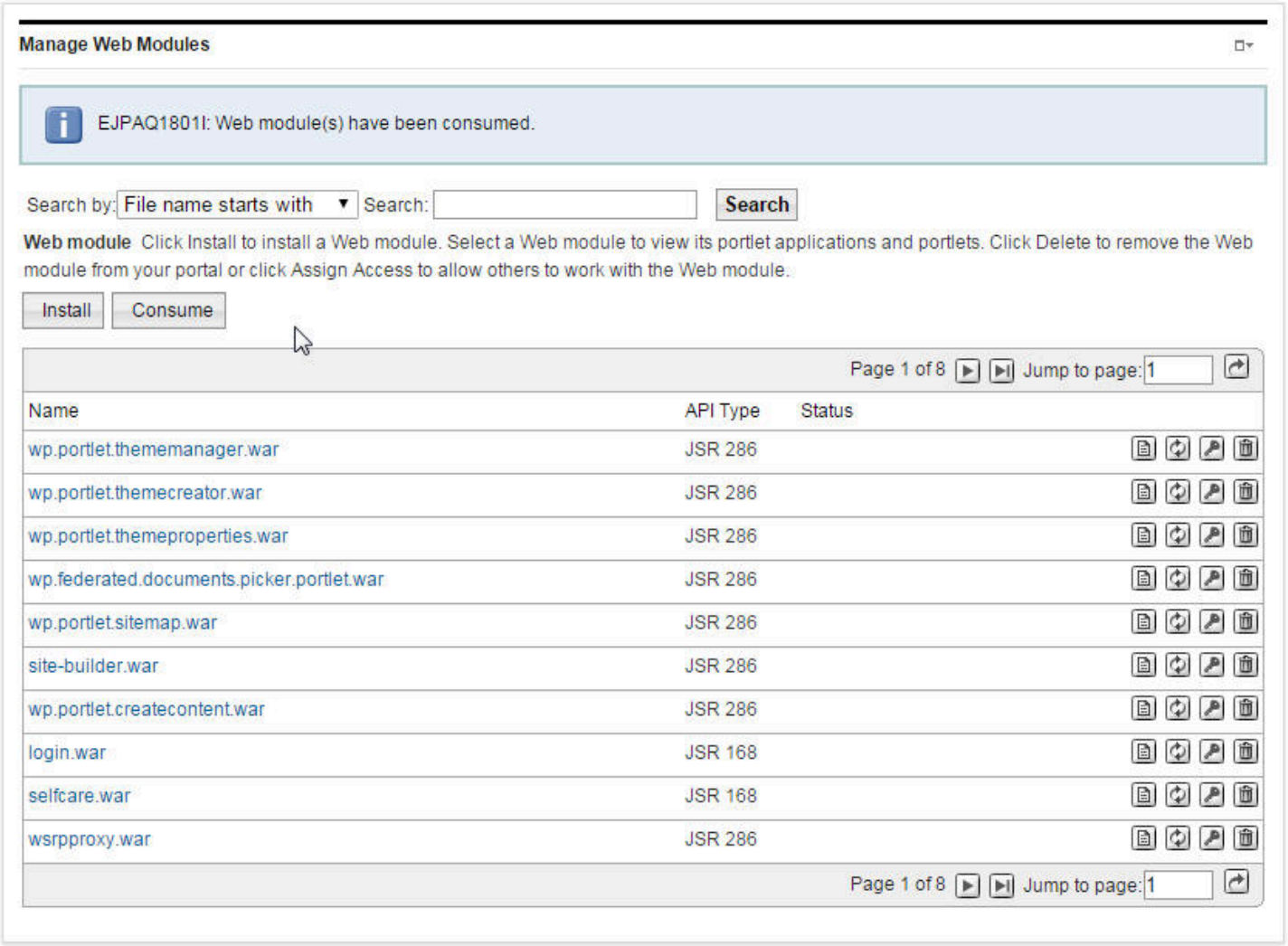
9. Click the Consume button.



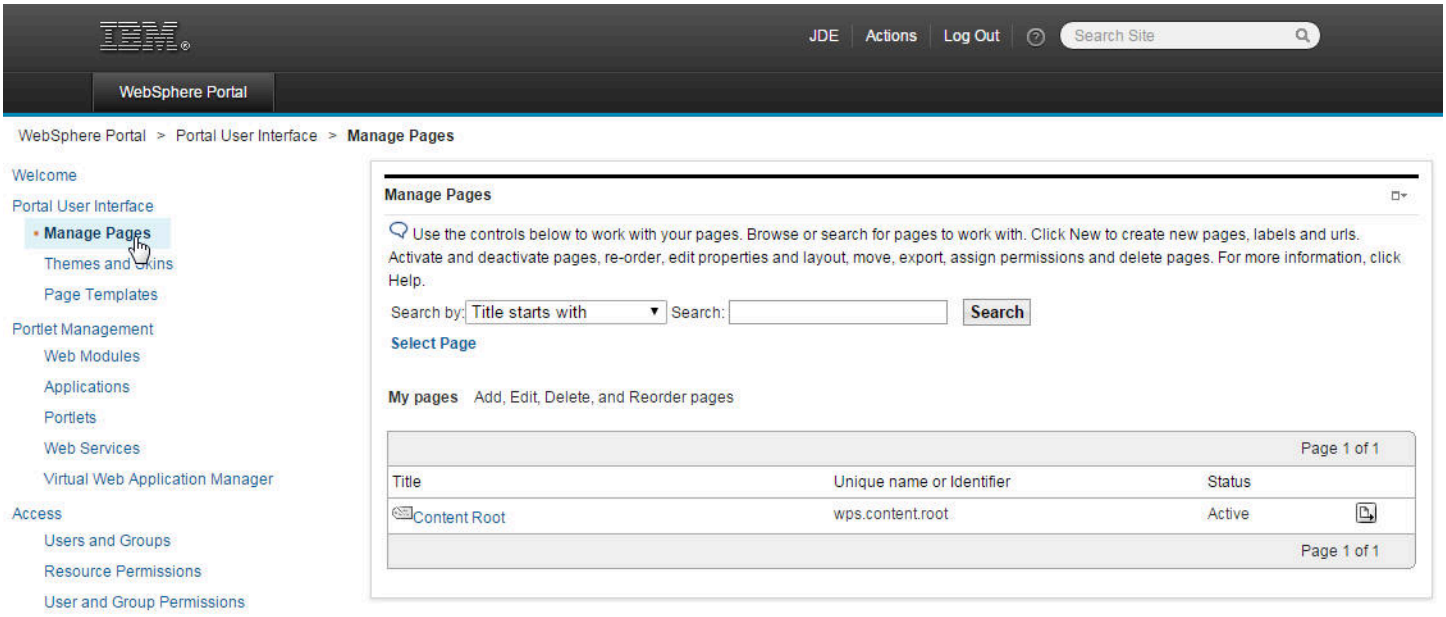
10. Click the E1_Menu hyperlink.



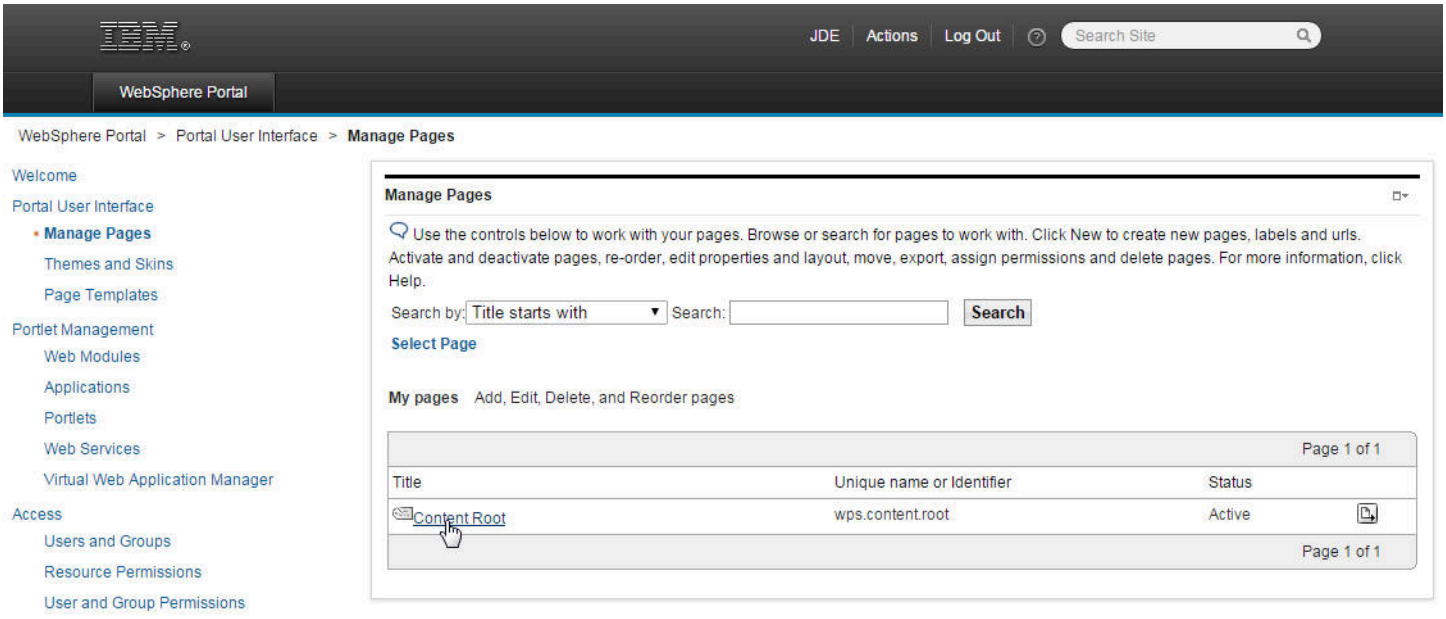
11. Click OK.


Manage Web Modules
EJPAQ1801I: Web module(s) have been consumed.
Search by: File name starts with
Search:
Search
Web module Click Install to install a Web module. Select a Web module to view its portlet applications and portlets. Click Delete to remove the Web module from your portal or click Assign Access to allow others to work with the Web module.
Install
Consume
Page 1 of 8
Jump to page: 1
Name
API Type
Status
wp.portlet.thememanager.war
JSR 286
wp.portlet.themecreator.war
JSR 286
wp.portlet.themeproperties.war
JSR 286
wp.federated.documents.picker.portlet.war
JSR 286
wp.portlet.sitemap.war
JSR 286
site-builder.war
JSR 286
wp.portlet.createcontent.war
JSR 286
login.war
JSR 168
selfcare.war
JSR 168
wsrpproxy.war
JSR 286
Page 1 of 8
Jump to page: 1

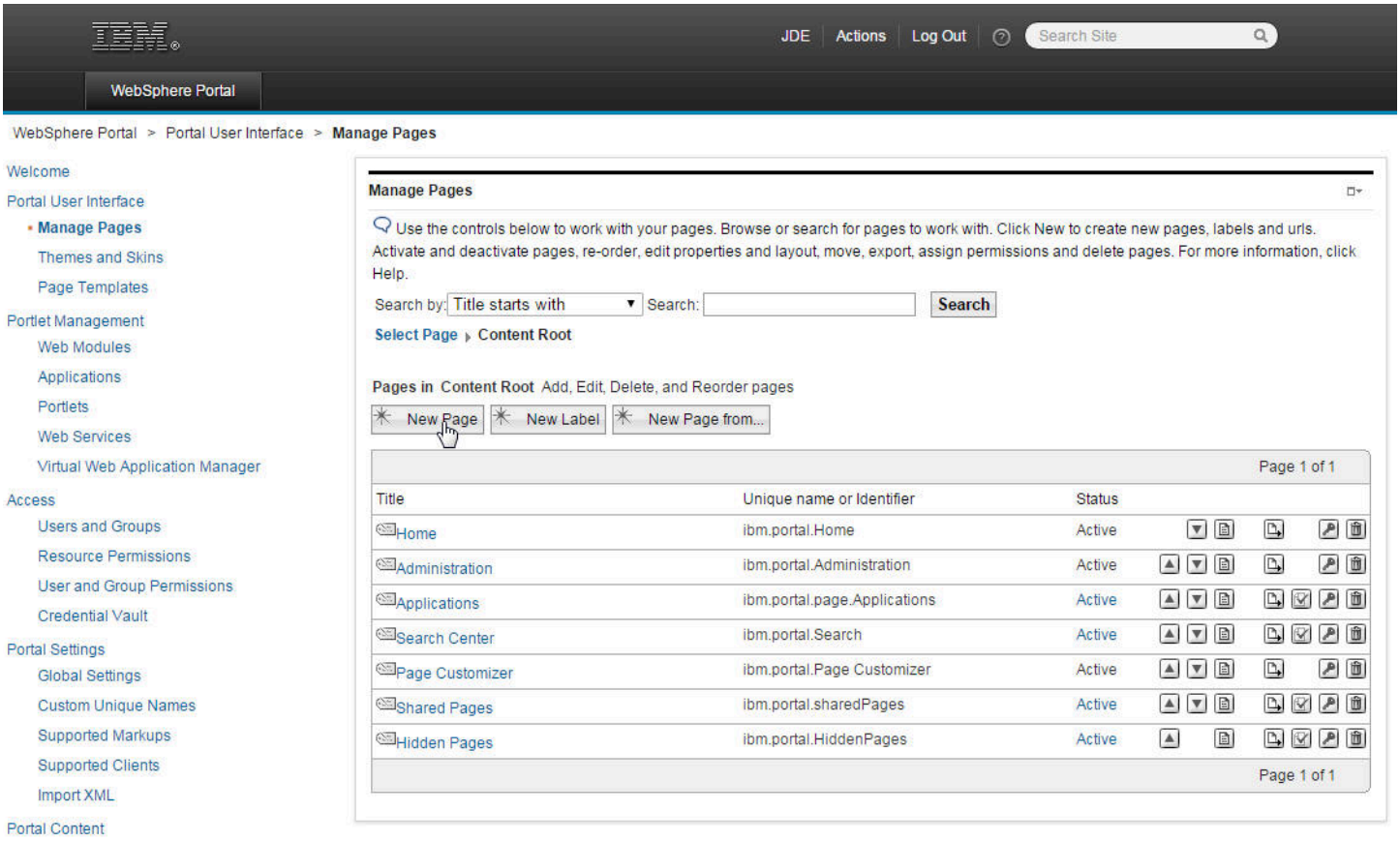
12. Click the Install icon to install a Web module. select a Web module to view its portlet applications and portlets. Click Delete to remove the Web module from your portal or click Assign Access to allow others to work with the Web module.



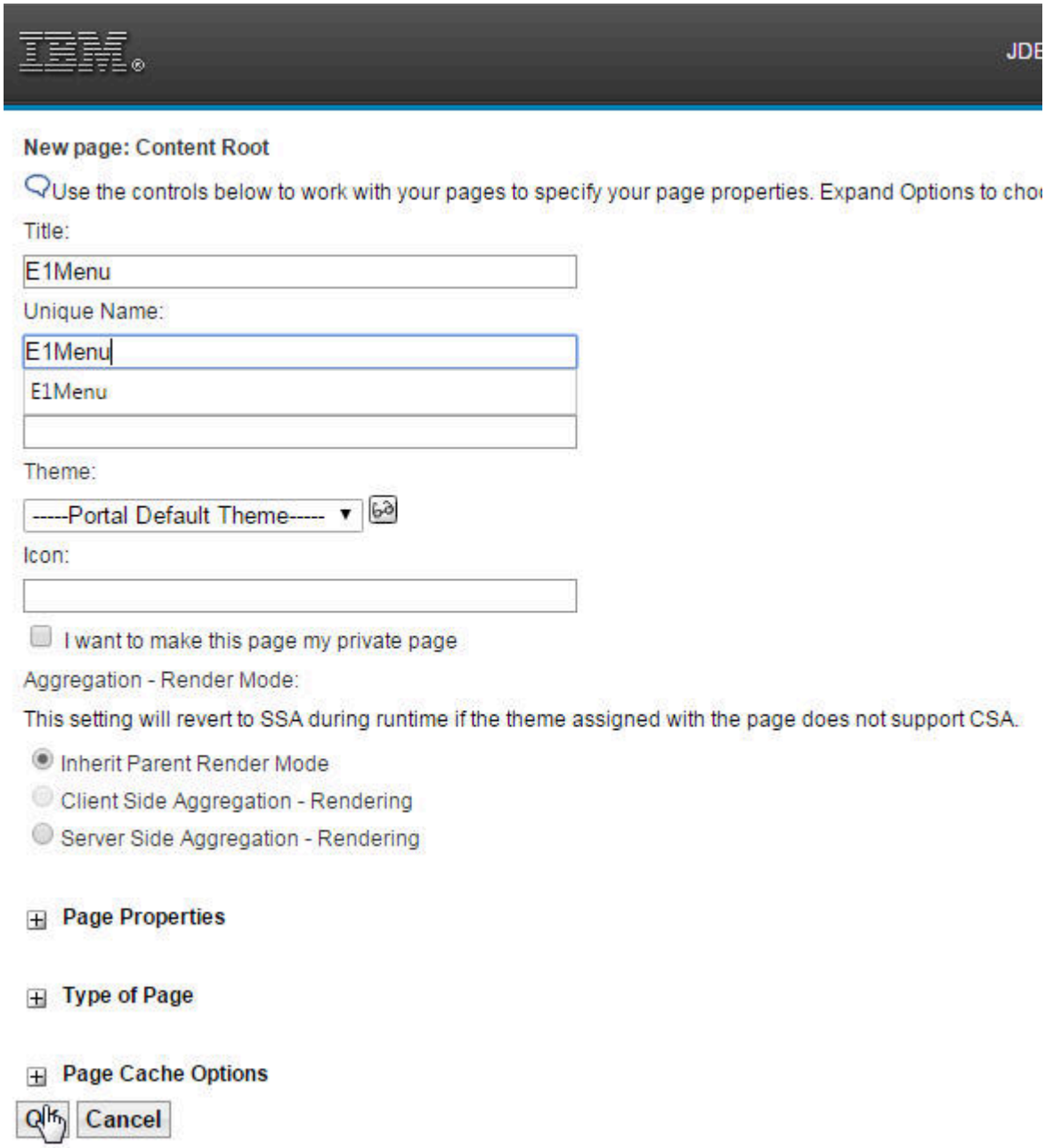
13. Click Manage Pages.



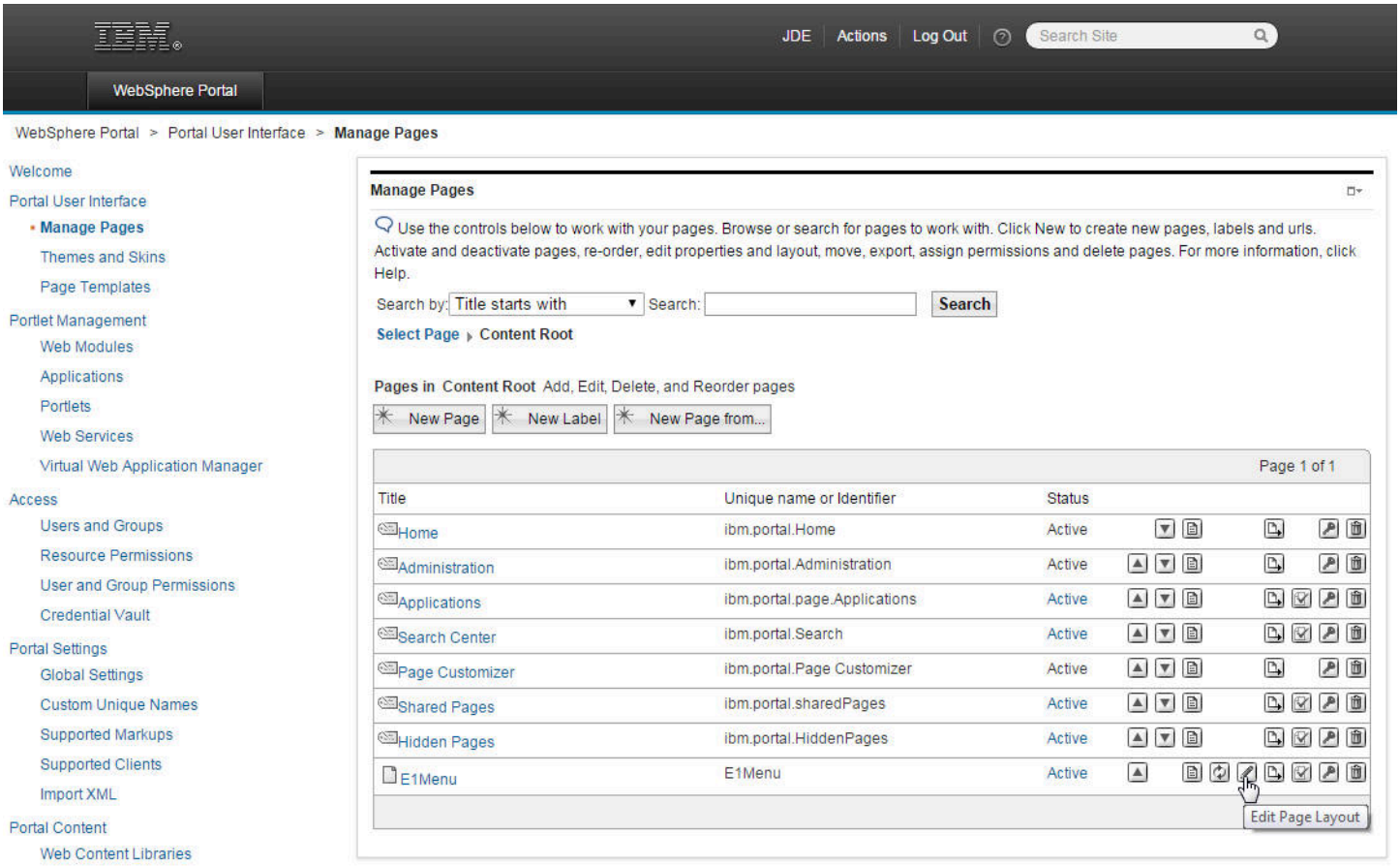
14. Click the Content Root Hyperlink.



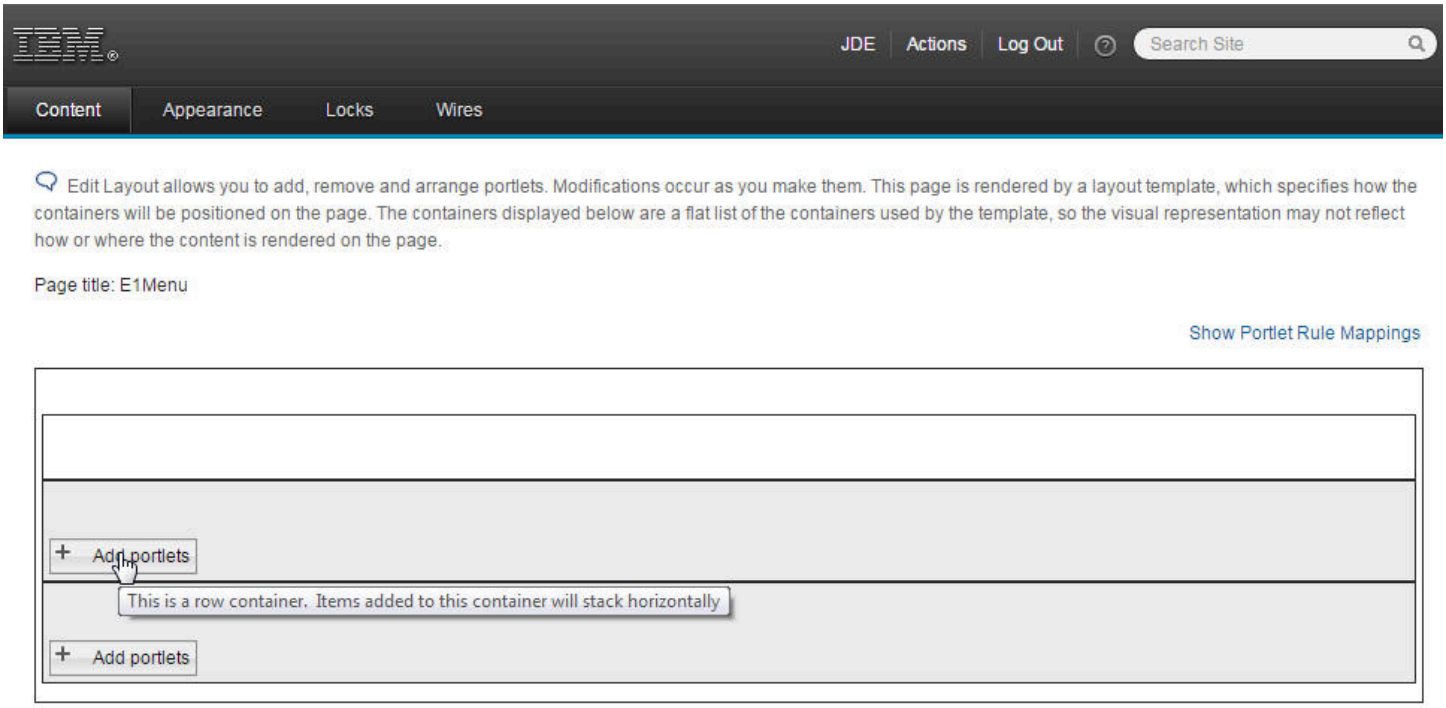
15. Click the New Page button.



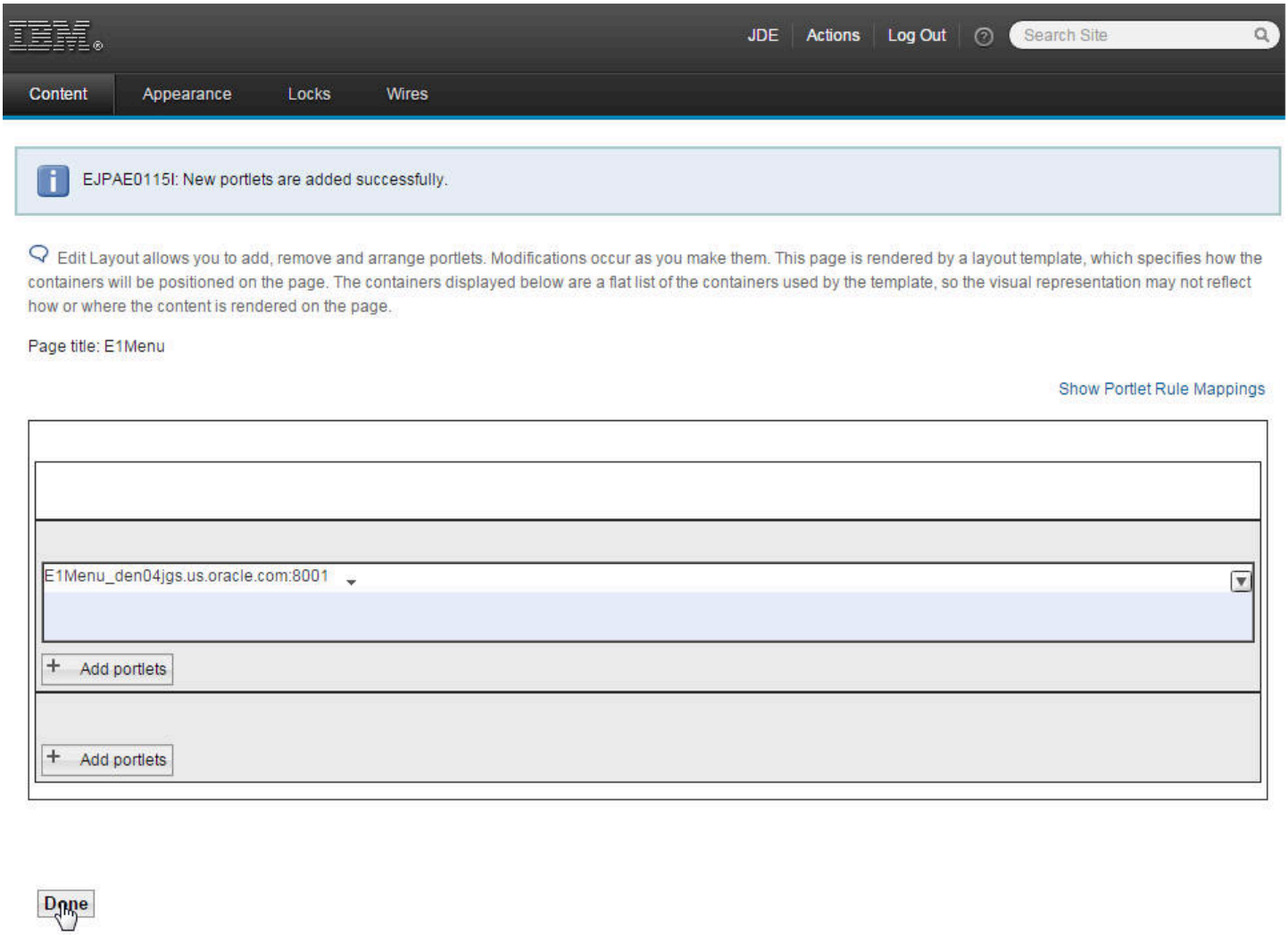
16. Fill in the Title and a Unique Name fields and then click the OK button.



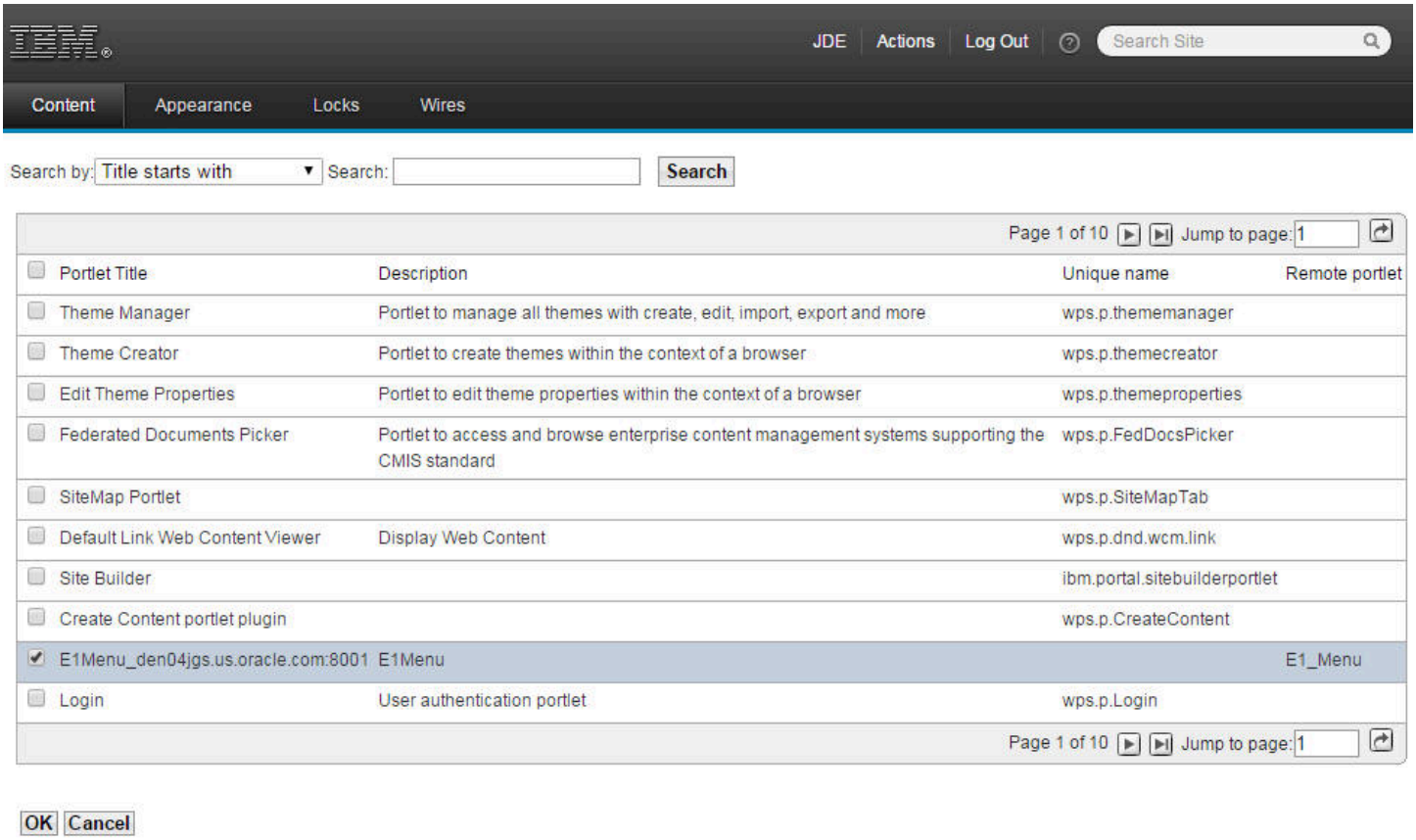
17. Click the Edit Page Layout icon.



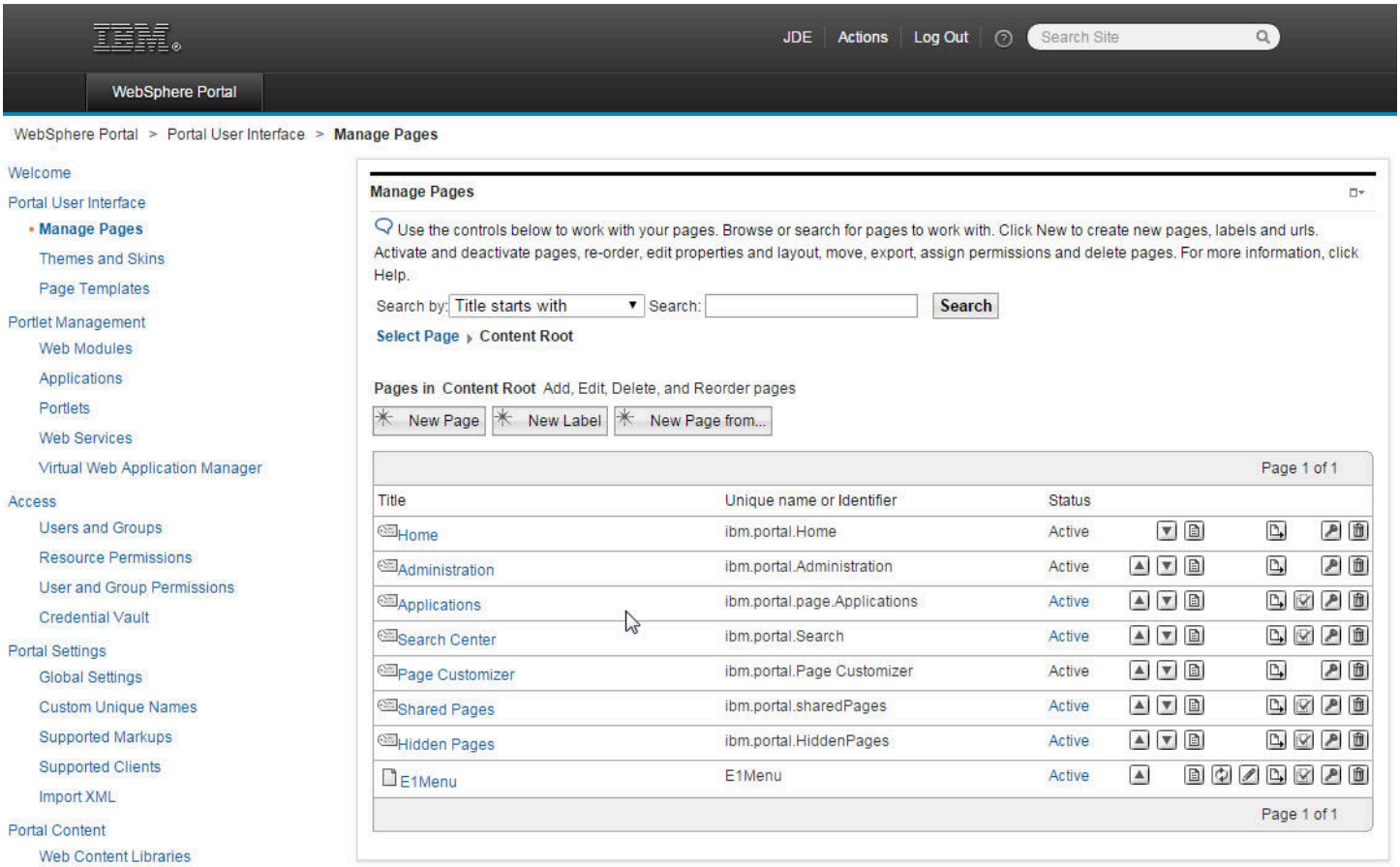
18. Click the Add Portlets button.



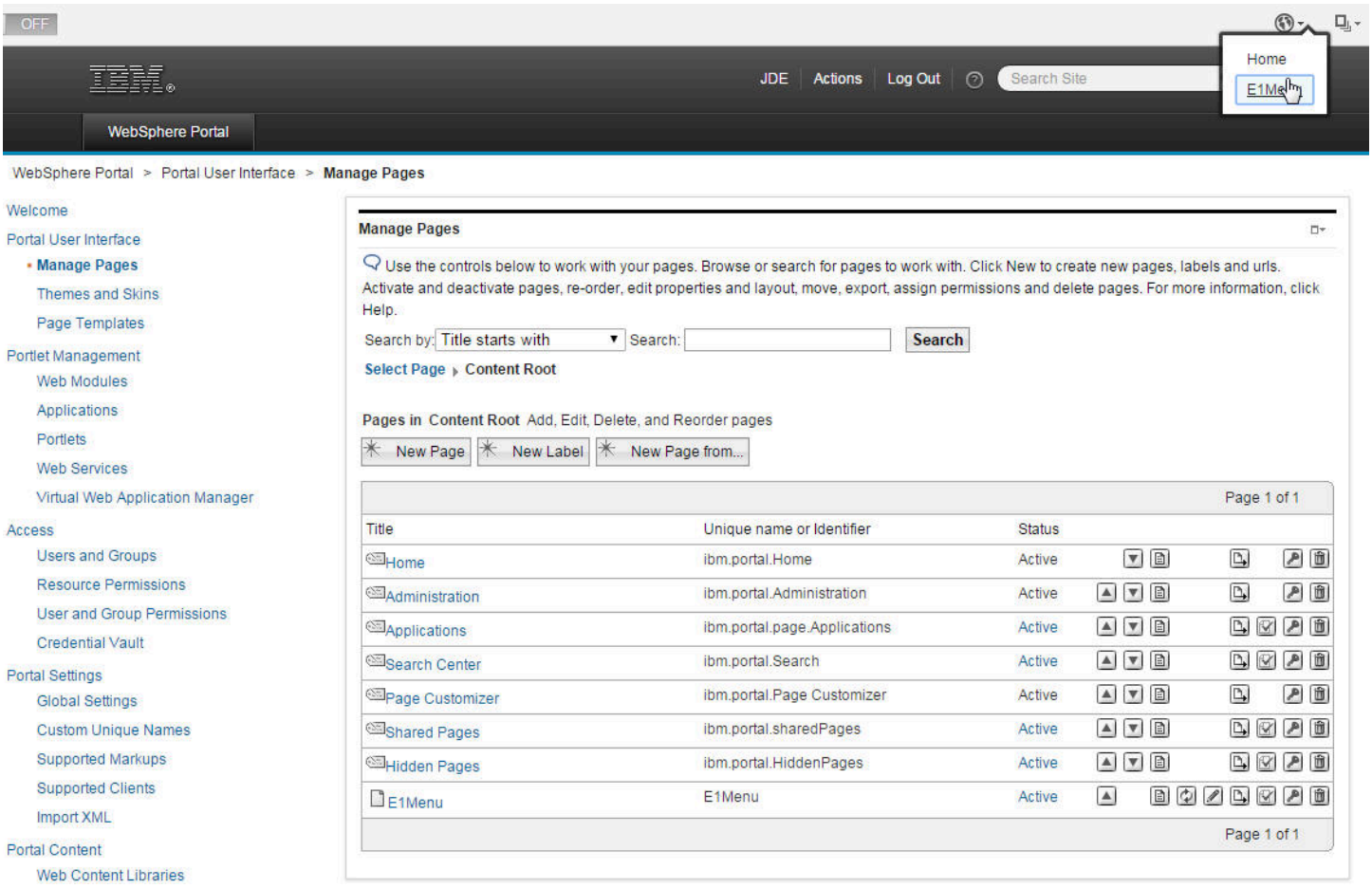
19. When you have added the portlets that you need, click the Done button.



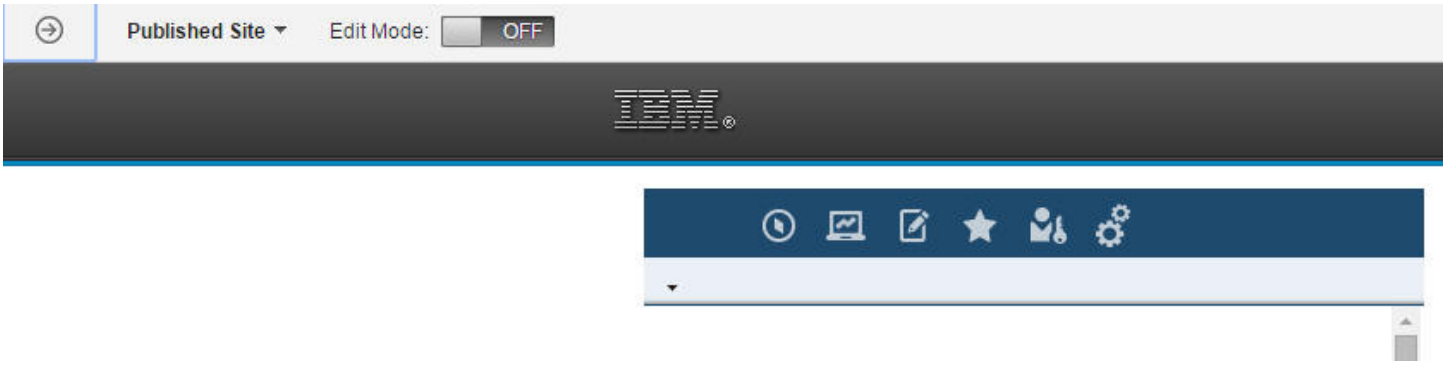
20. Select the E1 Menu and click OK.



21. The Manage Pages screen will display.



22. Select E1 Menu from the dropdown menu in the upper right area of the toolbar.



23. The E1 Menu icons will display.

This completes the successful registration of the WSRP Producer.

Problem: WebSphere Portal installation from a mounted directory fails during profile creation

Issue

You attempt to install IBM WebSphere Portal v8.5 from a mounted directory and the installation fails during profile creation. You are using the silent install option along with a response file.

Resolution

From the command line, use the UNIX command nohup. This command ignores the SIGHUP signal and allows the installation to complete successfully. The syntax is:

```
nohup ./install.bat -options {responsefile_path}
```

Reference link:

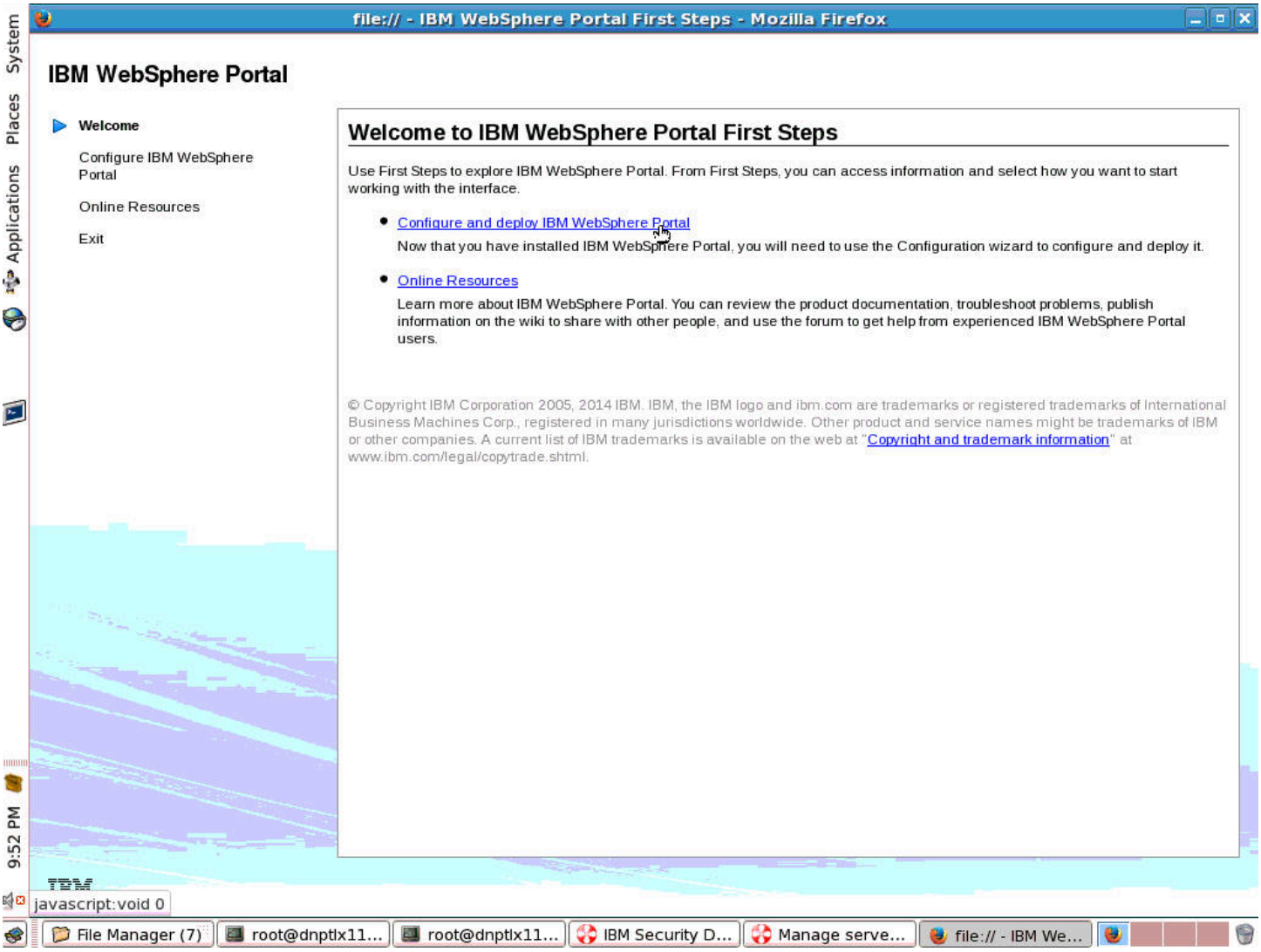
```
http://www-01.ibm.com/support/docview.wss?uid=swg21293388
```

3 Using the Migration Wizard

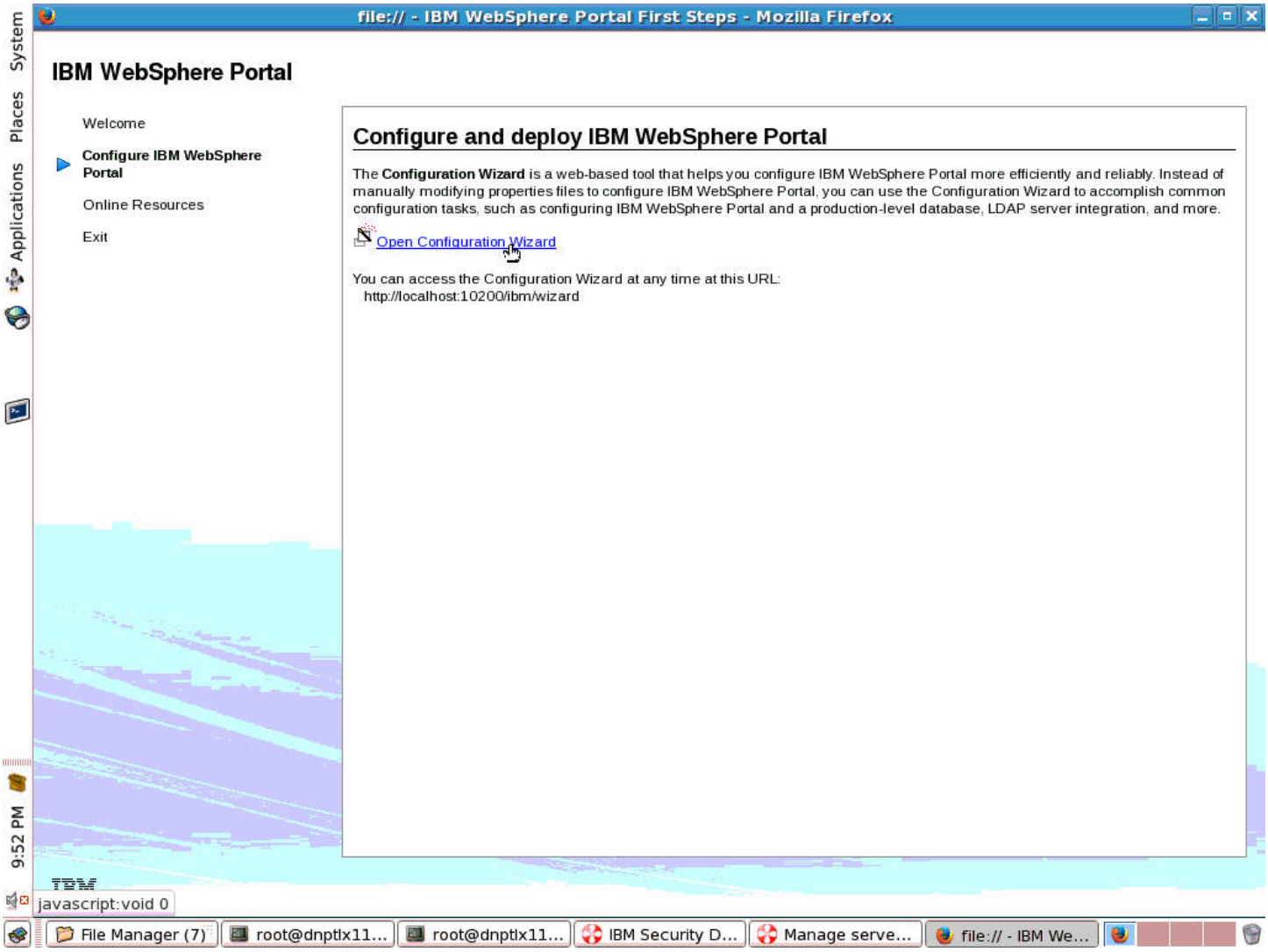
Using the Migration Wizard

To use the Migration Wizard:

1. On the Manage server state tab, select IBM WebSphere | IBM WebSphere Portal Server V8.5 | First Steps to launch the Portal Server First Steps application.

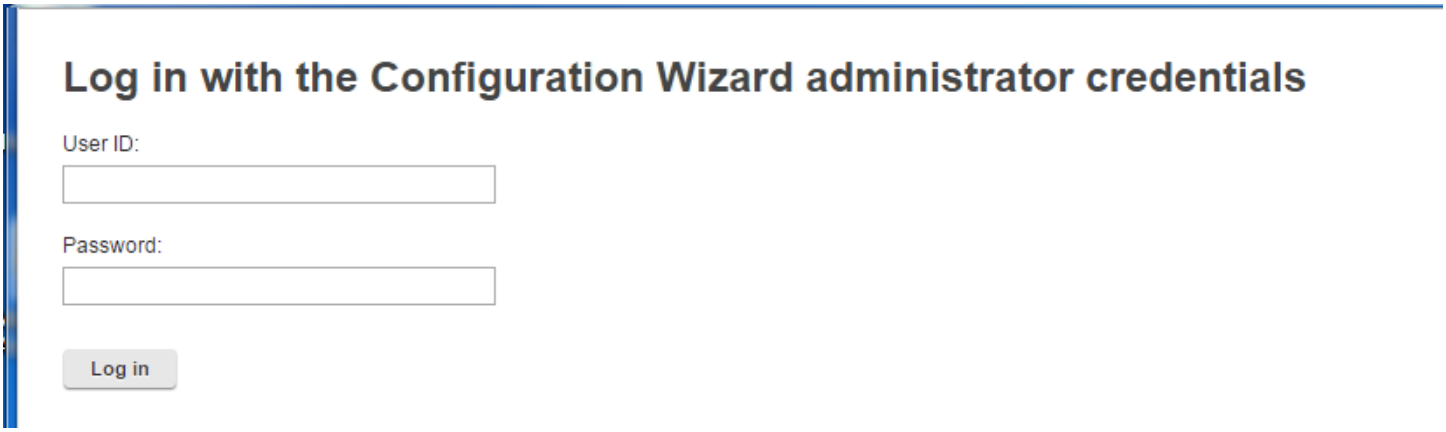

file:// - IBM WebSphere Portal First Steps - Mozilla Firefox
IBM WebSphere Portal
Welcome
Configure IBM WebSphere Portal
Online Resources
Exit
Welcome to IBM WebSphere Portal First Steps
Use First Steps to explore IBM WebSphere Portal. From First Steps, you can access information and select how you want to start working with the interface.
Configure and deploy IBM WebSphere Portal
Now that you have installed IBM WebSphere Portal, you will need to use the Configuration wizard to configure and deploy it.
Online Resources
Learn more about IBM WebSphere Portal. You can review the product documentation, troubleshoot problems, publish information on the wiki to share with other people, and use the forum to get help from experienced IBM WebSphere Portal users.
© Copyright IBM Corporation 2005, 2014 IBM. IBM, the IBM logo and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.
javascript:void 0
System
Places
Applications
9:52 PM
File Manager (7)
root@dnptlx11...
root@dnptlx11...
IBM Security D...
Manage serve...
file:// - IBM We...

2. Select the **Configure and deploy IBM WebSphere Portal Server** hyperlink.

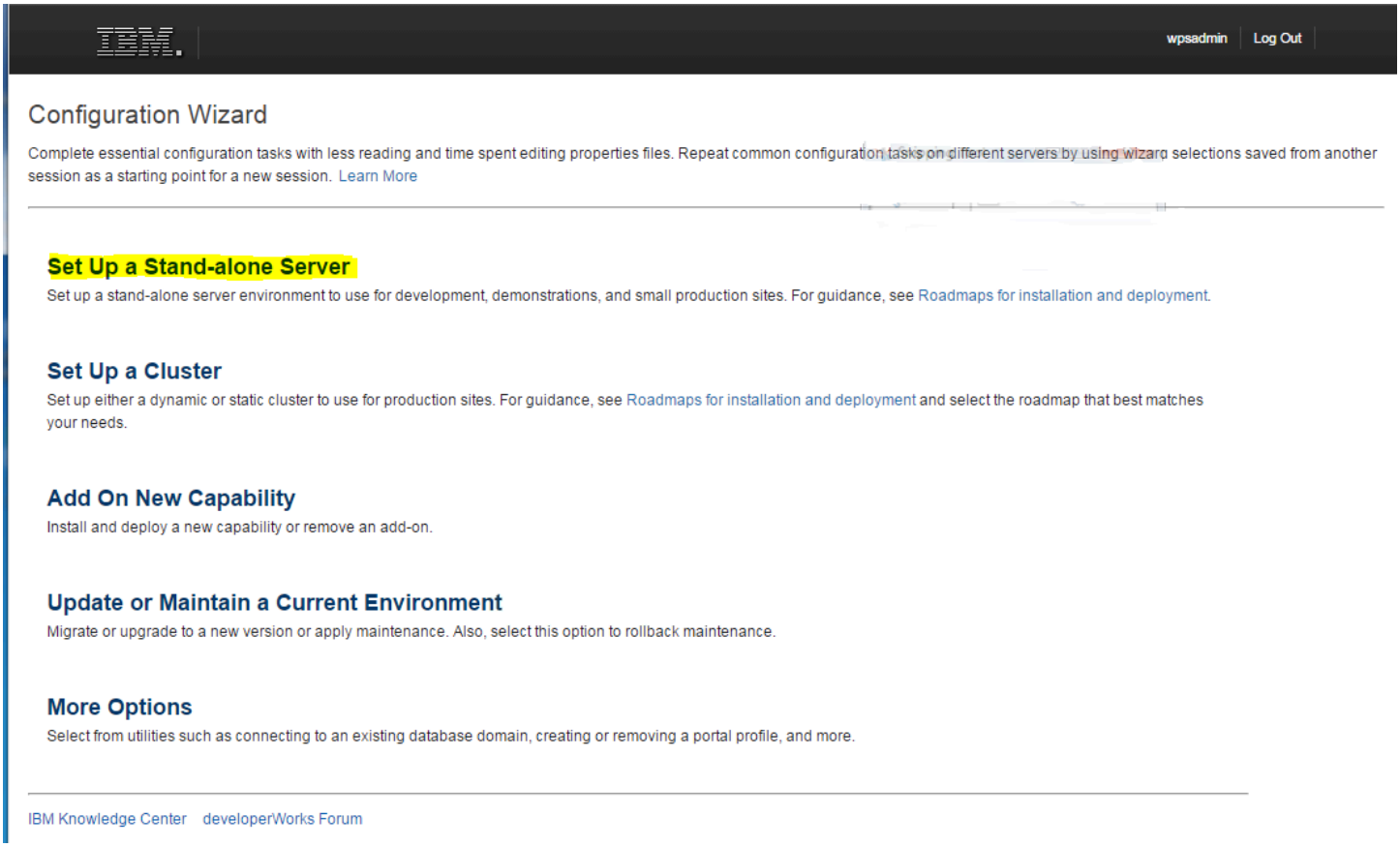


3. Select the Open Configuration Wizard hyperlink.

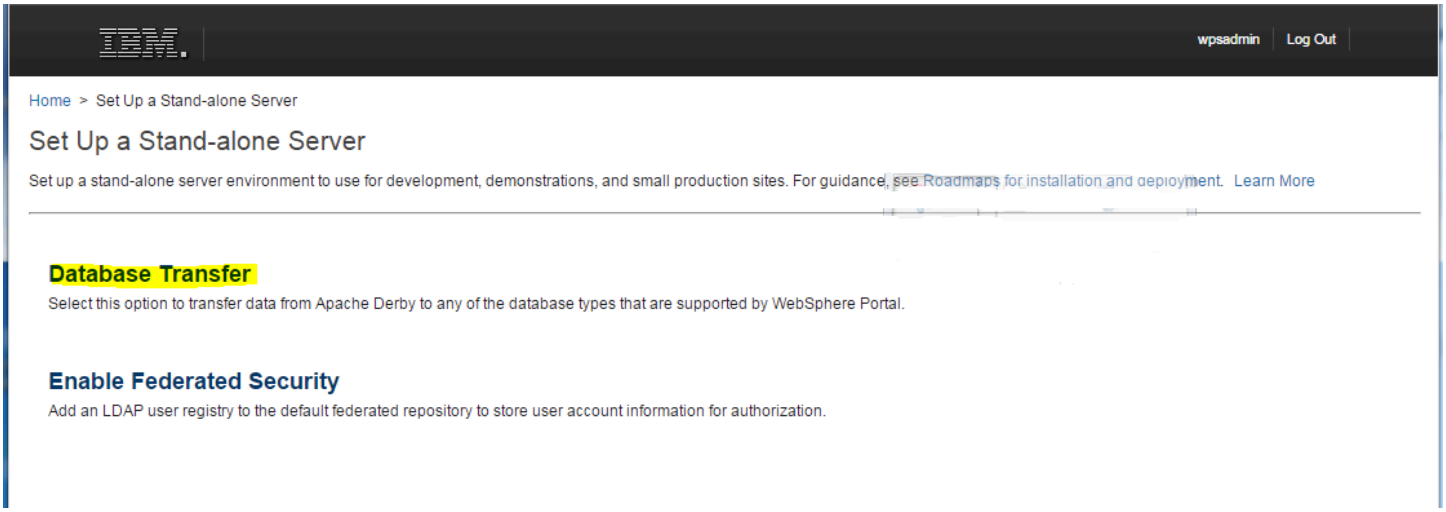
4. Select IBM WebSphere | Start the server.



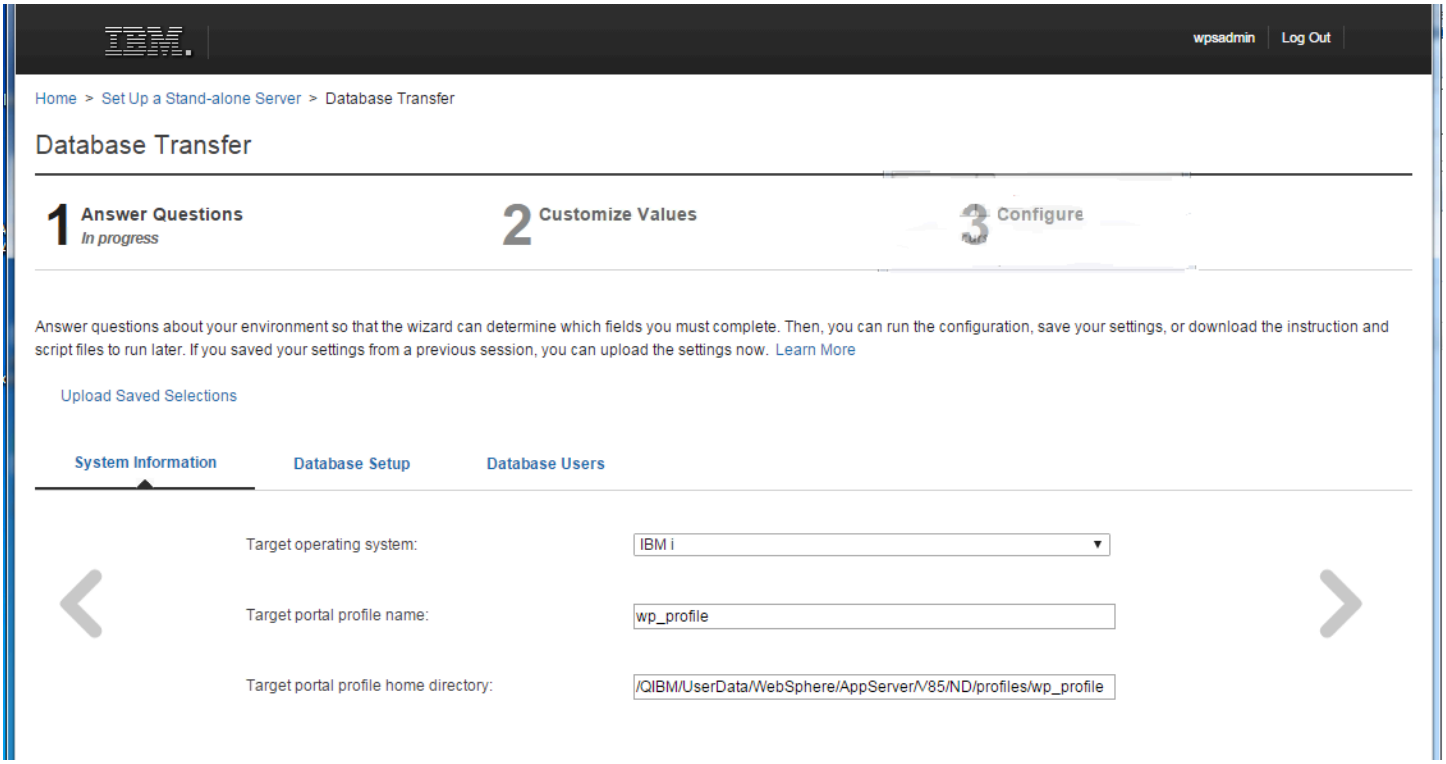
5. Enter User ID and Password to login.



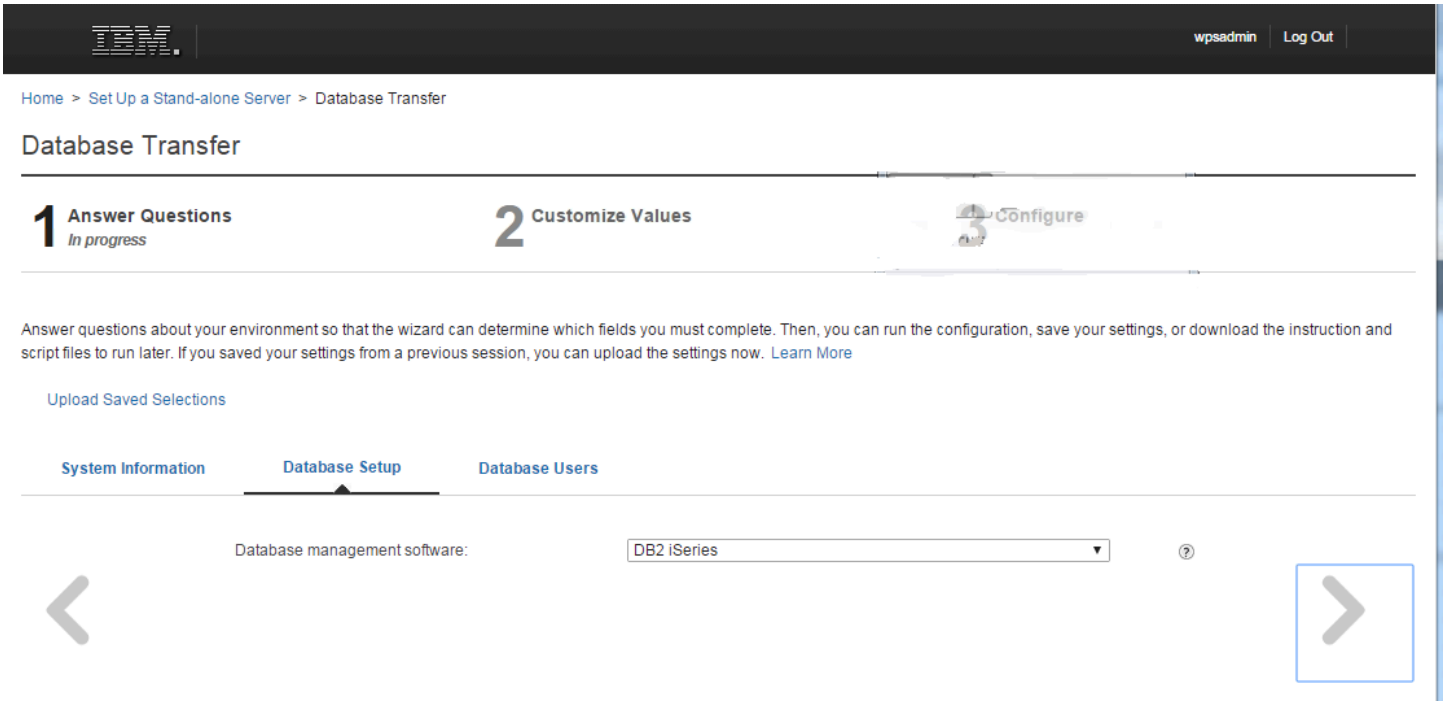
6. Select Set Up a Stand-alone Server.



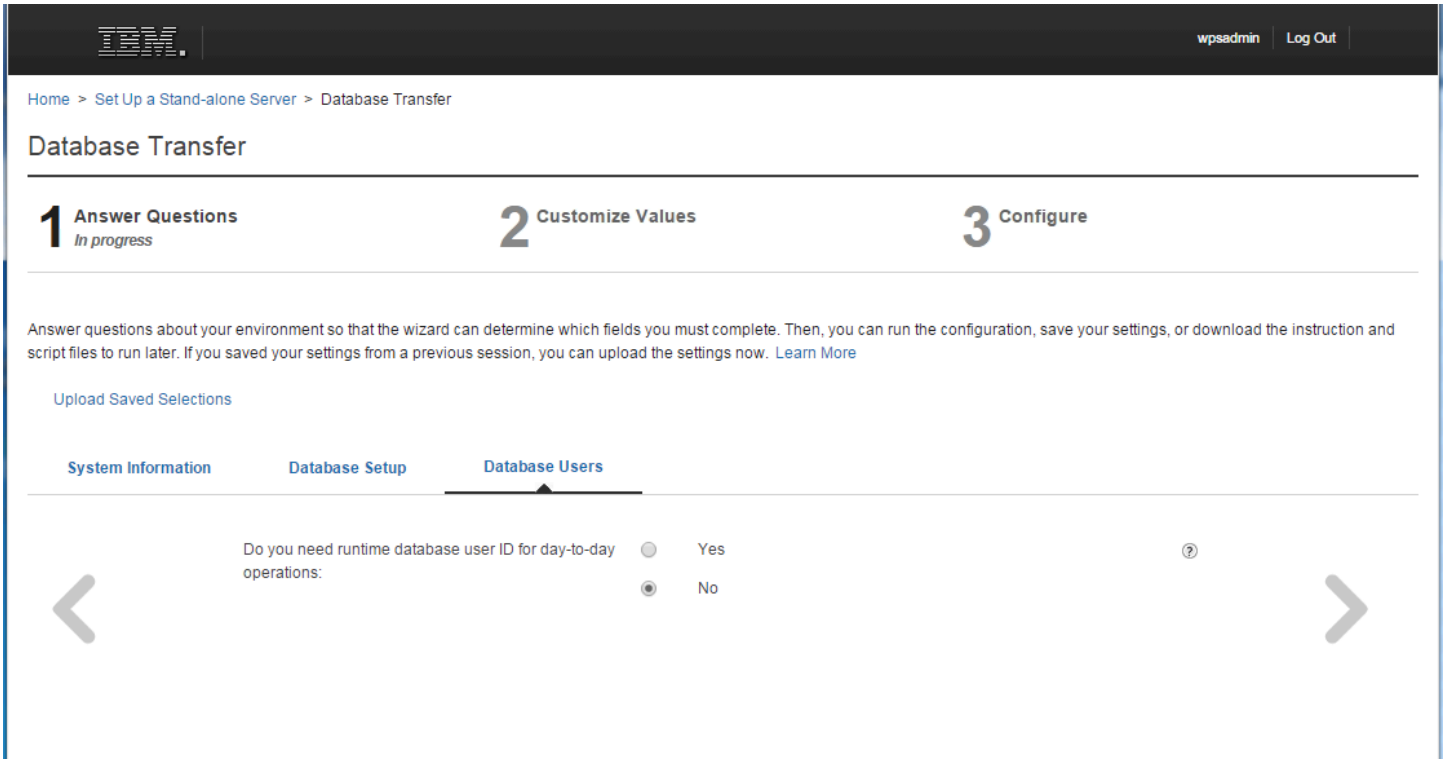
7. Select Database Transfer.



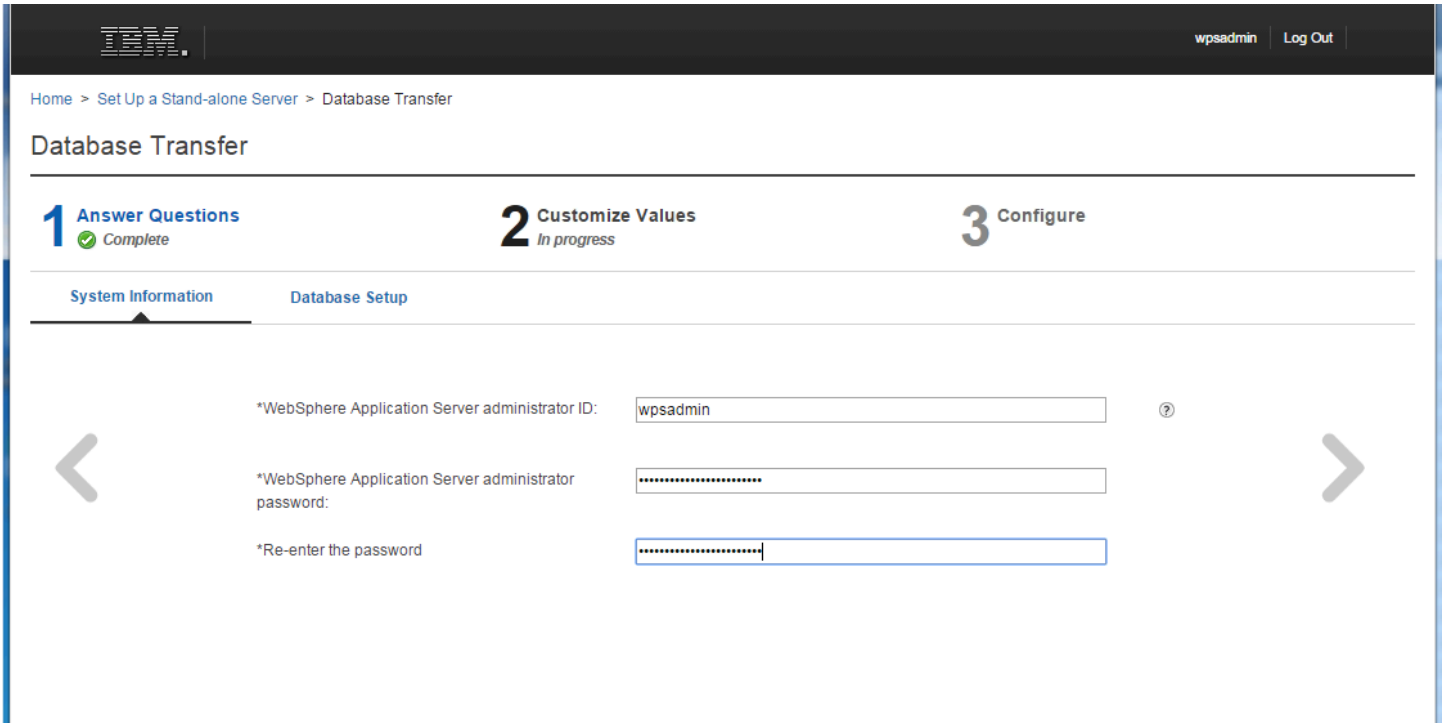
8. Answer the System Information questions for Database Transfer and then click the right arrow.



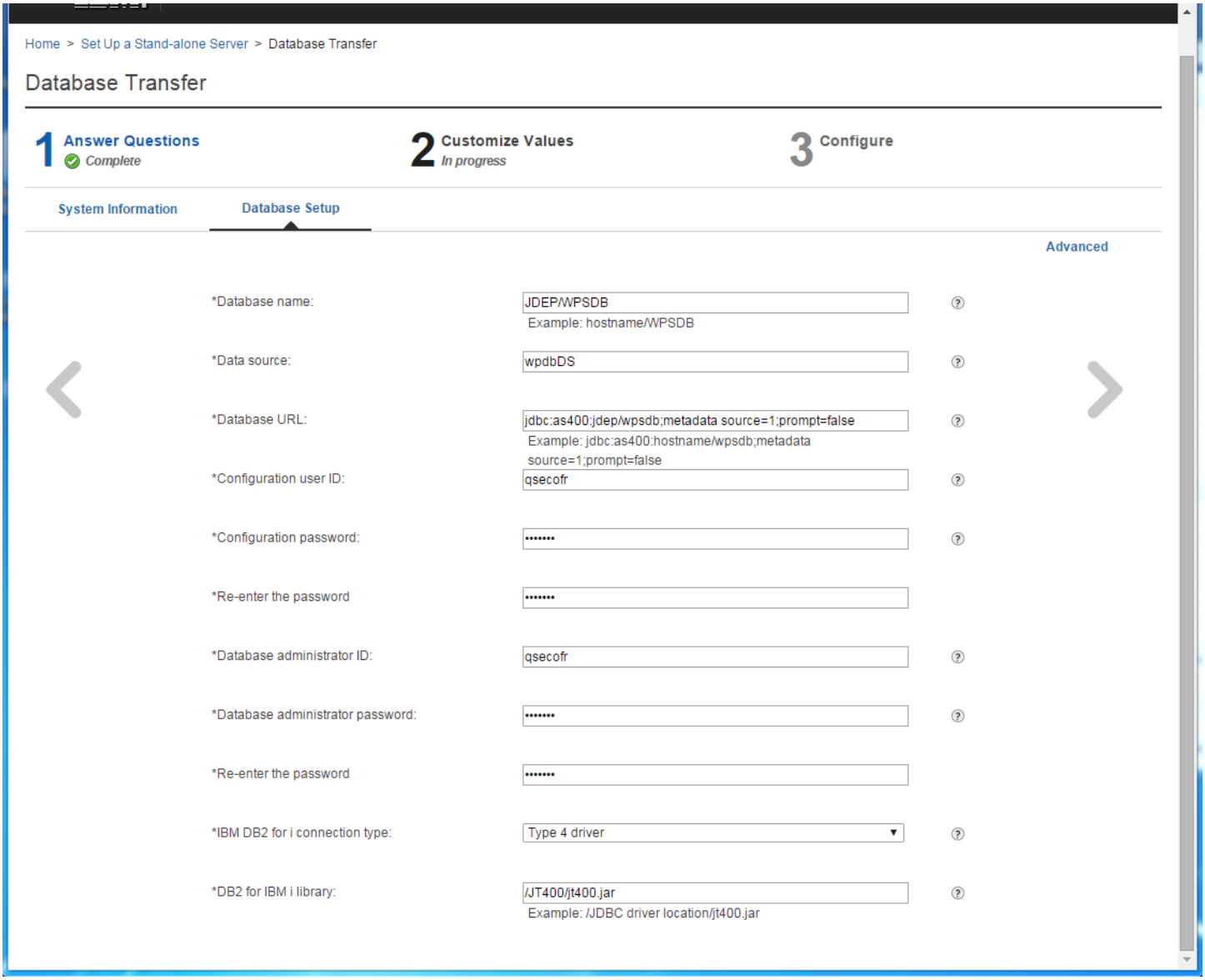
9. Select the Database management software from the dropdown values and then click the right arrow.



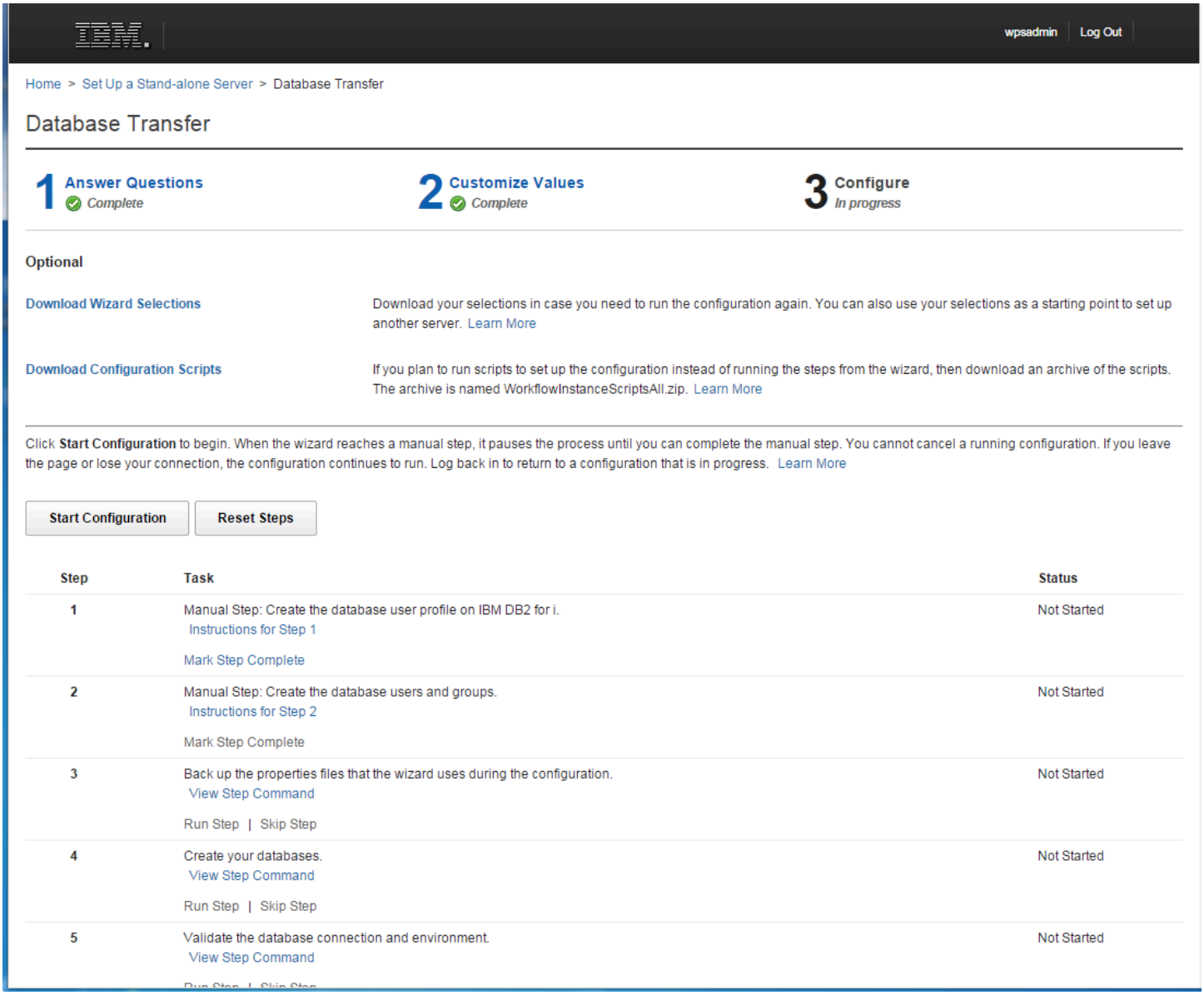
10. Answer the question for Database Users and then click the right arrow.



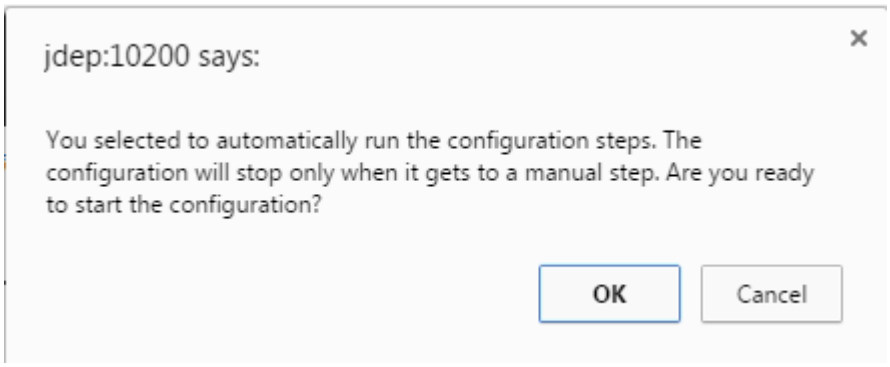
11. Answer the questions for System Information and then click the right arrow.


Home > Set Up a Stand-alone Server > Database Transfer
Database Transfer
1 Answer Questions
Complete
2 Customize Values
In progress
3 Configure
System Information
Database Setup
Advanced
*Database name:
JDEP/WPSDB
Example: hostname/WPSDB
*Data source:
wpdbDS
*Database URL:
jdbc:as400:jdep/wpsdb;metadata source=1;prompt=false
Example: jdbc:as400:hostname/wpsdb;metadata source=1;prompt=false
*Configuration user ID:
qsecofr
*Configuration password:
*Re-enter the password
*Database administrator ID:
qsecofr
*Database administrator password:
*Re-enter the password
*IBM DB2 for i connection type:
Type 4 driver
*DB2 for IBM i library:
/JT400/jt400.jar
Example: /JDBC driver location/jt400.jar

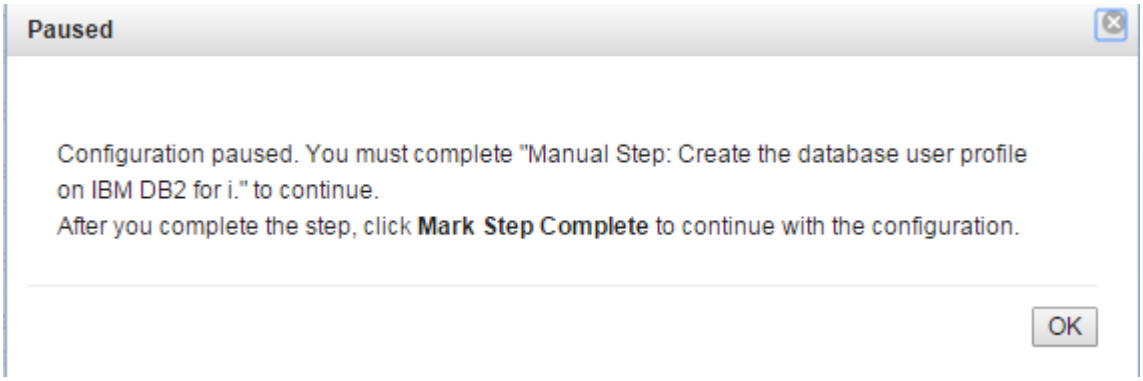
12. Enter the Database Setup parameters and then click the right arrow.


IBM
wpsadmin
Log Out
Home > Set Up a Stand-alone Server > Database Transfer
Database Transfer
1 Answer Questions
Complete
2 Customize Values
Complete
3 Configure
In progress
Optional
Download Wizard Selections
Download your selections in case you need to run the configuration again. You can also use your selections as a starting point to set up another server. Learn More
Download Configuration Scripts
If you plan to run scripts to set up the configuration instead of running the steps from the wizard, then download an archive of the scripts. The archive is named WorkflowInstanceScriptsAll.zip. Learn More
Click Start Configuration to begin. When the wizard reaches a manual step, it pauses the process until you can complete the manual step. You cannot cancel a running configuration. If you leave the page or lose your connection, the configuration continues to run. Log back in to return to a configuration that is in progress. Learn More
Start Configuration
Reset Steps
Step
Task
Status
1
Manual Step: Create the database user profile on IBM DB2 for i.
Instructions for Step 1
Mark Step Complete
Not Started
2
Manual Step: Create the database users and groups.
Instructions for Step 2
Mark Step Complete
Not Started
3
Back up the properties files that the wizard uses during the configuration.
View Step Command
Run Step | Skip Step
Not Started
4
Create your databases.
View Step Command
Run Step | Skip Step
Not Started
5
Validate the database connection and environment.
View Step Command
Not Started

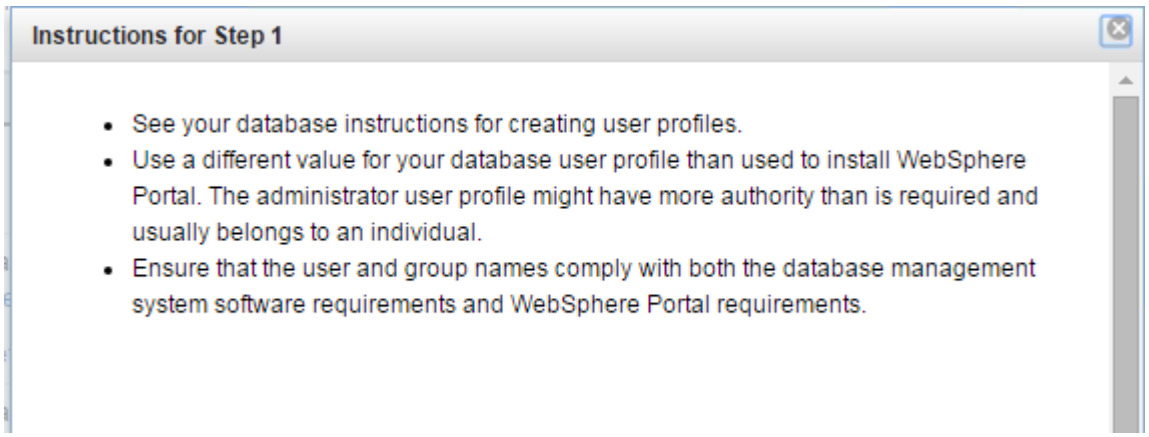
13. Click on the Start Configuration button.



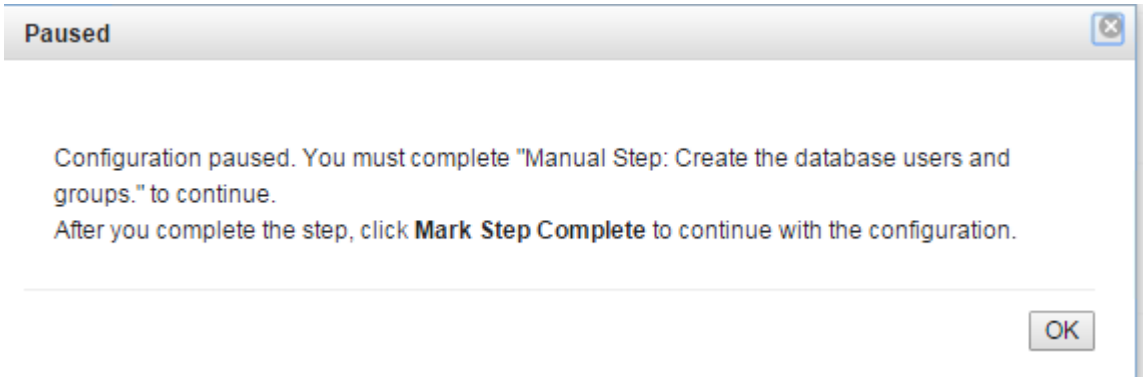
14. Click OK.



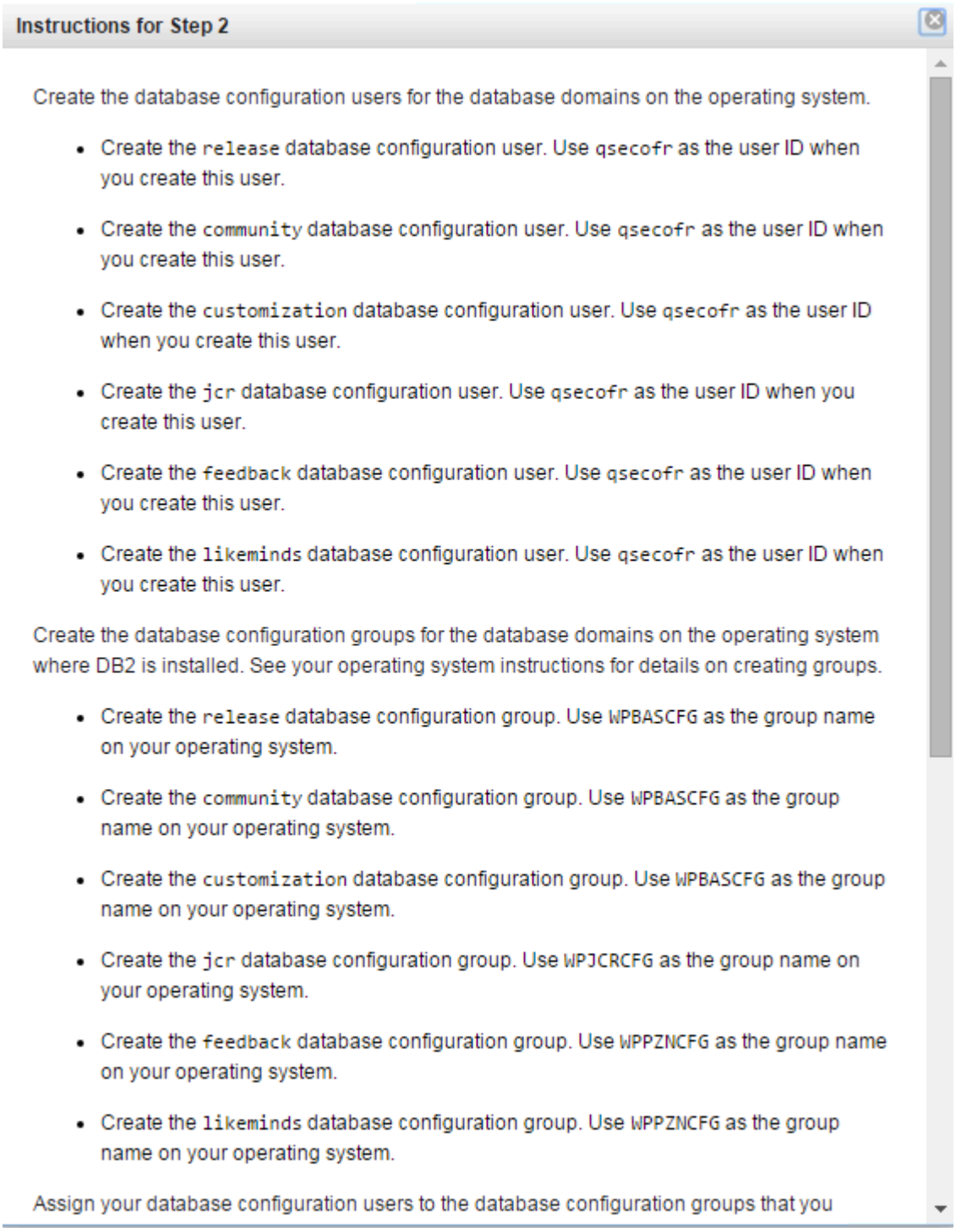
15. The configuration will pause with a notice to complete a manual step. Click OK when the manual step has been completed.



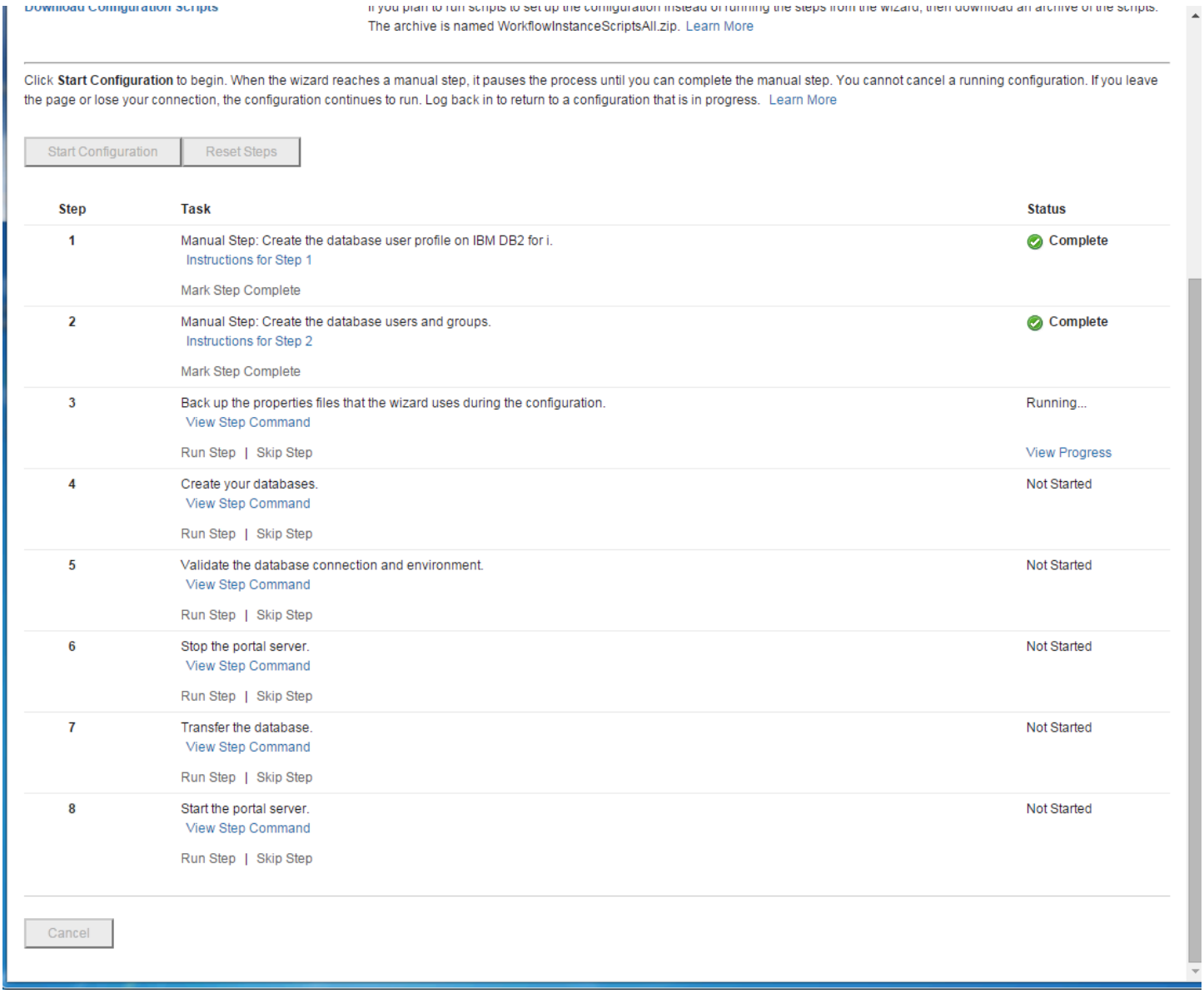
16. Follow your instructions for creating user profiles.



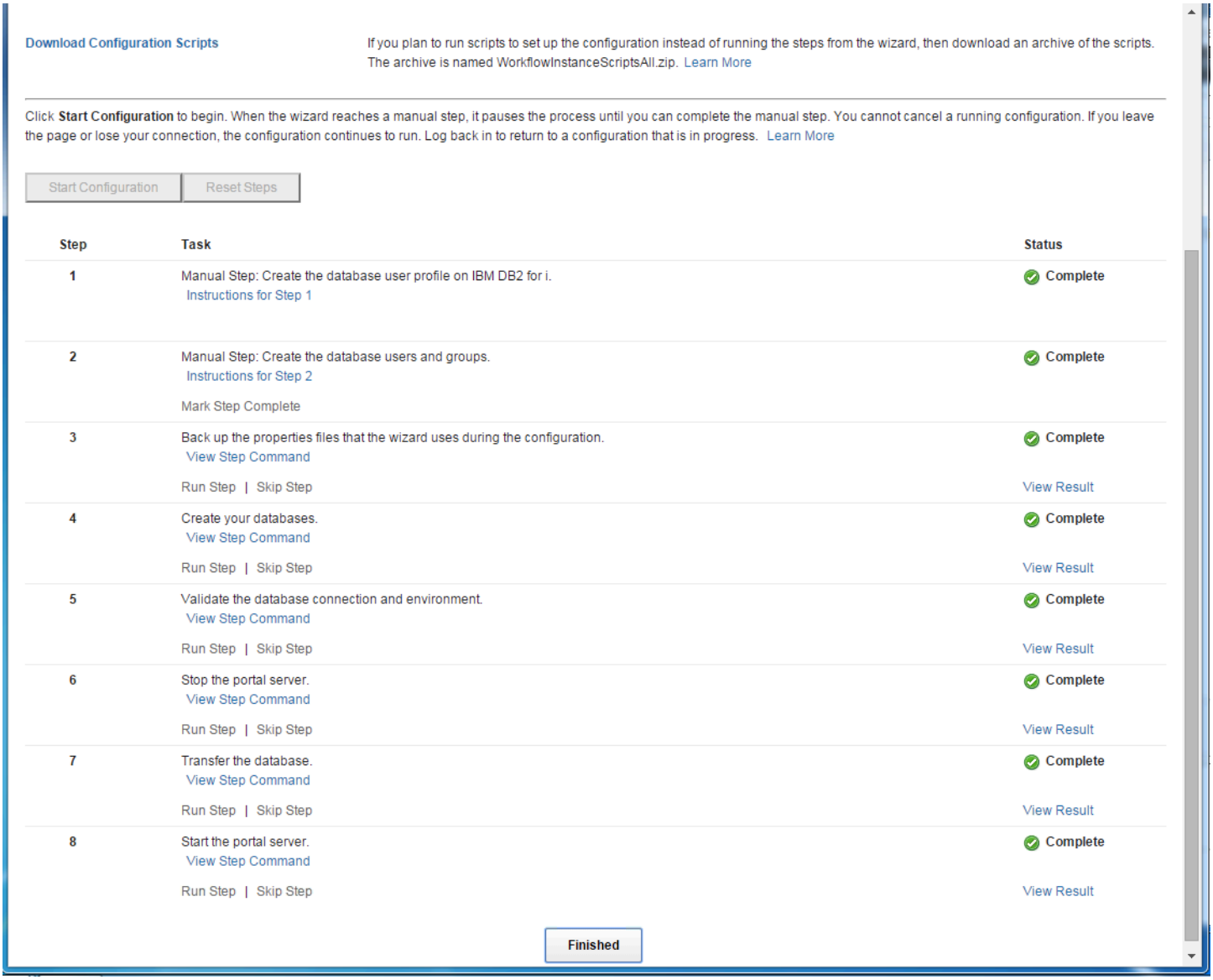
17. The configuration will pause with a notice to create the database users and groups. Click OK when manual step 1 has been completed.



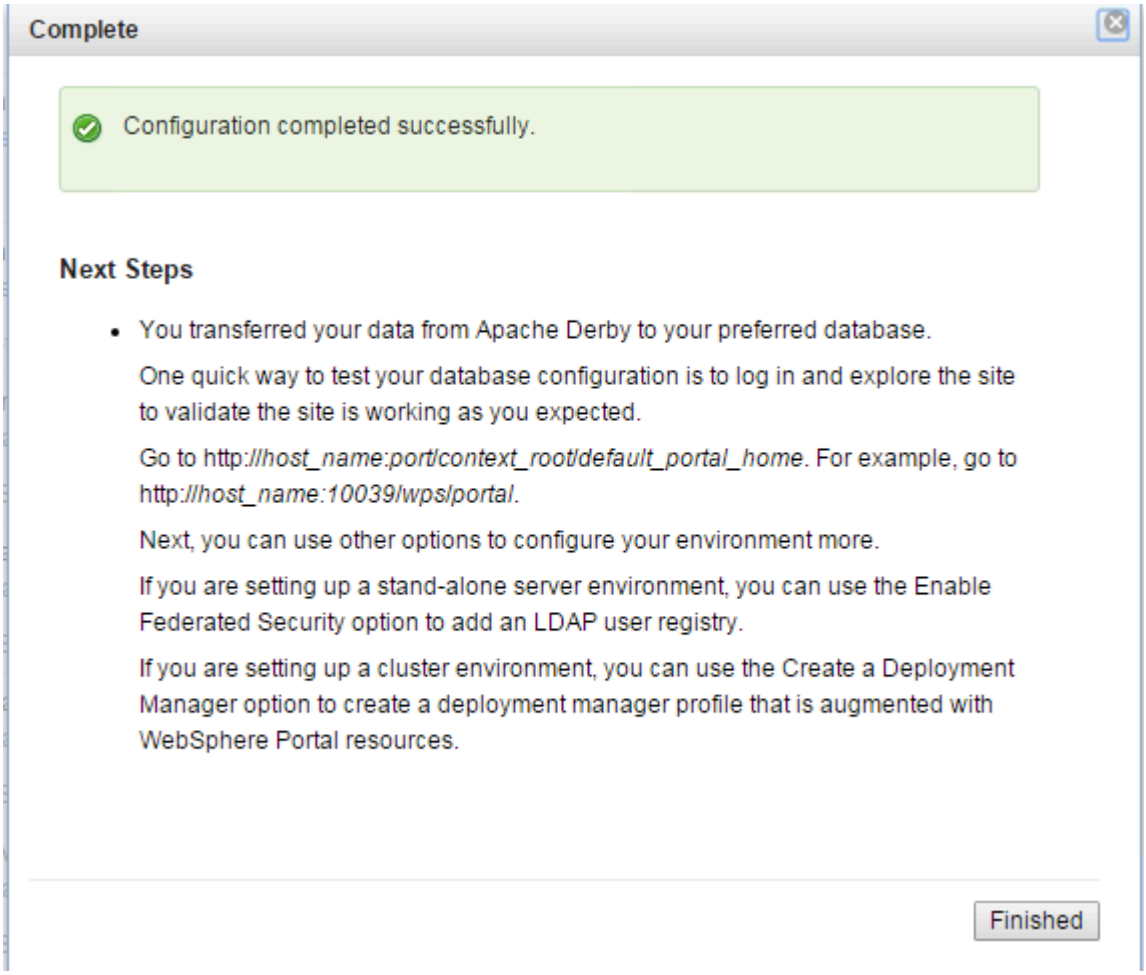
18. Perform manual step 2.


Download Configuration Scripts
If you plan to run scripts to set up the configuration instead of running the steps from the wizard, then download an archive of the scripts. The archive is named WorkflowInstanceScriptsAll.zip. Learn More
Click Start Configuration to begin. When the wizard reaches a manual step, it pauses the process until you can complete the manual step. You cannot cancel a running configuration. If you leave the page or lose your connection, the configuration continues to run. Log back in to return to a configuration that is in progress. Learn More
Start Configuration
Reset Steps
Step
Task
Status
1
Manual Step: Create the database user profile on IBM DB2 for i.
Instructions for Step 1
Mark Step Complete
Complete
2
Manual Step: Create the database users and groups.
Instructions for Step 2
Mark Step Complete
Complete
3
Back up the properties files that the wizard uses during the configuration.
View Step Command
Run Step | Skip Step
Running...
View Progress
4
Create your databases.
View Step Command
Run Step | Skip Step
Not Started
5
Validate the database connection and environment.
View Step Command
Run Step | Skip Step
Not Started
6
Stop the portal server.
View Step Command
Run Step | Skip Step
Not Started
7
Transfer the database.
View Step Command
Run Step | Skip Step
Not Started
8
Start the portal server.
View Step Command
Run Step | Skip Step
Not Started
Cancel

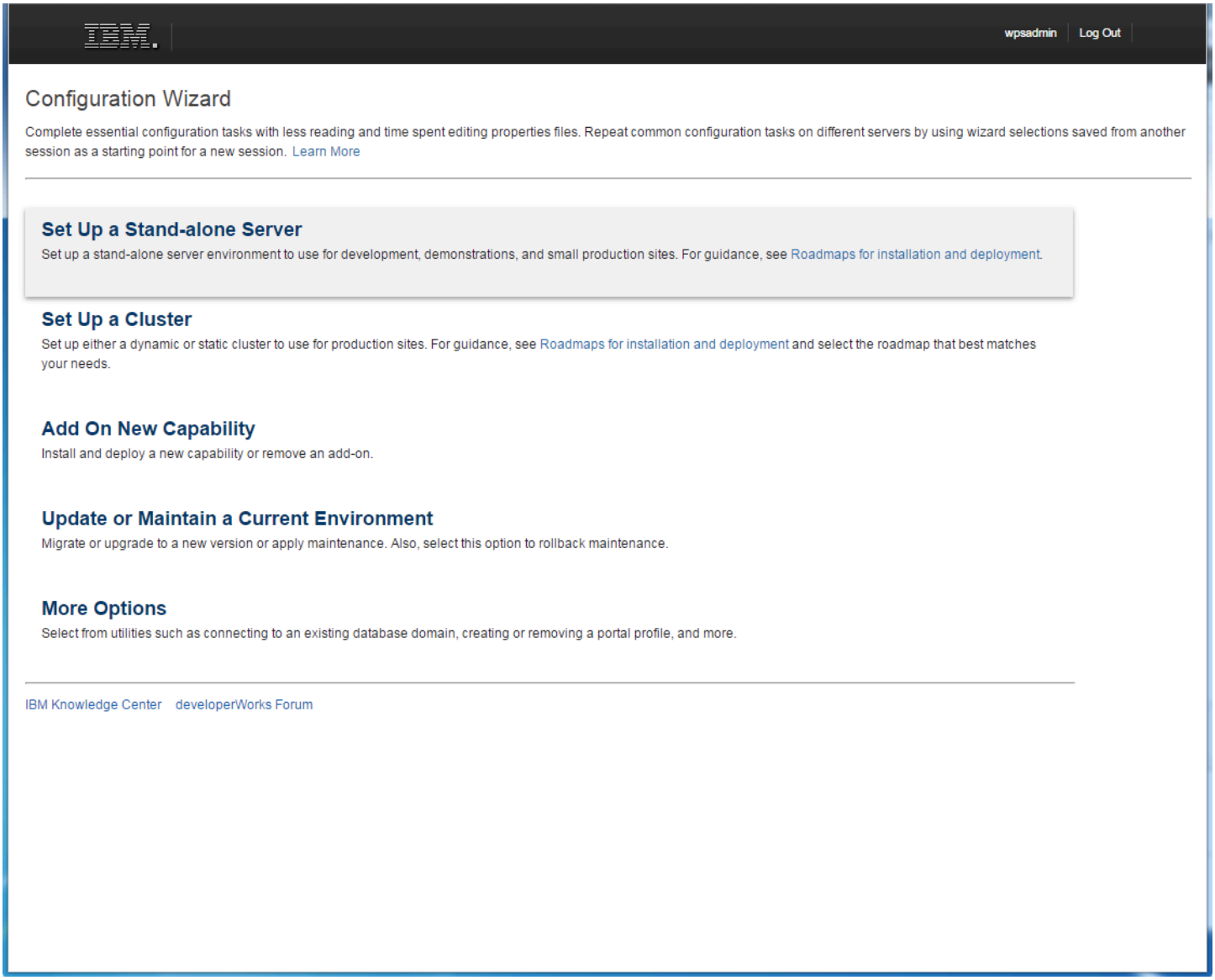
19. The configuration page will appear showing the status of the steps.


Download Configuration Scripts
If you plan to run scripts to set up the configuration instead of running the steps from the wizard, then download an archive of the scripts. The archive is named WorkflowInstanceScriptsAll.zip. Learn More
Click Start Configuration to begin. When the wizard reaches a manual step, it pauses the process until you can complete the manual step. You cannot cancel a running configuration. If you leave the page or lose your connection, the configuration continues to run. Log back in to return to a configuration that is in progress. Learn More
Start Configuration
Reset Steps
Step
Task
Status
1
Manual Step: Create the database user profile on IBM DB2 for i.
Instructions for Step 1
Complete
2
Manual Step: Create the database users and groups.
Instructions for Step 2
Mark Step Complete
Complete
3
Back up the properties files that the wizard uses during the configuration.
View Step Command
Run Step | Skip Step
Complete
View Result
4
Create your databases.
View Step Command
Run Step | Skip Step
Complete
View Result
5
Validate the database connection and environment.
View Step Command
Run Step | Skip Step
Complete
View Result
6
Stop the portal server.
View Step Command
Run Step | Skip Step
Complete
View Result
7
Transfer the database.
View Step Command
Run Step | Skip Step
Complete
View Result
8
Start the portal server.
View Step Command
Run Step | Skip Step
Complete
View Result
Finished

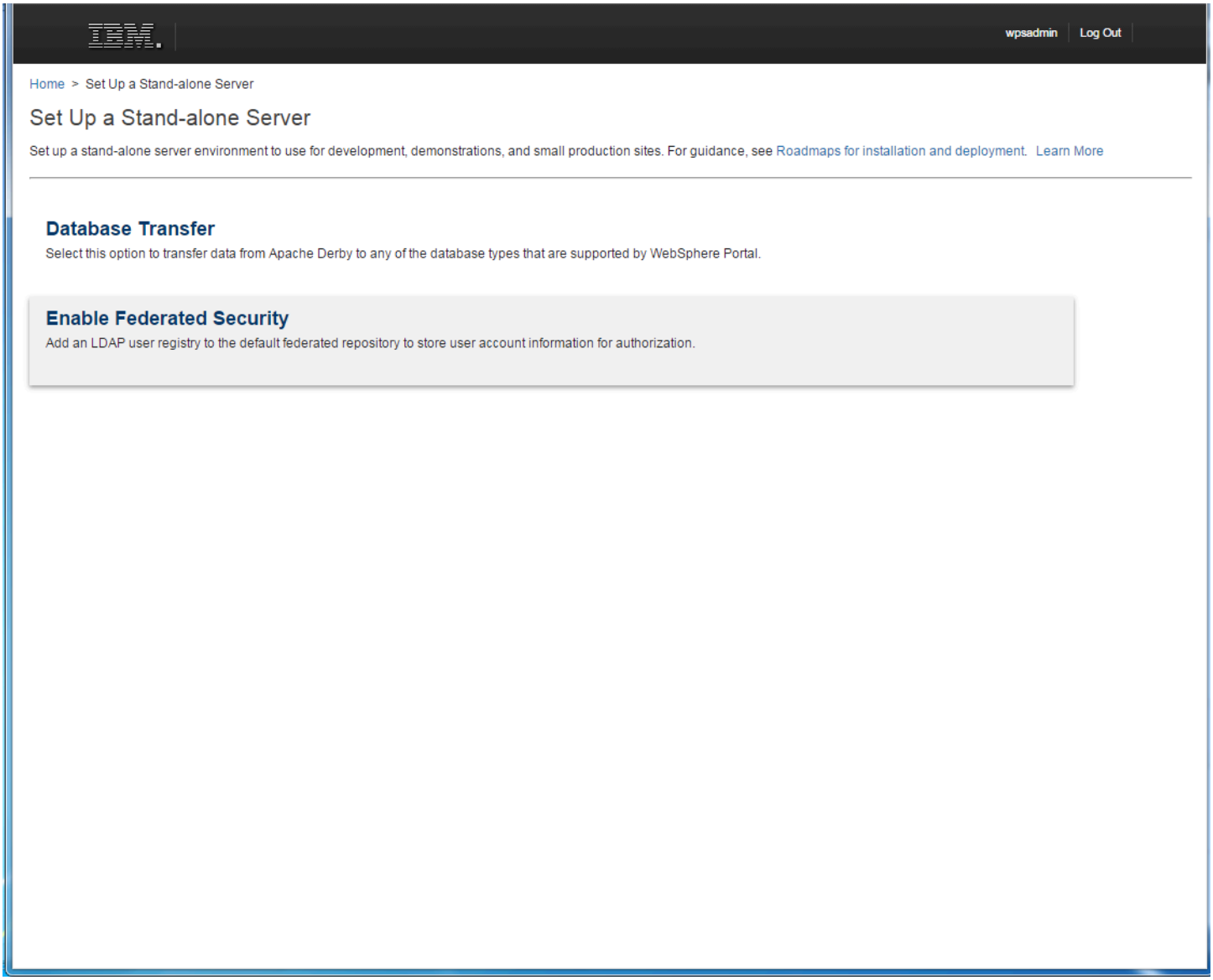
20. When the configuration has finished the status will show Completed for each step. Click the Finished button.



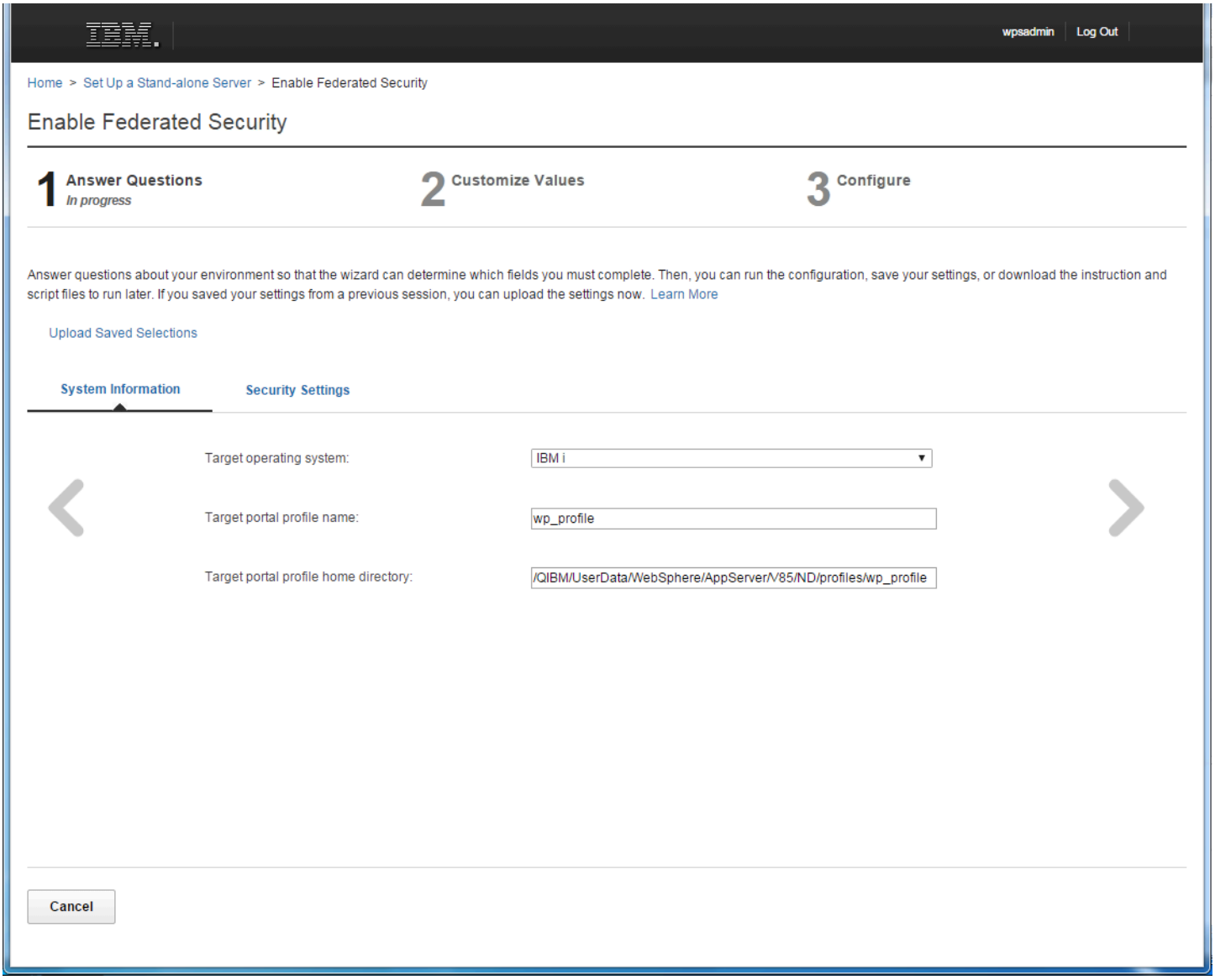
21. A confirmation page will appear providing to test and configure your environment.


wpsadmin
Log Out
Configuration Wizard
Complete essential configuration tasks with less reading and time spent editing properties files. Repeat common configuration tasks on different servers by using wizard selections saved from another session as a starting point for a new session. Learn More
Set Up a Stand-alone Server
Set up a stand-alone server environment to use for development, demonstrations, and small production sites. For guidance, see Roadmaps for installation and deployment.
Set Up a Cluster
Set up either a dynamic or static cluster to use for production sites. For guidance, see Roadmaps for installation and deployment and select the roadmap that best matches your needs.
Add On New Capability
Install and deploy a new capability or remove an add-on.
Update or Maintain a Current Environment
Migrate or upgrade to a new version or apply maintenance. Also, select this option to rollback maintenance.
More Options
Select from utilities such as connecting to an existing database domain, creating or removing a portal profile, and more.
IBM Knowledge Center
developerWorks Forum

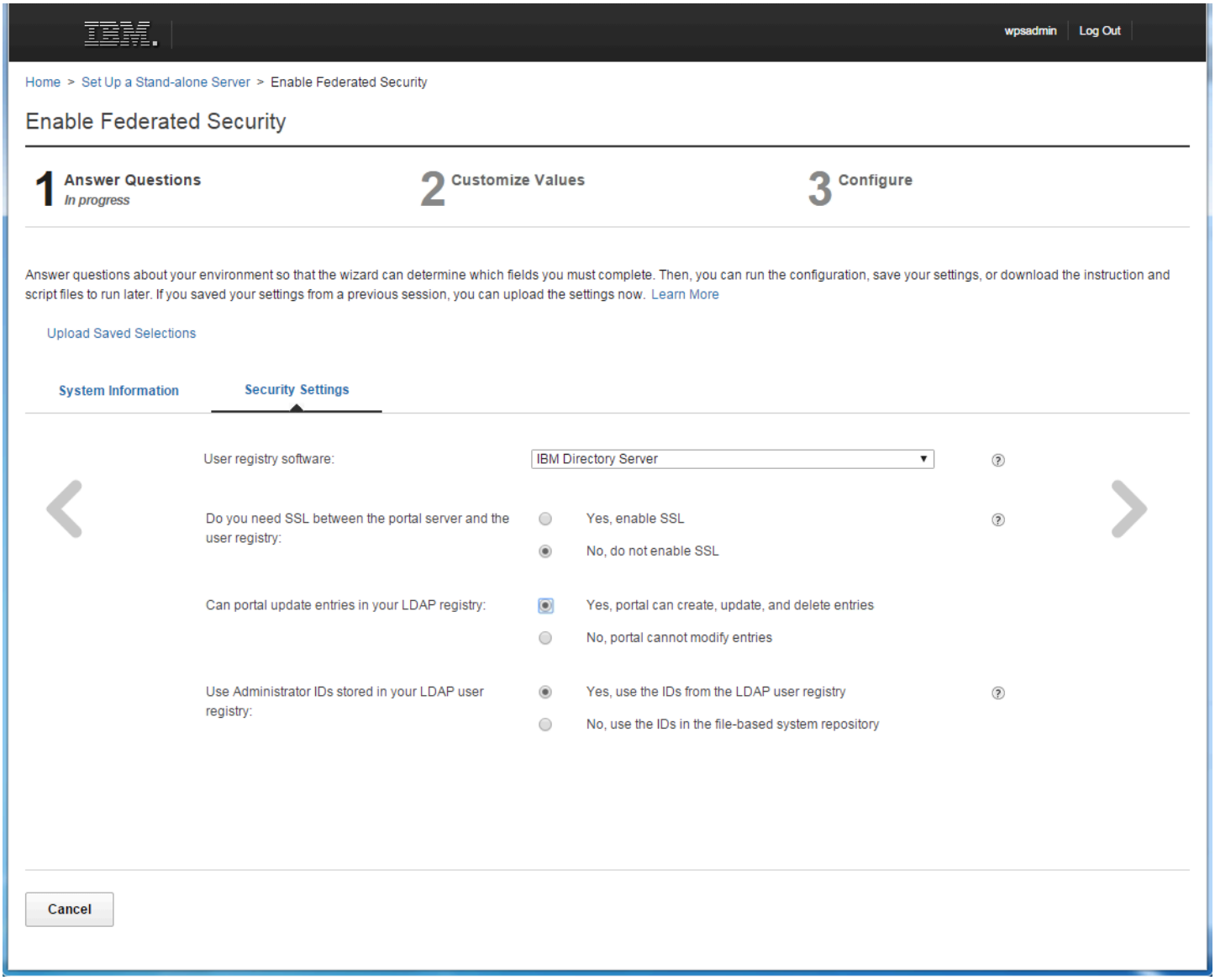
22. Select the Set Up a Stand-alone Server option.


wpsadmin
Log Out
Home > Set Up a Stand-alone Server
Set Up a Stand-alone Server
Set up a stand-alone server environment to use for development, demonstrations, and small production sites. For guidance, see Roadmaps for installation and deployment. Learn More
Database Transfer
Select this option to transfer data from Apache Derby to any of the database types that are supported by WebSphere Portal.
Enable Federated Security
Add an LDAP user registry to the default federated repository to store user account information for authorization.

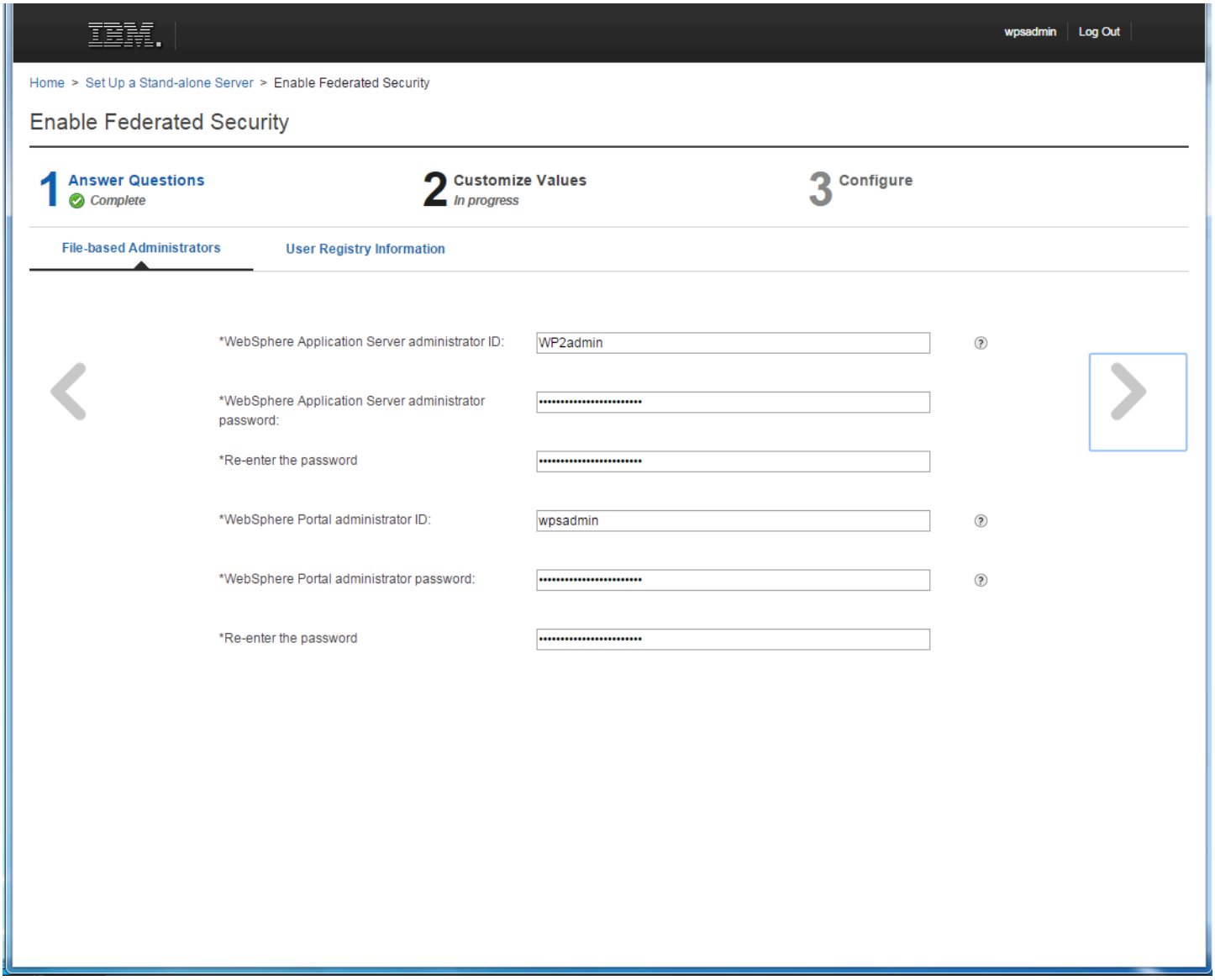
23. Select the Enable Federated Security option.


IBM
wpsadmin
Log Out
Home > Set Up a Stand-alone Server > Enable Federated Security
Enable Federated Security
1 Answer Questions
In progress
2 Customize Values
3 Configure
Answer questions about your environment so that the wizard can determine which fields you must complete. Then, you can run the configuration, save your settings, or download the instruction and script files to run later. If you saved your settings from a previous session, you can upload the settings now. Learn More
Upload Saved Selections
System Information
Security Settings
Target operating system:
IBM i
Target portal profile name:
wp_profile
Target portal profile home directory:
/QIBM/UserData/WebSphere/AppServer/V85/ND/profiles/wp_profile
Cancel

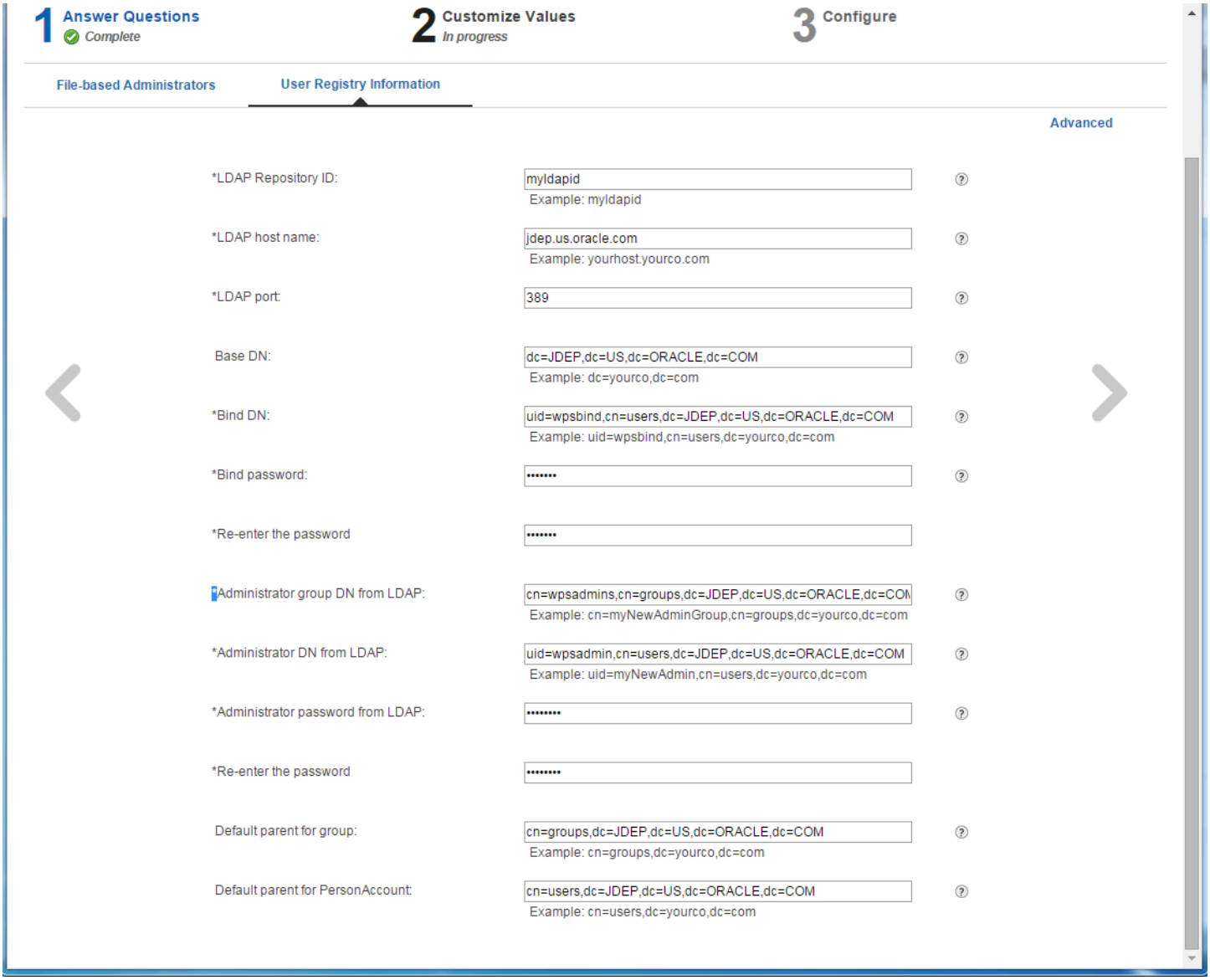
24. Answer the System Information questions for Enable Federated Security and then click the right arrow.


wpsadmin
Log Out
Home > Set Up a Stand-alone Server > Enable Federated Security
Enable Federated Security
1 Answer Questions
In progress
2 Customize Values
3 Configure
Answer questions about your environment so that the wizard can determine which fields you must complete. Then, you can run the configuration, save your settings, or download the instruction and script files to run later. If you saved your settings from a previous session, you can upload the settings now. Learn More
Upload Saved Selections
System Information
Security Settings
User registry software:
IBM Directory Server
Do you need SSL between the portal server and the user registry:
Yes, enable SSL
No, do not enable SSL
Can portal update entries in your LDAP registry:
Yes, portal can create, update, and delete entries
No, portal cannot modify entries
Use Administrator IDs stored in your LDAP user registry:
Yes, use the IDs from the LDAP user registry
No, use the IDs in the file-based system repository
Cancel

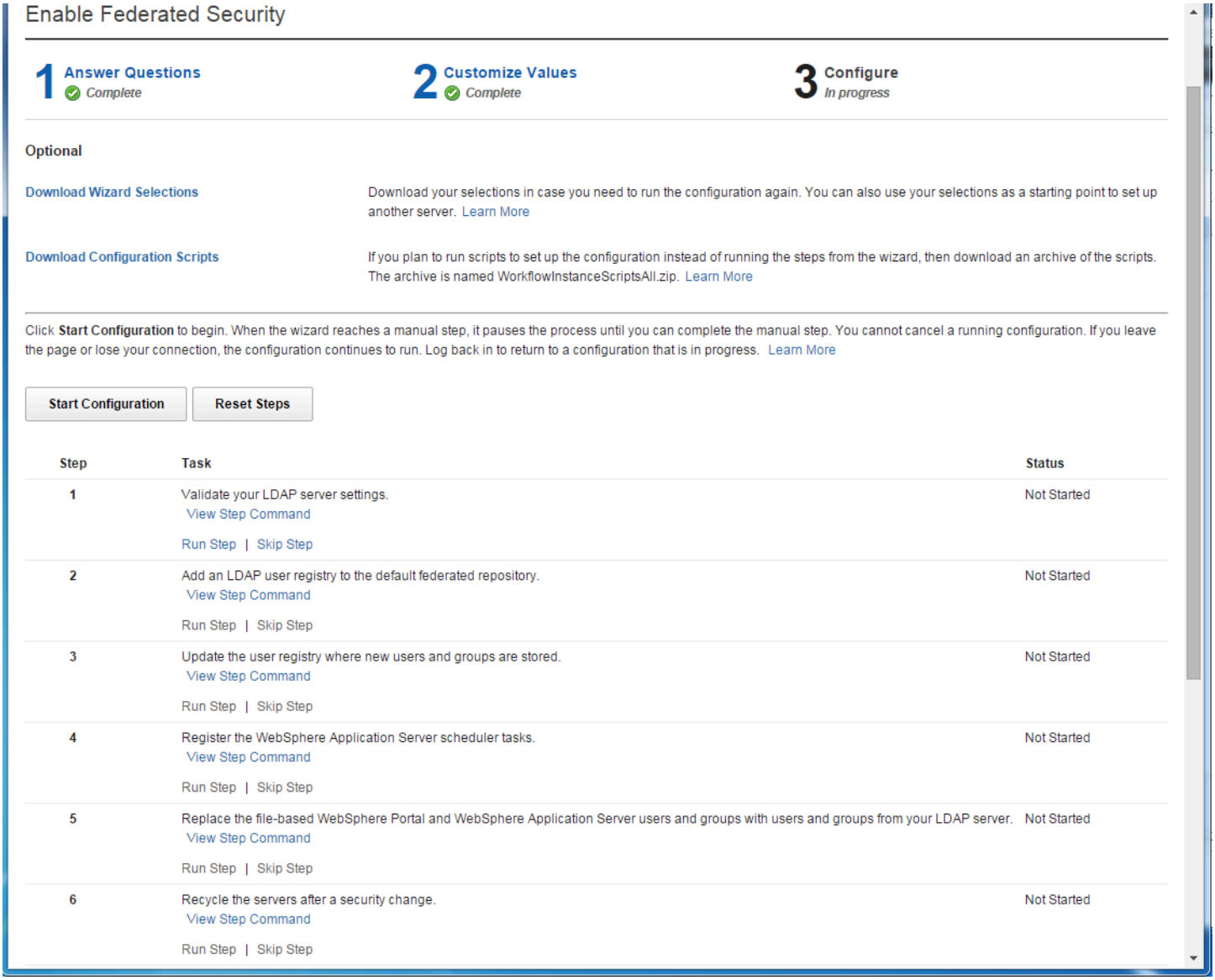
25. Answer the Security Settings questions for Enable Federated Security and then click the right arrow.


IBM
wpsadmin
Log Out
Home > Set Up a Stand-alone Server > Enable Federated Security
Enable Federated Security
1 Answer Questions
Complete
2 Customize Values
In progress
3 Configure
File-based Administrators
User Registry Information
*WebSphere Application Server administrator ID:
WP2admin
*WebSphere Application Server administrator password:
*Re-enter the password
*WebSphere Portal administrator ID:
wpsadmin
*WebSphere Portal administrator password:
*Re-enter the password

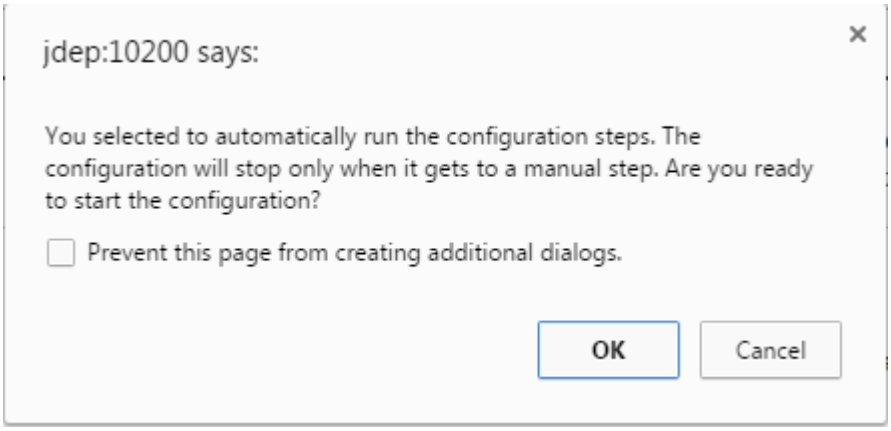
26. Enter the parameters for the File-based Administrators and then click the right arrow.


1 Answer Questions
Complete
2 Customize Values
In progress
3 Configure
File-based Administrators
User Registry Information
Advanced
*LDAP Repository ID:
myldapid
Example: myldapid
*LDAP host name:
jdep.us.oracle.com
Example: yourhost.yourco.com
*LDAP port:
389
Base DN:
dc=JDEP,dc=US,dc=ORACLE,dc=COM
Example: dc=yourco,dc=com
*Bind DN:
uid=wpsbind,cn=users,dc=JDEP,dc=US,dc=ORACLE,dc=COM
Example: uid=wpsbind,cn=users,dc=yourco,dc=com
*Bind password:
*Re-enter the password
*Administrator group DN from LDAP:
cn=wpsadmins,cn=groups,dc=JDEP,dc=US,dc=ORACLE,dc=COM
Example: cn=myNewAdminGroup,cn=groups,dc=yourco,dc=com
*Administrator DN from LDAP:
uid=wpsadmin,cn=users,dc=JDEP,dc=US,dc=ORACLE,dc=COM
Example: uid=myNewAdmin,cn=users,dc=yourco,dc=com
*Administrator password from LDAP:
*Re-enter the password
Default parent for group:
cn=groups,dc=JDEP,dc=US,dc=ORACLE,dc=COM
Example: cn=groups,dc=yourco,dc=com
Default parent for PersonAccount:
cn=users,dc=JDEP,dc=US,dc=ORACLE,dc=COM
Example: cn=users,dc=yourco,dc=com

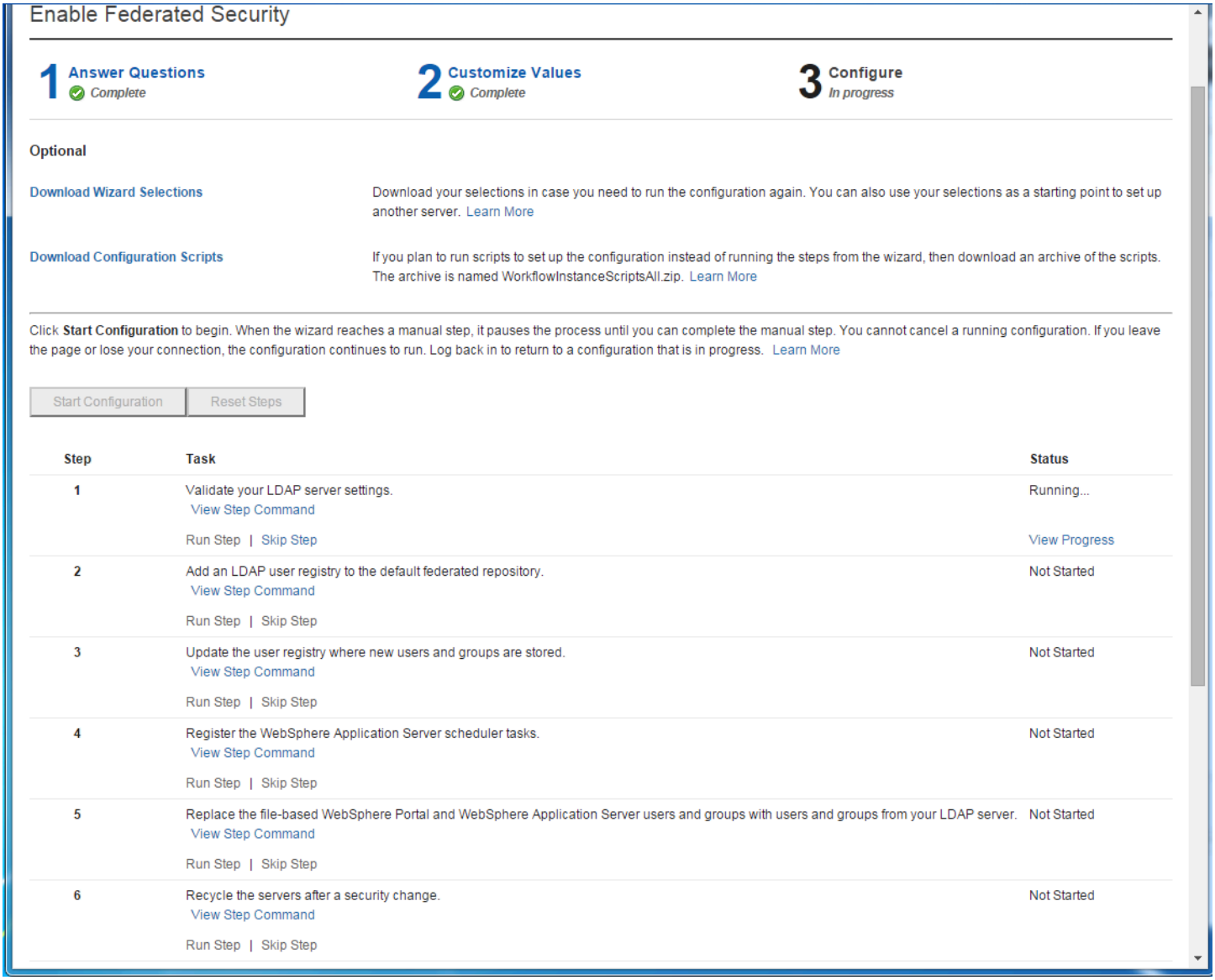
27. Enter the parameters for User Registry Information and then click the right arrow.


Enable Federated Security
1 Answer Questions
Complete
2 Customize Values
Complete
3 Configure
In progress
Optional
Download Wizard Selections
Download your selections in case you need to run the configuration again. You can also use your selections as a starting point to set up another server. Learn More
Download Configuration Scripts
If you plan to run scripts to set up the configuration instead of running the steps from the wizard, then download an archive of the scripts. The archive is named WorkflowInstanceScriptsAll.zip. Learn More
Click Start Configuration to begin. When the wizard reaches a manual step, it pauses the process until you can complete the manual step. You cannot cancel a running configuration. If you leave the page or lose your connection, the configuration continues to run. Log back in to return to a configuration that is in progress. Learn More
Start Configuration
Reset Steps
Step
Task
Status
1
Validate your LDAP server settings.
View Step Command
Run Step | Skip Step
Not Started
2
Add an LDAP user registry to the default federated repository.
View Step Command
Run Step | Skip Step
Not Started
3
Update the user registry where new users and groups are stored.
View Step Command
Run Step | Skip Step
Not Started
4
Register the WebSphere Application Server scheduler tasks.
View Step Command
Run Step | Skip Step
Not Started
5
Replace the file-based WebSphere Portal and WebSphere Application Server users and groups with users and groups from your LDAP server.
View Step Command
Run Step | Skip Step
Not Started
6
Recycle the servers after a security change.
View Step Command
Run Step | Skip Step
Not Started

28. Click the Start Configuration button.



29. Click OK to begin the configuration.


Enable Federated Security
1 Answer Questions
Complete
2 Customize Values
Complete
3 Configure
In progress
Optional
Download Wizard Selections
Download your selections in case you need to run the configuration again. You can also use your selections as a starting point to set up another server. Learn More
Download Configuration Scripts
If you plan to run scripts to set up the configuration instead of running the steps from the wizard, then download an archive of the scripts. The archive is named WorkflowInstanceScriptsAll.zip. Learn More
Click Start Configuration to begin. When the wizard reaches a manual step, it pauses the process until you can complete the manual step. You cannot cancel a running configuration. If you leave the page or lose your connection, the configuration continues to run. Log back in to return to a configuration that is in progress. Learn More
Start Configuration
Reset Steps
Step
Task
Status
1
Validate your LDAP server settings.
View Step Command
Run Step | Skip Step
Running...
View Progress
2
Add an LDAP user registry to the default federated repository.
View Step Command
Run Step | Skip Step
Not Started
3
Update the user registry where new users and groups are stored.
View Step Command
Run Step | Skip Step
Not Started
4
Register the WebSphere Application Server scheduler tasks.
View Step Command
Run Step | Skip Step
Not Started
5
Replace the file-based WebSphere Portal and WebSphere Application Server users and groups with users and groups from your LDAP server.
View Step Command
Run Step | Skip Step
Not Started
6
Recycle the servers after a security change.
View Step Command
Run Step | Skip Step
Not Started

30. The configuration screen will show the status of the steps as the configuration progresses.
31. When the configuration has finished the status will show Completed for each step. Click the Finished button.

4 Database Configuration for WebSphere Portal

Database Configuration for WebSphere Portal

By default, IBM WebSphere Portal v8.5 installs and uses an Apache Derby database. Installing with Apache Derby lets you quickly get WebSphere Portal installed and running in a proof-of-concept environment. Before using the product extensively, you should visit the IBM Information Center for Portal v8.5 to learn the advantages and disadvantages of using Apache Derby and determine how transferring to another database affects the capacity and scalability of a production environment. Please refer to the following link from IBM: ***https://www-304.ibm.com/support/docview.wss?uid=swg27019558#Databases_C-worksWith***

The Apache Derby database that is installed by default is not intended for use in a production environment or for authoring Web content. Derby does not support clustered environments, enabling security in a database-only mode, or vertical cloned environments in which multiple application servers are configured on a single server. Use one of the other supported databases in a production environment or when authoring Web content because they are better able to handle large amounts of data and can be tuned for performance.

When you choose to transfer data to another supported database such as Oracle or SQL Server or *DB2 for Linux, UNIX, and Windows database* or *DB2 for i* , perform the database transfer before you use the portal extensively. Large amounts of data in the databases can cause the database transfer to fail if your Java heap size is not large enough. Because information is added to the databases as you use the Portal, perform the database transfer as soon as it is practical to avoid problems in a production environment.

Data can be transferred from a Derby database, but cannot be transferred to a Derby database. If you are transferring from a database other than the default database, you will need to edit the wkplc.properties, wkplc_dbdomain.properties and wkplc_dbtype.properties files to update the source and target database information.

You can install the database server on the same system as WebSphere Portal, or you can install the database server on a different, also referred to as a remote system.

Using a remote database can have performance benefits. When you are deploying a large scale environment, you can dedicate a server specifically to your database. As more users are accessing the portal, the portal application becomes database intensive. Database activity can take up CPU utilization and disk I/O time. You can increase capacity by separating the database from the server that the Portal is running on increases capacity.

If you install the database server on a remote system, you may be required to install database client software on the WebSphere Portal system so the Portal can communicate with the remote database server.

Documentation in this section is taken directly from IBM WebSphere Portal v8.5 Infocenter.

5 Preparing DB2 for i

Prerequisites

Before beginning the database configuration, verify that a supported version of *DB2 for i* Database software is installed. Refer to the Minimum Technical Requirements for this information. In addition, it is strongly recommended that you visit the IBM WebSphere Portal Version v8.5 Information Center and review the “Configuring WebSphere Portal to use a database" section (*http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Windows_standalone_Configuring_WebSphere_Portal_to_use_a_database_wp7*).

To modify the wkplc.properties, wkplc_dbdomain.properties, and wkplc_dbtype.properties files to work with your database. Modify these property files before running tasks to create databases, create users, or transfer data.

Working with Properties Files

- The WebSphere Portal database can be used to hold information for applications such as Personalization (Feedback) and LikeMinds. To prepare the database to hold such application information, you should use similar naming conventions for property values such as release.DbName. Here are some examples:
  - **release.DbName=hostname/WP85REL**
  - **community.DbName=hostname/WP85COM**
  - **customization.DbName=hostname/WP85CUS**
  - **jcr.DbName=hostname/WP85JCR**
  - **feedback.DbName=hostname/WP85FBK**
  - **likeminds.DbName=hostname/WP85LKM**
- If you are using a remote database, enter the values for the remote server.
- Regardless of the operating system, use a forward slash (/) instead of a backslash (\) in the property files for file system paths.
- There might be additional database properties other than those listed here. Only change the properties within this task and skip all other properties.
- Some values, shown here in italics, might need to be modified to your specific environment.
- Password Considerations

  For security reasons, you should not store passwords in the wkplc.properties,wkplc_dbdomain.properties, and wkplc_dbtype.properties files. It is recommended that you edit each of the properties files before running a configuration task, inserting the passwords needed for that task. Then, after the task has run, you should delete all passwords from each file.
- The recommended value listed for each property represents the specific information that is required to configure WebSphere Portal to your target database.
- Depending on which database domain has to be configured, replace dbdomain with:
  - release
  - customization
  - community

  - jcr
  - feedback
  - likeminds

- The values for at least one of the following properties must be unique for the release, customization, community, and JCR domains:
  - dbdomain.DbName
  - dbdomain.DbUrl
  - dbdomain.DbSchema
- If you use the same values for all three properties across the release, customization, community, and JCR domains, the database-transfer task fails due to ambiguous database object names.
- If DbUser, DbUrl, and DbPassword are not the same across domains, the value for DataSourceName must differ from the DataSourceName of the other domains. In other words, this value must be unique for the database domain.
- When you create a schema, you must use the following schema naming conventions on the IBM® i system:

  Note: The default schema names may be used with the product.

  - Length cannot exceed 10 characters
  - All alphanumeric characters are allowed ("A" through “Z" and “1" through “0")
  - The following characters are invalid:
    - spaces
    - null values
    - asterisk (*)
    - quotation marks (")
    - colon (:)
    - greater than symbol (>)
    - less than symbol (<)
    - vertical bar (|)
    - plus sign (+)
    - semicolon (;)
    - single quotation mark (')
    - question mark (?)

Note: Make sure you know what valid schema names are and do not use a schema name which already exists on the local or remote system. Follow the documentation of the target database management system in order to define a valid schema name as restrictions apply. Note that the Create WebSphere Portal wizard will automatically check schema names for you. For more information on database and schema naming conventions, refer to the *DB2 for i* Universal Database for System i5 content in the System i5 information center.

1. Locate the following files and create a backup copy of each before changing any values:
   - wp_profile_root/ConfigEngine/properties/wkplc.properties
   - wp_profile_root/ConfigEngine/properties/wkplc_dbdomain.properties
   - wp_profile_root/ConfigEngine/properties/wkplc_dbtype.properties
   - If you are transferring from a database other than Derby: wp_profile_root/ConfigEngine/properties/wkplc_sourceDb.properties

   Default values are listed in these files. Unless otherwise noted, all values are of type alphanumeric text string. Print out the steps below for reference before modifying the properties files. Make sure to enter the appropriate values for each instance of each property. In wkplc_dbdomain.properties, most properties are repeated for each domain.
2. Use a text editor to open the properties files and enter the values that are appropriate for your environment. You can also modify each properties file locally on your System i5 system by typing the following on an OS/400 command line in a 5250 session:

   > **Note:** This step only applies when WebSphere Portal is installed on IBM i, and you are transferring to IBM *DB2 for i* .

   ```
   EDTF 'wp_profile_root/ConfigEngine/properties/property filename.properties'
   ```

   where property filename is wkplc_dbdomain, wkplc, or wkplc_dbtype.

   > **Note:** You must have a user profile on the IBM i server and must have at least *USE special authority to edit the properties file.

   > **Tip:** The steps for transferring data to another supported database section provide instructions for manually transferring data. Instead of performing the following steps, you can use the configuration wizard, which is a graphical user interface, to transfer data to another supported database. Properties must be changed before creating a database name and schema on a local or remote IBM i server.

3. Use a text editor to open the properties file wkplc_dbdomain.properties and modify the values to correspond to your environment.
   a. For dbdomain.DbType, type db2_iseries.
   b. For dbdomain.DbName, type the name of the WebSphere Portal domain database.

      > **Note:** This value is also the database element in the dbdomain.DbUrl property.

   c. For dbdomain.DbSchema, type the schema name of the database domain.

      > **Note:** Review your target database management system documentation to define a valid schema name. Some database management systems have schema name restrictions that you need to understand.

   d. For dbdomain.DataSourceName, type the name of the data source that WebSphere Portal uses to communicate with its databases.

      Do not use the following reserved words:
      - releaseDS
      - communityDS

- customizationDS
- jcrDS
- lmdbDS
- feedback

e. For dbdomain.DbUrl, type the database URL used to access the WebSphere Portal database with JDBC. The value must conform to the JDBC URL syntax specified by the database. The connection property metadata source=1 must be specified for databases running on systems older than IBM i V7R1. Refer to the following example when WebSphere Portal is installed on IBM i and you transferring data remotely or locally to *DB2 for i* :

```
dbdomain.DbUrl="jdbc:as400:daisy.mycorp.com/WPDBREL;metadata source=1"
```

Refer to the following example when WebSphere Portal is installed on Windows and you transferring data remotely to *DB2 for i* for idbdomain:

```
DbUrl="jdbc:as400:daisy.mycorp.com/WPDBREL;metadata source=1"
```

Refer to the following example when WebSphere Portal is installed on a UNIX platform, and you are transferring data to *DB2 for i* for i:dbdomain:

```
DbUrl="jdbc:as400:daisy.mycorp.com/WPDBREL;metadata source=1;prompt=false"
```

If the X11 DISPLAY is set and active, do not add the *;prompt=false* to the URL.

> **Note:** The database element of this value should match the value of DbName.

f. For dbdomain.DbUser, type the user ID for the database configuration user.

g. For dbdomain.DbPassword, type the password for the database configuration user.

h. For dbdomain.DbConfigRoleName, type the name of the group for database configuration users. Database rights are granted to this group instead of individuals. The user specified for dbdomain.DbUser must be assigned to this group.

i. **Optional**: For dbdomain.DbRuntimeUser, type the user ID of the database user that should be used by WebSphere Portal to connect to the database at runtime. If no value is specified for this setting, the database configuration user will be used to connect to the databases at runtime.

j. If dbdomain.DbRuntimeUser is specified, you must set dbdomain.DbRuntimePassword to be the password of the runtime database user.

k. For dbdomain.DbRuntimeRoleName, type the name of the group for database runtime users. Database rights are granted to this group instead of individuals. The user specified for dbdomain.DbRuntimeUser must be assigned to this group.

l. **Optional**: For dbdomain.DBA.DbUser, type the database administrator user ID for privileged access operations during database creation. If you do not need this parameter, you can either accept the default value or leave blank.

m. **Optional**: For dbdomain.DBA.DbPassword, type the database administrator password for privileged access operations during database creation. If you do not need this parameter, you can either accept the default value or leave blank.

4. Save and close the file.

5. Update the following properties in the file wkplc_dbtype.properties.

   Note: You must download the jt400.jar file before database transfer. Refer to wkplc_dbtype.properties for more information on downloading the jt400.jar file.

   a. For db2_iseries.DbDriver, type the name of the JDBC driver class.
   b. For db2_iseries.DbLibrary, type the directory and name of the .zip or .jar file that contains the JDBC driver class.
   c. For db2_iseries.JdbcProviderName, type the name of the JDBC provider that WebSphere Portal uses to communicate with its databases.
   d. For db2_iseries.DbDriverType, type the number representing the driver type for the database.
6. Save and close the file.
7. Update the WasPassword value in the wkplc.properties file. This value is the password for the WebSphere Application Server security authentication used in your environment.
8. Save and close the file.

View information on setting up user profiles for DB2 for i to work with WebSphere Portal.

Before you begin:

- The user profile for the database owner should be different from the administrator user profile used to perform the installation. The administrator user profile may have more authority than is required and usually belongs to an individual, where as the database user profile may have minimal authority and can be shared.
- Create a database user profile that does not require a password change over a period of time. If the password for the database user profile changes, WebSphere Portal must be reconfigured to use the new password.
- Create users in an environment that has the same settings as the actual runtime environment. For example, avoid creating a user in an English environment if you plan to use that user in a Turkish environment.

A remote database resides on a different system than WebSphere Portal. When you use a remote server, you must manually create the databases that are required by WebSphere Portal.

Before you begin:

- The user ID and password used must have the authority to create database libraries on the remote System i5 machine.
- For every property instance of a database that uses *LOCAL/schema, replace it with HostName/schema.

  For example, the default database and database library name for WebSphere Portal release domain is release.DbName=wpsdb. If you wanted to create this database library on a remote database, change the default value to release.DbName=hostname/wpsdb

To create all the domain database libraries, perform the following steps:

1. Start a 5250 session on the remote database machine.
2. Type the i command WRKRDBDIRE to display the Relational Database Directory Entry for Remote Location *LOCAL and make a note of the value displayed.
3. Sign off from the 5250 session.
4. Start a 5250 session on the local machine where WebSphere Portal is installed.
5. Create a Relational Database Directory Entry on the local system for the remote system using i command WRKRDBDIRE.
6. Add an entry with the following values:
   - Relational database

     The remote relational database. Use the value noted from the prior step.

- Relational database alias

  The hostname. Use the short TCP/IP hostname of the remote system
- Remote location

  The domain qualified hostname. Use the full TCP/IP hostname of the remote system
- Type

  IP
- Port number or service name

  DRDA
- Remote authentication method

  Preferred method: ENCRYPTED

  Allow lower authentication: ALWLOWER

7. Create the required *DB2 for i* packages on the remote database machine by running the following command from the local machine:

   JAVA CLASS (com.ibm.db2.jdbc.app.DB2PackageCreator) PARM('rdb_alias' 'userid' 'password') PROP((jdbc.drivers 'com.ibm.as400.access.AS400JDBCDriver'))where rdb_alias matches the name of the Relational Database Entry you created in step 2, where userid is the database administrator user ID on the remote machine, and where password is the database administrator password on the remote machine.

   The output should be: Java program completed
8. Press F3 to exit Java Shell Display.
9. Sign off from the 5250 session.
10. Start a 5250 session on the remote database machine.
11. Verify the required *DB2 for i* packages were created by running the command WRKOBJ OBJ(QGPL/QSQCL*) OBJTYPE(*SQLPKG)

    The output should be:

```
Opt  Object      Type      Library     Attribute   Text
     QSQCLIPKGA  *SQLPKG   QGPL        PACKAGE
     QSQCLIPKGC  *SQLPKG   QGPL        PACKAGE
     QSQCLIPKGL  *SQLPKG   QGPL        PACKAGE
     QSQCLIPKGN  *SQLPKG   QGPL        PACKAGE
     QSQCLIPKGS  *SQLPKG   QGPL        PACKAGE
```

12. Start a 5250 session on the local machine where WebSphere Portal is installed.
13. On the command line, enter the following to change directories: cd wp_profile_root/ConfigEngine.
14. Press Enter.
15. Change the property values in the configuration properties files before entering the following on the command line:

    ConfigEngine.sh create-database
16. Press Enter.

View the steps to manually transfer data to the IBM® DB2 for i Universal Database™ database you have set up. As an alternative to the manual database transfer procedure described here, you can use the configuration wizard to complete the database transfer task. However, you cannot specify all settings through the configuration wizard. For example, regardless of the method used to transfer data, you must run a configuration task to create JMS resources as described in this topic.

Before you begin, ensure that the following prerequisites are met:

- Supported database software is installed.
- Databases and users are set up.

1. Stop both the server1 and WebSphere_Portal servers:
   - stopServer server1 -username admin_userid -password admin_password
   - stopServer WebSphere_Portal -username admin_userid -password admin_password
2. Validate configuration properties using the ConfigEngine.sh validate-database -DWasPassword=password command.

   Tip: Add the -DTransferDomainList parameter to the above validating task to specify the domains you want to validate; for example: -DTransferDomainList=jcr. If you want to validate all domains, you do not need to specify this parameter on the command line.

3. Transfer the database:
   a. Enter the following command:

   ```
   ConfigEngine.sh database-transfer -DWasPassword=password
   ```

   Note:

   To select specific database domains to transfer, modify the-DTransferDomainList specified in the command to include only the domains that you want to transfer. For example, to transfer only the JCR domain you can enter the following command:

   ```
   ./ConfigEngine.sh database-transfer-DTransferDomainList=jcr-DWasPassword=password
   ```

   This note only applies when transferring databases from *DB2 for i* to another server with *DB2 for i*. If you are transferring databases from a database other than *DB2 for i*, you can skip this note. Use SBMJOB to submit the Qshell script as a batch job to run in *BASE pool when *INTERACT pool does not have 1GB or more of allocated memory. For example: SBMJOB CMD(STRQSH CMD(ConfigEngine.sh database-transfer-DWasPassword=password))

   b. After running the task, a message is added to the following log file for you to verify the task ran successfully: wp_profile_root/ConfigEngine/log/ConfigTrace.log
   If the configuration fails, verify the values in the wkplc.properties, wkplc_dbdomain.properties, andwkplc_dbtype.properties files and then repeat this step.
4. Run the ConfigEngine.sh create-jcr-jms-resources-post-dbxfer -DWasPassword=password command to create JMS resources in the new database.

   Note: Regardless of the method used to transfer data (configuration wizard or the steps in this topic), you must run this task to create JMS resources.

5. Start the WebSphere Portal server.
   See Starting and stopping servers, deployment managers, and node agents for instructions.

Compare the following file on all nodes with the file from the primary node. Ensure all instances of the file are identical: **`wp_profile_root/PortalServer/jcr/lib/com/ibm/icm/icm.properties`**. If the files are not identical, copy icm.properties from the primary node on which you ran the database-transfer task to the node.

1. Stop the portal server on the secondary node.
2. Copy wp_profile_root/PortalServer/jcr/lib/com/ibm/icm/icm.properties from the primary node and replaceicm.properties on the secondary node.
3. Start the portal server on the secondary node.

Verifying Database Connections

After WebSphere Portal is configured to work with your database, test the database connection to ensure that it operates correctly. You can verify the connection from a browser or from a command line.

To verify that WebSphere Portal is running from a browser, open the portal in a Web browser: *http://hostname.yourco.com:port_number/wps/portal*, where hostname.yourco.com is the fully qualifiedhost name of the machine where WebSphere Portal is running and port_number is the transport port that is created by IBM® WebSphere® Application Server.

There may be an error if any of the following conditions appear:

- When trying to access the portal you get a 503 error.
- If you had any locale problems with your database, you could see invalid characters, such as ????, after logging in. This may happen if the character set of the database is not UTF-8 compliant.
- If something went wrong with the data that was transferred, you may not be able to log in. WebSphere Portal will indicate you entered an invalid user ID and password even though you know it is valid.

Verify the connection from a command line by completing the following steps:

1. Open a command line on the local machine where WebSphere Portal is installed.
2. For WebSphere Portal on WebSphere Application Server (UserData path), enter the following on the command line: cd wp_profile_root/ConfigEngine.
3. Enter the following command:

   ConfigEngine.sh validate-database-connection -DTransferDomainList=release,community,customization,jcr,feedback,likeminds -DWasPassword=password

   For security reasons, you should not leave passwords in the wkplc_dbdomain.properties file. Edit the file before running a configuration task and insert the passwords that are needed for that task. After the task has run, delete all passwords from the file. Alternatively, you can specify the password on the command line rather than update the wkplc_dbdomain.properties file. For example: ConfigEngine.sh -DPortalAdminPwd=password -DWasPassword=password validate-database When installing WebSphere Portal, the passwords in the wkplc_dbdomain.properties file are automatically removed after configuration.

Configuring WebSphere Portal to Use a User Registry on IBMi

If you plan to use a Tivoli Directory Server as an LDAP user registry, you must install and set up the server so that it will communicate with IBM WebSphere Portal.

Perform the following steps to prepare Tivoli Directory Server:

1. Customize the LDAP directory servers settings using the Directory Services Configuration Wizard. You must have *ALLOBJ and *IOSYSCFG special authority to use the wizard. Go to IBM System i and i5/OS Information Center, select the appropriate Information Center version and navigate to e-business and Web serving > Security and Directory Server > IBM Directory Server for *IBM i* for information.

   > **Note:** Due to a restriction in Tivoli Directory Server, users or groups must not contain a Turkish uppercase dotted I or lowercase dotted i in the DN as this will prevent correct retrieval of that user or group.

2. Perform the following steps to create the WebSphere Portal administrative user:

   a. Optional: Perform the following steps to create a new directory suffix:

      - Go to IBM System i and i5/OS Information Center, select the appropriate Information Center version and navigate to Networking > TCP/IP applications, protocols, and services > IBM Directory Server for *IBM i* (LDAP) > Administering Directory Server > Adding and Removing Directory Server suffixes for information.
      - Stop and restart the LDAP server.

   b. Open the appropriate LDIF file, located in the root directory of the CD setup, with a text editor:

      - Use the PortalUsers.ldif file as a working example and adapted appropriately to work with your LDAP server.
      - Use the ContentUsers.ldif file for the *DB2 for i* Content Manager group and user IDs if you configured *DB2 for i* Content Manager.

   c. Replace every dc=yourco,dc=com with your suffix.
   d. Replace any prefixes and suffixes that are unique to your LDAP server.
   e. You can specify user names other than wpsadmin and wpsbind. For security reasons, specify nontrivial passwords for these administrator accounts.
   f. **Optional**: If using IBM Tivoli® Access Manager for e-business Version 5.1, set the objectclasses to accessGroup. If using Tivoli Access Manager Version 6, set the objectclasses to groupOfNames.
   g. Save your changes.
   h. Follow the instructions provided with your directory server to import the LDIF file.
   i. Stop and restart the LDAP server.

Configuring a Standalone LDAP User Registry on IBMi

If you plan to use a Tivoli Directory Server as an LDAP user registry, you must install and set up the server so that it will communicate with IBM® WebSphere® Portal.

Perform the following steps to prepare Tivoli Directory Server:

1. Customize the LDAP directory servers settings using the Directory Services Configuration Wizard. You must have *ALLOBJ and*IOSYSCFG special authority to use the wizard. Go to IBM System i and i5/OS Information Center, select the appropriate Information Center version and navigate to e-business and Web serving -> Security and IBM Tivoli Directory Server for i5/OS (LDAP) -> IBM Tivoli Directory Server for i5/OS (LDAP) for information.

   > **Note:** Due to a restriction in Tivoli Directory Server, users or groups must not contain a Turkish uppercase dotted I or lowercase dotted i in the DN as this will prevent correct retrieval of that user or group.

2. Perform the following steps to create the WebSphere Portal administrative user:

   a. Optional: Perform the following steps to create a new directory suffix:

      - Go to IBM System i and i5/OS Information Center, select the appropriate Information Center version and navigate to Networking -> TCP/IP applications, protocols, and services -> IBM Directory Server for *IBM i* (LDAP) -> Administering Directory Server -> General administration tasks -> Adding and Removing Directory Server suffixes for information.
      - Stop and restart the LDAP server.

   b. Open the appropriate LDIF file, located in the root directory of the CD setup, with a text editor:

      Use the PortalUsers.ldif file as a working example and adapted appropriately to work with your LDAP server. Use the ContentUsers.ldif file for the *DB2 for i* ® Content Manager group and user IDs if you configured *DB2 for i* Content Manager.

   c. Replace every dc=yourco,dc=com with your suffix.

   d. Replace any prefixes and suffixes that are unique to your LDAP server.

   e. You can specify user names other than wpsadmin and wpsbind. For security reasons, specify nontrivial passwords for these administrator accounts.

   f. **Optional**: If using IBM Tivoli® Access Manager Version 5.1, set the objectclasses to accessGroup. If using Tivoli Access Manager Version 6, set the objectclasses to groupOfNames.

   g. Save your changes.

   h. Follow the instructions provided with your directory server to import the LDIF file.

   i. Stop and restart the LDAP server.

Standalone LDAP without SSL

Configure IBM® WebSphere® Portal to use a standalone LDAP user registry to store all user account information for authorization.

In a single server environment the following task does not have a dependency on the server status; therefore, the WebSphere_Portal and server1 servers can be either stopped or started. In a clustered environment you must stop all application servers on the system including WebSphere_Portal and server1 and then start the nodeagent and deployment manager servers before starting the following task.

If you need to rerun the wp-modify-ldap-security task to change the LDAP repositories or because the task failed, you must choose a new name for the realm using the standalone.ldap.realm parameter or you can set ignoreDuplicateIDs=true in thewklpc.properties file, before rerunning the task.

Perform the following steps to configure a standalone LDAP user registry:

Note: Use the wp_security_xxx.properties helper file, located in the wp_profile_root/ConfigEngine/config/ helpersdirectory, when performing this task to ensure the correct properties are entered. In the instructions below, when the step refers to thewkplc.properties file, you will use your wp_security_xxx.properties helper file.

1. Use a text editor to open the wkplc.properties file, located in the wp_profile_root/ConfigEngine/properties directory.
2. Required: Enter a value for the following required parameters in the wkplc.properties file under the Stand-alone security heading:

   Note: See the properties file for specific information about the required parameters and for advanced parameters.

   ```
   standalone.ldap.id
   standalone.ldap.host
   standalone.ldap.port
   standalone.ldap.bindDN
   standalone.ldap.bindPassword
   standalone.ldap.ldapServerType
   standalone.ldap.userIdMap
   standalone.ldap.groupIdMap
   standalone.ldap.groupMemberIdMap
   standalone.ldap.userFilter
   standalone.ldap.groupFilter
   standalone.ldap.serverId
   standalone.ldap.serverPassword
   standalone.ldap.realm
   standalone.ldap.primaryAdminId
   standalone.ldap.primaryAdminPassword
   standalone.ldap.primaryPortalAdminId
   standalone.ldap.primaryPortalAdminPassword
   standalone.ldap.primaryPortalAdminGroup
   standalone.ldap.baseDN
   ```
3. Required: Enter a value for the following required entity types parameters in the wkplc.properties file under the LDAP entity types heading:

   Note: See the properties file for specific information about the required parameters and for advanced parameters.

   ```
   standalone.ldap.et.group.objectClasses
   standalone.ldap.et.group.objectClassesForCreate
   standalone.ldap.et.group.searchBases
   standalone.ldap.et.personaccount.objectClasses
   standalone.ldap.et.personaccount.objectClassesForCreate
   standalone.ldap.et.personaccount.searchBases
   ```
4. Required: Enter a value for the following required group member parameters in the wkplc.properties file under the Group member attributes heading:

   Note: See the properties file for specific information about the required parameters and for advanced parameters.

   ```
   standalone.ldap.gm.groupMemberName
   standalone.ldap.gm.objectClass
   standalone.ldap.gm.scope
   standalone.ldap.gm.dummyMember
   ```

5. Required: Enter a value for the following required relative distinguished name (RDN®) parameters in the wkplc.propertiesfile under the Default parent, RDN attribute heading:

   Note: See the properties file for specific information about the required parameters and for advanced parameters.

   ```
   standalone.ldap.personAccountParent
   standalone.ldap.groupParent
   standalone.ldap.personAccountRdnProperties
   standalone.ldap.groupRdnProperties
   ```

6. Save your changes to the wkplc.properties file.
7. Run the ConfigEngine.sh validate-standalone-ldap -DWasPassword=password task to validate your LDAP server settings.

   Note: If you have not deleted the default file repository, WasPassword is the value entered during installation and not a value found in your LDAP user registry.

   Note: During the validation task, you may receive the following prompt: Add signer to the trust store now? Press y, then Enter.

8. Run the ConfigEngine.sh wp-modify-ldap-security -DWasPassword=password task, from the wp_profile_root/ConfigEngine directory, to set the standalone LDAP user registry.
9. Stop and restart the appropriate servers to propagate the changes. For specific instructions, see the following link under Related tasks: Starting and stopping servers, deployment managers, and node agents.
10. Run the ConfigEngine.sh wp-validate-standalone-ldap-attribute-config -DWasPassword=password task, from the wp_profile_root/ConfigEngine directory, to check that all defined attributes are available in the configured LDAP user registry.

    Note: When you finish configuring your LDAP user registry, see “Adapting the attribute configuration" for information about adding and mapping attributes to ensure proper communication between WebSphere Portal and the LDAP server.

11. Optional: Run the Member Fixer task to update the member names used by Web Content Management with the corresponding members in the LDAP directory. This step ensures that access to the Web content libraries for the Intranet and Internet Site Templates for the contentAuthors group is correctly mapped to the appropriate group in the LDAP directory.

    Note: This step is only needed if you have installed the product with Web Content Management and intend to use the Intranet and Internet Site Templates that were optionally installed with the product by running the configure-express task.

    a. Edit the wp_profile_root/PortalServer/wcm/shared/app/config/wcmservices/MemberFixerModule.properties file.
    b. Add the following lines to the file:

       ```
       uid=xyzadmin,o=defaultWIMFileBasedRealm -> portal_admin_DN
       cn=contentauthors,o=defaultWIMFileBasedRealm -> content_authors_group_DN
       ```

       Where portal_admin_DN is the distinguished name of the portal administrator and content_authors_group_DN is the distinguished name of the content authors group used during LDAP configuration.

       Important:

Note:

- Ensure the portal administrator you specify for portal_admin_DN is a member of the group you specify forcontent_authors_group_DN, otherwise the portal administrator cannot access the Web content libraries for the Intranet and Internet Site Templates.
- If you plan to run the express-memberfixer task in an environment with multiple realms, remove the cn=contentauthors,o=defaultWIMFileBasedRealm group if it exists. If this group exists in an environment with multiple realms, the Member Fixer task does not have any effect.

c. Save your changes and close the file.
d. Run the ConfigEngine.sh express-memberfixer -DmemberfixerRealm=realm_name -DPortalAdminPwd=password -DWasPassword=password task, located in the wp_profile_root/ConfigEngine directory.

Note: Choose the appropriate value to enter for realm_name depending on the type of LDAP user registry you configured.

The following tables describes the value for realm_name when running the Member Fixer task to update the member names used by Web Content Management:

Type of LDAP	Value
Standalone LDAP	The value specified for realm_name should match the value forstandalone.ldap.realm in the wkplc.properties file.

12. Optional: Assign access to the Web content libraries.

a. Log in as a portal administrator.
b. Navigate to Administration -> Portal Content -> Web Content Libraries.
c. Click the Set permissions icon for the Web library.
d. Click the Edit Role icon for Editor.
e. Add the group you specified for content_authors_group_DN as an Editor for the Intranet and Internet libraries.
f. Click Apply then Done.
g. If you have created any additional Web Content Management libraries, run the Web content member fixer task to update the member names used by the libraries.

Standalone LDAP over SSL

Configure IBM® WebSphere® Portal to use a standalone LDAP user registry over SSL to store all user account information for secure authorization.

In a single server environment the following task does not have a dependency on the server status; therefore, the WebSphere_Portal and server1 servers can be either stopped or started. In a clustered environment you must stop

all application servers on the system including WebSphere_Portal and server1 and then start the nodeagent and deployment manager servers before starting the following task.

Perform the following steps to configure a standalone LDAP user registry over SSL:

Note: Use the wp_security_xxx.properties helper file, located in the wp_profile_root/ConfigEngine/config/ helpersdirectory, when performing this task to ensure the correct properties are entered. In the instructions below, when the step refers to thewkplc.properties file, you will use your wp_security_xxx.properties helper file.

1. Complete the following steps to add the SSL certificate for the LDAP server to the server trust store and the client trust store:

   a. Choose one of the following to add the certificate to the server trust store:

      The following table describes the options for adding the SSL certificate to the server trust store:

Option	Steps
Add the certificate to the server trust store	i. Log in to the WebSphere Application Server Administrative Console. ii. Navigate to Security -> SSL certificate and key management -> SSL configurations. iii. Click the appropriate SSL configuration from the list. For example, Stand-alone environments:NodeDefaultSSLSettings Clustered environments: CellDefaultSSLSettings iv. Click Key stores and certificates. v. Click the appropriate trust store from the list. For example, Stand-alone environments: NodeDefaultTrustStore Clustered environments: CellDefaultTrustStore vi. Click Signer certificates, click Add, and then enter the following information: Type the Alias the key store uses for the signer certificate. Type the File name where the signer certificate is located. vii. Click OK and then click Save to save the changes to the master configuration.
Retrieve the certificate from the port	i. Log in to the WebSphere Application Server Administrative Console. ii. Navigate to Security -> SSL certificate and key management -> SSL configurations. iii. Click the appropriate SSL configuration from the list. For example, Stand-alone environments:NodeDefaultSSLSettings Clustered environments: CellDefaultSSLSettings iv. Click Key stores and certificates. v. Click the appropriate trust store from the list. For example, Stand-alone environments: NodeDefaultTrustStore Clustered environments: CellDefaultTrustStore vi. Click Signer certificates, click Retrieve from port, and then enter the following information: Type the Host name used when attempting to retrieve the signer certificate from the SSL port. Type the SSL Port used when attempting to retrieve the signer certificate. Type the Alias the key store uses for the signer certificate. Clustered environments: Ensure the setting for SSL configuration for outbound connection matches your SSL settings. vii. Click Retrieve signer information to retrieve the certificate from the port. viii. Click OK and then click Save to save the changes to the master configuration.

b. Add the certificate to the client trust store:

- See "Secure installation for client signer retrieval."
- Run the retrieveSigners task from the wp_profile_root/bin directory; see retrieveSigners command for information. In a deployed environment, you will need to run the retrieveSigners task, for any federated node, against the Deployment Manager.

> **Note:** This task might report an error, but it does successfully update the trust store. You can ignore the error message.

Example task:

Stand-alone environments

```
retrieveSigners.sh NodeDefaultTrustStore ClientDefaultTrustStore -autoAcceptBootstrapSigner
-conntype SOAP -port port_number
```

Clustered environments

```
retrieveSigners.sh CellDefaultTrustStore ClientDefaultTrustStore -autoAcceptBootstrapSigner
-conntype SOAP -port port_number
```

When prompted, enter the following:

Realm/Cell Name: name

Username: user_ID

Password: password

The following message displays: CWPKI0308I: Adding signer alias “alias_name" to local keystore “ClientDefaultTrustStore" with the following SHA digest: ssl_certificate_fingerprint

- Update the trust store properties file.

Clustered environments:

Perform the following steps on the primary node then resynchronize through the Deployment Manager to propagate the changes.

Check each node to ensure that ssl.client.props contains the same values as on the primary node. If the values in ssl.client.props are not identical for a particular node, restart that server to synchronize the changes.

Open ssl.client.props with any text editor in the following directory: wp_profile_root/properties

Change the com.ibm.ssl.trustStore parameter and the related trust store parameters to match the trust file specified in the SSL configuration. For example,

Stand-alone environments:

To use the default trust store, enter the following: com.ibm.ssl.trustStore=wp_profile_root\\config\\cells\\cell_name\\nodes\\node_name\\trust.p12

Clustered environments:

To use the default trust store, enter the following: com.ibm.ssl.trustStore=wp_profile_root/config/cells/cell_name/trust.p12

Save your changes.

2. Use a text editor to open the wkplc.properties file, located in the wp_profile_root/ConfigEngine/properties directory.
3. Required: Enter a value for the following required parameters in the wkplc.properties file under the VMM Stand-alone LDAP configuration heading:

> **Note:** See the properties file for specific information about the required parameters and for advanced parameters.

```
standalone.ldap.id
standalone.ldap.host
standalone.ldap.port
standalone.ldap.bindDN
standalone.ldap.bindPassword
standalone.ldap.ldapServerType
standalone.ldap.userIdMap
standalone.ldap.groupIdMap
standalone.ldap.groupMemberIdMap
standalone.ldap.userFilter
standalone.ldap.groupFilter
standalone.ldap.serverId
standalone.ldap.serverPassword
standalone.ldap.realm
standalone.ldap.primaryAdminId
standalone.ldap.primaryAdminPassword
standalone.ldap.primaryPortalAdminId
standalone.ldap.primaryPortalAdminPassword
standalone.ldap.primaryPortalAdminGroup
standalone.ldap.baseDN
```

4. Required: Enter a value for the following required entity types parameters in the wkplc.properties file under the LDAP entity types heading:

> **Note:** See the properties file for specific information about the required parameters and for advanced parameters.

```
standalone.ldap.et.group.objectClasses
standalone.ldap.et.group.objectClassesForCreate
standalone.ldap.et.group.searchBases
standalone.ldap.et.personaccount.objectClasses
standalone.ldap.et.personaccount.objectClassesForCreate
standalone.ldap.et.personaccount.searchBases
```

5. Required: Enter a value for the following required group member parameters in the wkplc.properties file under the Group member attributes heading:

> **Note:** See the properties file for specific information about the required parameters and for advanced parameters.

```
standalone.ldap.gm.groupMemberName
standalone.ldap.gm.objectClass
standalone.ldap.gm.scope
standalone.ldap.gm.dummyMember
```

6. Required: Enter a value for the following required relative distinguished name (RDN®) parameters in the wkplc.properties file under the Default parent, RDN attribute heading:

   > **Note:** See the properties file for specific information about the required parameters and for advanced parameters.

   ```
   standalone.ldap.personAccountParent
   standalone.ldap.groupParent
   standalone.ldap.personAccountRdnProperties
   standalone.ldap.groupRdnProperties
   ```

7. Enter a value for the following parameters to enable Secure Socket Layers (SSL):

   > **Note:** See the properties file for specific information about the required parameters and for advanced parameters.

   Required parameters:

   ```
   standalone.ldap.sslEnabled
   standalone.ldap.sslConfiguration
   ```

   Optional parameters:

   ```
   standalone.ldap.certificateMapMode
   standalone.ldap.certificateFilter
   ```

8. Save your changes to the wkplc.properties file.
9. Run the ConfigEngine.sh validate-standalone-ldap -DWasPassword=password task to validate your LDAP server settings.

   > **Note:** If you have not deleted the default file repository, WasPassword is the value entered during installation and not a value found in your LDAP user registry.

   > **Note:** During the validation task, you may receive the following prompt: Add signer to the trust store now?. Press y and then Enter.

10. Run the ConfigEngine.sh wp-modify-ldap-security -DWasPassword=password task, from thewp_profile_root/ConfigEngine directory, to set the standalone LDAP user registry.
11. Stop and restart the appropriate servers to propagate the changes. For specific instructions, see the following link under Related tasks:

    Starting and stopping servers, deployment managers, and node agents.
12. Run the ConfigEngine.sh wp-validate-standalone-ldap-attribute-config -DWasPassword=password task, from thewp_profile_root/ConfigEngine directory, to check that all defined attributes are available in the configured LDAP user registry.

    > **Note:** When you finish configuring your LDAP user registry, see "Adapting the attribute configuration" for information about adding and mapping attributes to ensure proper communication between WebSphere Portal and the LDAP server.

After installing IBM® WebSphere® Portal and configuring your LDAP user registries, you can query the defined attributes to see what attributes are flagged as unsupported or if the attribute is mapped to a different LDAP attribute.

Run the ConfigEngine.sh wp-query-attribute-config -DWasPassword=password task, from thewp_profile_root/ConfigEngine directory, any time during the configuration process or at runtime to query an overview of the currently defined attributes. This task creates the availableAttributes.html report, located in the wp_profile_root/ConfigEngine/

logdirectory. The report contains one table that lists the available attributes for Users (PersonAccount) and one table that lists the available attributes for Groups. For each configured repository there is a column that indicates if the attribute is flagged as unsupported or if the attribute is mapped to a different LDAP attribute.

Note: This task does not validate the existence of attributes in the LDAP schema.

The VMM is configured with a default attribute schema that might not be compatible with your LDAP server. If this is the case, extend the VMM attribute schema by adding new attributes that you can map between IBM® WebSphere® Portal and your user registry.

Perform the following steps to add new attributes to your user registry:

1. Install the required Enterprise Archive (.ear) file on WebSphere Application Server.
    a. Open a command prompt.
    b. Navigate to the wp_profile_root/ConfigEngine directory.
    c. Run the ConfigEngine.sh wp-la-install-ear -DWasPassword=password task.
2. Stop and restart the appropriate servers to propagate the changes. For specific instructions, see the following link under Related tasks: Starting and stopping servers, deployment managers, and node agents.
3. Use a text editor to open the wkplc.properties file, located in the wp_profile_root/ConfigEngine/properties directory.
4. Enter a value for the following required parameters in the wkplc.properties file under the VMM Property Extension Properties heading:

    Note: See the properties file for specific information about the required parameters and for advanced parameters.

    ```
    la.providerURL
    la.propertyName
    la.entityTypes
    la.dataType
    la.multiValued
    ```
5. Save your changes to the wkplc.properties file.
6. Run the ConfigEngine.sh wp-add-property -DWasPassword=password task to add the attribute to the user registry.

    Note:

    This task performs an EJB call to WebSphere Application Server, which must authenticate against WebSphere Application Server. Depending on the configuration in the sas.client.props file, you may receive a popup window or a command line prompt asking for user identity and password. Enter the WebSphere Application Server user ID and password.

    Remember, if you have multiple properties to add, repeat all steps, except for the wp-la-install-ear task, until all new attributes are added.
7. Stop and restart the appropriate servers to propagate the changes.

After you install and configure your LDAP user registry and after you query the defined attributes, you can map the attributes so they match the configured LDAP servers and your business needs.

Perform the following steps to map attributes between WebSphere Portal and your LDAP server; if you have multiple LDAP servers, you will need to perform these steps for each LDAP server:

1. Use a text editor to open the wkplc.properties file, located in the wp_profile_root/ConfigEngine/properties directory.
2. Enter a value for one of the following sets of parameters in the wkplc.properties file to identify your LDAP server:

   Note: Make sure you use the same values you used to configure your LDAP server.

   The following table contains information on how to identify your LDAP server in the wkplc.properties file:

Repository type	Parameters

Stand-alone	The following parameters are found under the LDAP attribute configuration heading:
	
	Note: See the properties file for specific information about the required parameters and for advanced parameters.
	
	`standalone.ldap.id`
	`standalone.ldap.host`
	`standalone.ldap.port`
	`standalone.ldap.sslEnabled`
	`standalone.ldap.bindDN`
	`standalone.ldap.bindPassword`
	`standalone.ldap.baseDN`

3. Run one of the following tasks to check that all defined attributes are available in the configured LDAP user registry.

   The following table describes the task to check that all defined attributes are available in the configured LDAP user registry.

Repository type	Task
Stand-alone	ConfigEngine.sh wp-validate-standalone-ldap-attribute-config -DWasPassword=password task, from the wp_profile_root/ConfigEngine directory.

4. Open the ConfigTrace.log file, located in the wp_profile_root\\ConfigEngine\\log directory, to review the following output for the PersonAccount and Group entity type:

   The following attributes are defined in WebSphere Portal but not in the LDAP server:

   This list contains all attributes that are defined in WebSphere Portal but not available in the LDAP. Flag attributes that you do not plan to use in WebSphere Portal as unsupported. Map the attributes that you plan to

use to the attributes that exist in the LDAP; you must also map the uid, cn, firstName, sn, preferredLanguage, and ibm-primaryEmail attributes if they are contained in the list.

The following attributes are flagged as required in the LDAP server but not in WebSphere Portal:

This list contains all attributes that are defined as “MUST" in the LDAP server but not as required in WebSphere Portal. You should flag these attributes as required within WebSphere Portal; see the step below about flagging an attribute as either unsupported or required.

The following attributes have a different type in WebSphere Portal and in the LDAP server:

This list contains all attributes that WebSphere Portal might ignore because the data type within WebSphere Portal and within the LDAP server do not match.

5. Use a text editor to open the wkplc.properties file, located in the wp_profile_root/ConfigEngine/properties directory.
6. Enter a value for one of the following sets of parameters in the wkplc.properties file to correct any issues found in the config trace file.

The following table describe the parameters that you can define in the wkplc.properties file to correct any issues found in the config trace file.

Repository type	Parameters

Stand-alone	The following parameters are found under the LDAP attribute configuration heading:
	
	Note: See the properties file for specific information about the required parameters and for advanced parameters.
	
	`standalone.ldap.id`
	`standalone.ldap.attributes.nonSupported`
	`standalone.ldap.attributes.nonSupported.delete`
	`standalone.ldap.attributes.mapping.ldapName`
	`standalone.ldap.attributes.mapping.portalName`
	`standalone.ldap.attributes.mapping.entityTypes`
	
	For example, the following values will flag certificate and members as unsupported attributes and will map ibm-primaryEmail to mail and ibm-jobTitle to title for both the PersonAccount andGroup **entityTypes**:
	
	`standalone.ldap.attributes.nonSupported=certificate, members`
	`standalone.ldap.attributes.nonSupported.delete=`
	
	`standalone.ldap.attributes.mapping.ldapName=mail, title`
	`standalone.ldap.attributes.mapping.portalName=ibm-primaryEmail, ibm-jobTitle`
	`standalone.ldap.attributes.mapping.entityTypes=PersonAccount, Group`
	
	standalone.ldap.attributes.nonSupported=certificate, members
	
	standalone.ldap.attributes.nonSupported.delete=
	
	standalone.ldap.attributes.mapping.ldapName=mail, title

Repository type	Parameters
	standalone.ldap.attributes.mapping.portalName=ibm-primaryEmail, ibm-jobTitle standalone.ldap.attributes.mapping.entityTypes=PersonAccount, Group

7. Save your changes to the wkplc.properties file.
8. Run one of the following tasks to update the LDAP user registry configuration with the list of unsupported attributes and the proper mapping between WebSphere Portal and the LDAP user registry.

   This table describes the task to update the LDAP user registry configuration with the list of unsupported attributes and the proper mapping between Portal and the LDAP user registry.

Repository type	Task
Stand-alone	ConfigEngine.sh wp-update-standalone-ldap-attribute-config -DWasPassword=password task, from the wp_profile_root/ConfigEngine directory

9. Stop and restart the appropriate servers to propagate the changes. For specific instructions, see the following link under Related tasks: Starting and stopping servers, deployment managers, and node agents.
10. Optional: Perform the following steps to flag an attribute as either unsupported or required for the entire WebSphere Portal environment instead of just for the specified LDAP:
    a. Enter a value for the following required parameters in the wkplc.properties file:

       Note: See the properties file for specific information about the required parameters and for advanced parameters.

       - user.attributes.required
       - user.attributes.nonsupported

    b. Save your changes to the wkplc.properties file.
    c. Run the ConfigEngine.sh wp-update-attribute-config -DWasPassword=password task, from thewp_profile_root/ConfigEngine directory.
    d. Stop and restart all necessary servers to propagate your changes.

Due to a Virtual Member Manager (VMM) limitation, there is currently no task to update an attribute. Therefore, if you added an attribute to your property extension database or when adapting attributes to match your LDAP server that were spelled incorrectly or already added due to migration, you must remove the attribute from the database. Use caution when performing these steps.

Perform the following steps to remove an attribute from your database:

Note: Do not remove attributes that have already been populated with user values because this can cause database inconsistencies. **Cluster note**: In a clustered environment, perform the following steps on the deployment manager and then resynch the nodes.

1. Open the tool you use to edit your database.
2. Verify that your attribute name is available in the LAPROP table.
3. Delete the required attributes from the LAPROP table.

4. Open the wimxmlextension.xml file, located in the wp_profile_root/config/cells/cellname/wim/model directory.
5. Locate and delete the propertySchema definition for the attributes that you deleted from the LAPROP table; for example:

```
<wim:propertySchema nsURI="http://www.ibm.com/websphere/wim" dataType="String"
    multiValued="true" propertyName="attribute_name">
  <wim:applicableEntityTypeNames>PersonAccount</wim:applicableEntityTypeNames>
</wim:propertySchema>
```

6. Save your changes to the wimxmlextension.xml file.
7. Open the wimconfig.xml file, located in the wp_profile_root/config/cells/cellname/wim/config directory.
8. Locate and delete the propertiesNotSupported definitions for the attributes that you deleted from the LAPROP table; for example:

   <config:propertiesNotSupported name="attribute_name">
9. Save your changes to the wimconfig.xml file.
10. Stop and restart the server1 and WebSphere_Portal servers from the wp_profile_root/bin directory.

By default, WebSphere Portal is enabled for static groups. However, the Virtual Member Manager (VMM) allows users to be members of either static or dynamic groups. Static groups are those where a persistent binding exists between a group and its members. Dynamic groups are those where a search query is defined to retrieve the members of a group. If you have your LDAP server configured to use dynamic groups, complete the steps in this task for WebSphere Portal to use dynamic group queries when you setup your LDAP server.

Perform the required tasks to configure either a stand-alone or federated LDAP server security.

The steps in this task use groupOfURLs as the object class for dynamic groups and memberURL as the dynamic membership attribute. The actual values for object classes and dynamic membership attributes can vary depending on your LDAP server. For this reason, you should export an LDIF file to verify the object classes and dynamic membership attributes. Either refer to your LDAP documentation or ask your LDAP administrator for instructions on exporting an LDIF file.

Clustered environments: Perform the following steps on the Deployment Manager then synchronize the nodes.

To configure WebSphere Portal to use dynamic groups, do the following:

1. Choose the appropriate set of steps, depending on your LDAP server environment:

   This table describes the steps for enabling dynamic groups:

LDAP server environment	Steps to perform
Stand-alone LDAP server or federated LDAP server(s)	a. Navigate to the following directory: wp_profile_root/cells/cell_name/wim/config. b. Locate and open wimconfig.xml with any text editor. c. Add the following line to the <config:groupConfiguration>tag: **<config:dynamicMemberAttributes name="memberurl" objectClass="groupofurls"/>**

2. Stop and restart the appropriate servers to propagate the changes.

Referrals redirect object requests from one LDAP server to another when objects do not exist or cannot be located in a particular directory tree. You should enable referrals if your environment has more than one user registry existing on multiple servers or domains.

To configure your portal to use LDAP referrals, do the following:

1. Use any text editor to open the wkplc.properties file in the following directory: wp_profile_root/ConfigEngine/properties.
2. Specify values for the following parameters:
    - et.ldap.id=ID_of_your_LDAP_server
    - et.ldap.host=hostname_of_your_LDAP_server
    - et.ldap.referral=follow
3. Save and close wkplc.properties.
4. Run the following task from the wp_profile_root/ConfigEngine directory to create an LDAP entity type:

    UNIX: ./ConfigEngine.sh wp-update-et-ldap -DWasPassword=password Windows: ConfigEngine.bat wp-update-et-ldap -DWasPassword=password i: ConfigEngine.sh wp-update-et-ldap -DWasPassword=password
5. Stop and restart the appropriate servers to propagate the changes.

Configuring an External HTTP Server for WebSphere Portal v8.5 (IBM i HTTP Server only)

By default, the installation configures the WebSphere Portal v8.5 to use the internal HTTP transport within the WebSphere Application Server to handle requests (i.e port 10039). Portal also supports the use of an external Web server which is the recommended configuration for production Portals. For Portal Server v8.5 on *IBM i* only the native *IBM i* HTTP Server is supported.

This section explains how you can configure an external web server port to communicate with the WebSphere Portal, which includes these tasks:

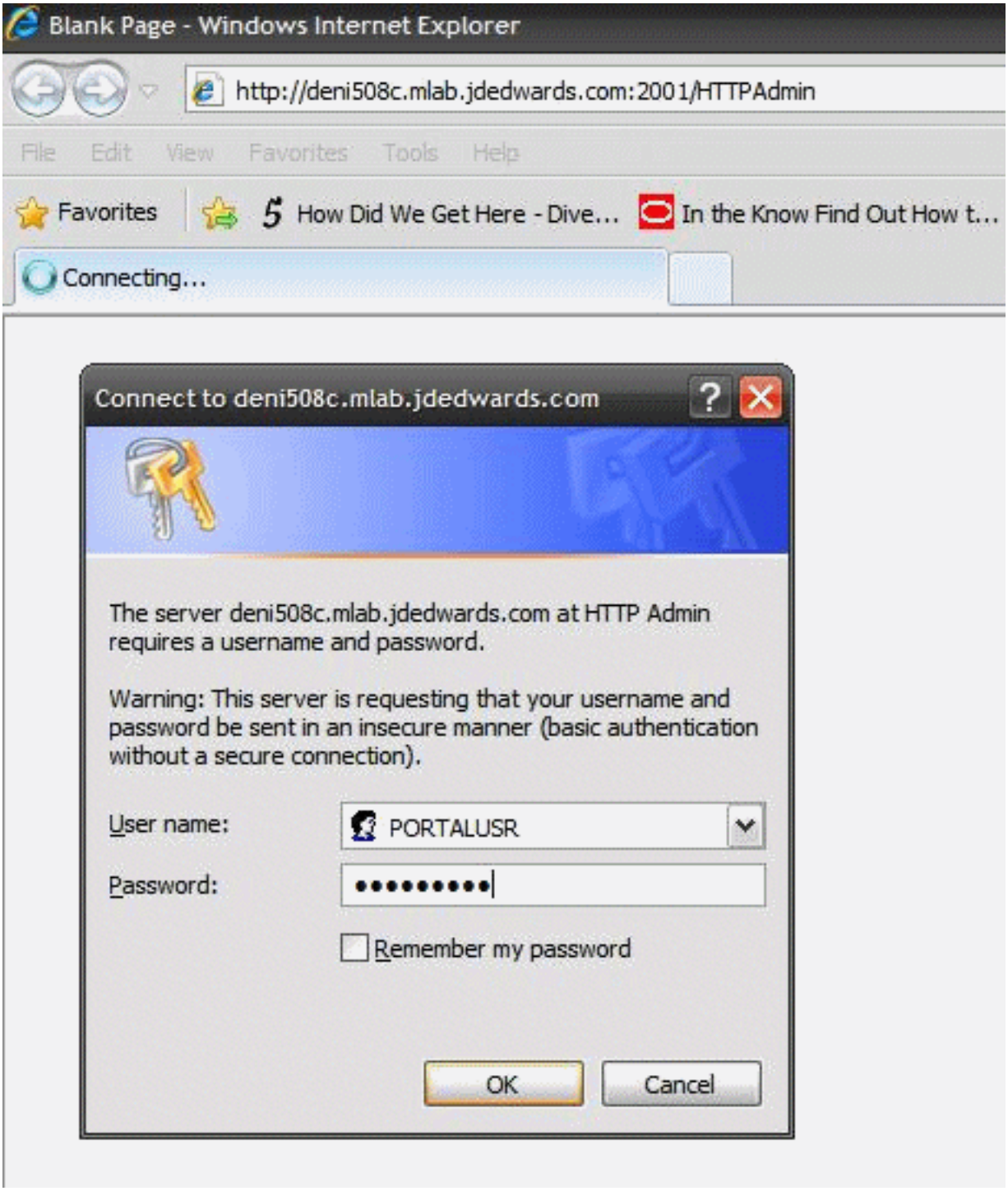
- Creating a webserver definition for the wp_profile
- Remapping the WebSphere portal to the external web server
- Adding the external port
- Generating the webserver plugin for the wp_profile
- Propagating webserver plugin

Creating a Webserver Definition

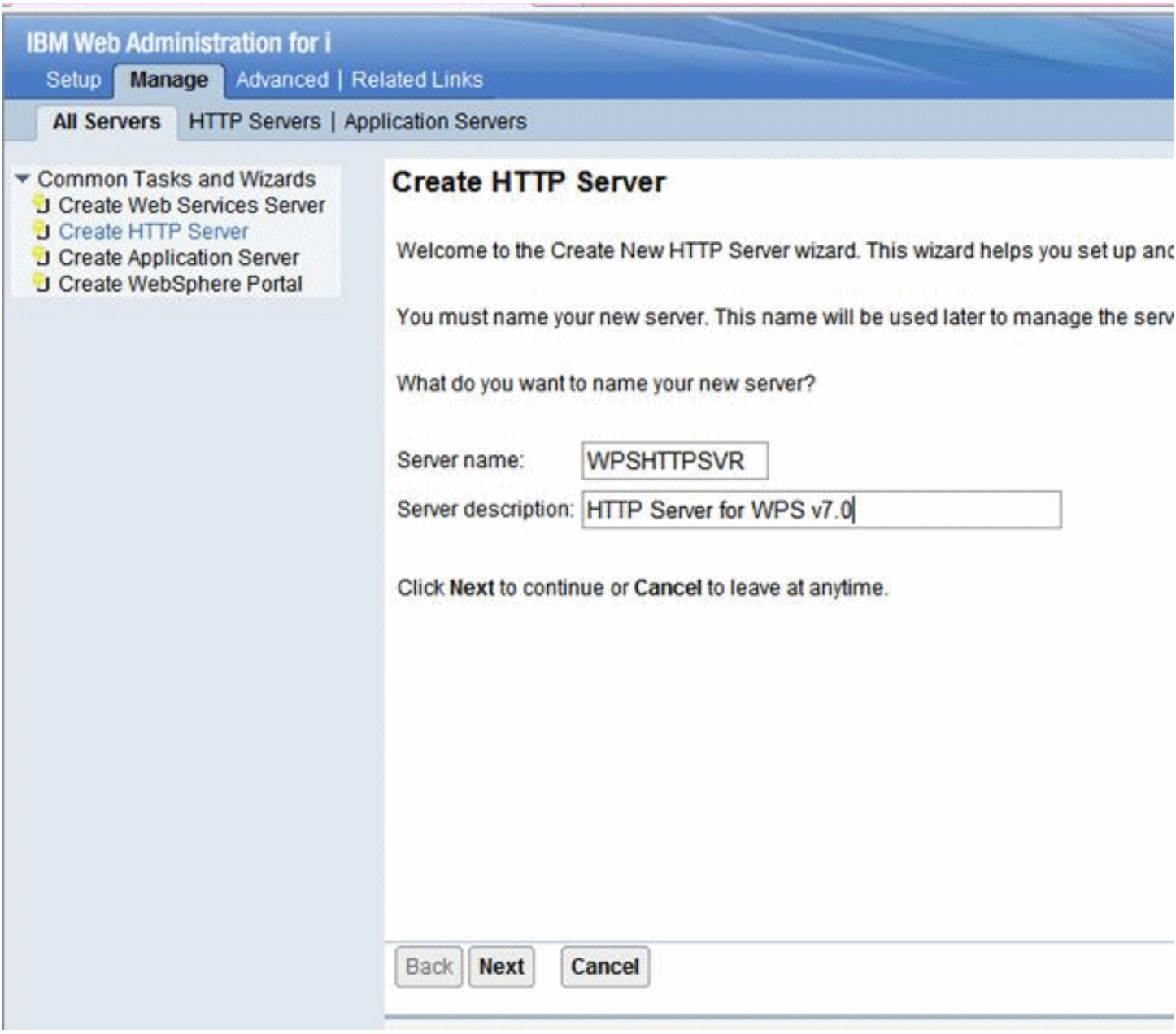
When WebSphere Application Server was initially installed, a webserver definition was created for the WebSphere Application Server profile, known as the default profile. The installation of the WebSphere Portal Server creates a new profile, wp_profile. This profile is a non-default profile. Non-default profiles do not have web server definitions or plugin files created for them at the time of install. To use an external http server with portal, a second webserver definition and its corresponding plugin-cfg.xml file must be created manually for the wp_profile. This can be created from the Admin Console (i.e server1 console) of the wp_profile.

To create the new definition:

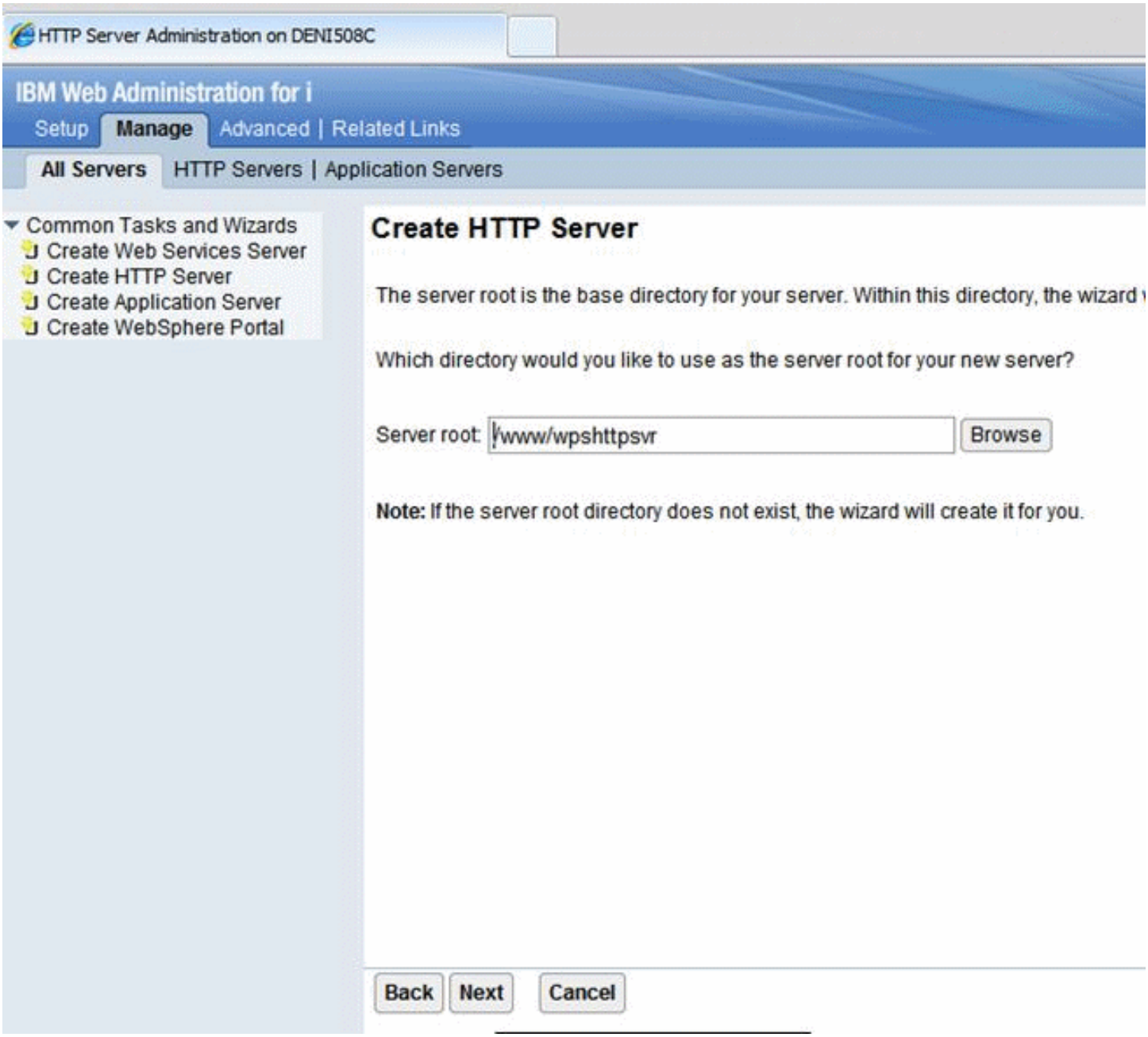
1. Log in to the *IBM i* HTTP Series admin console as the PORTALUSR userprofile



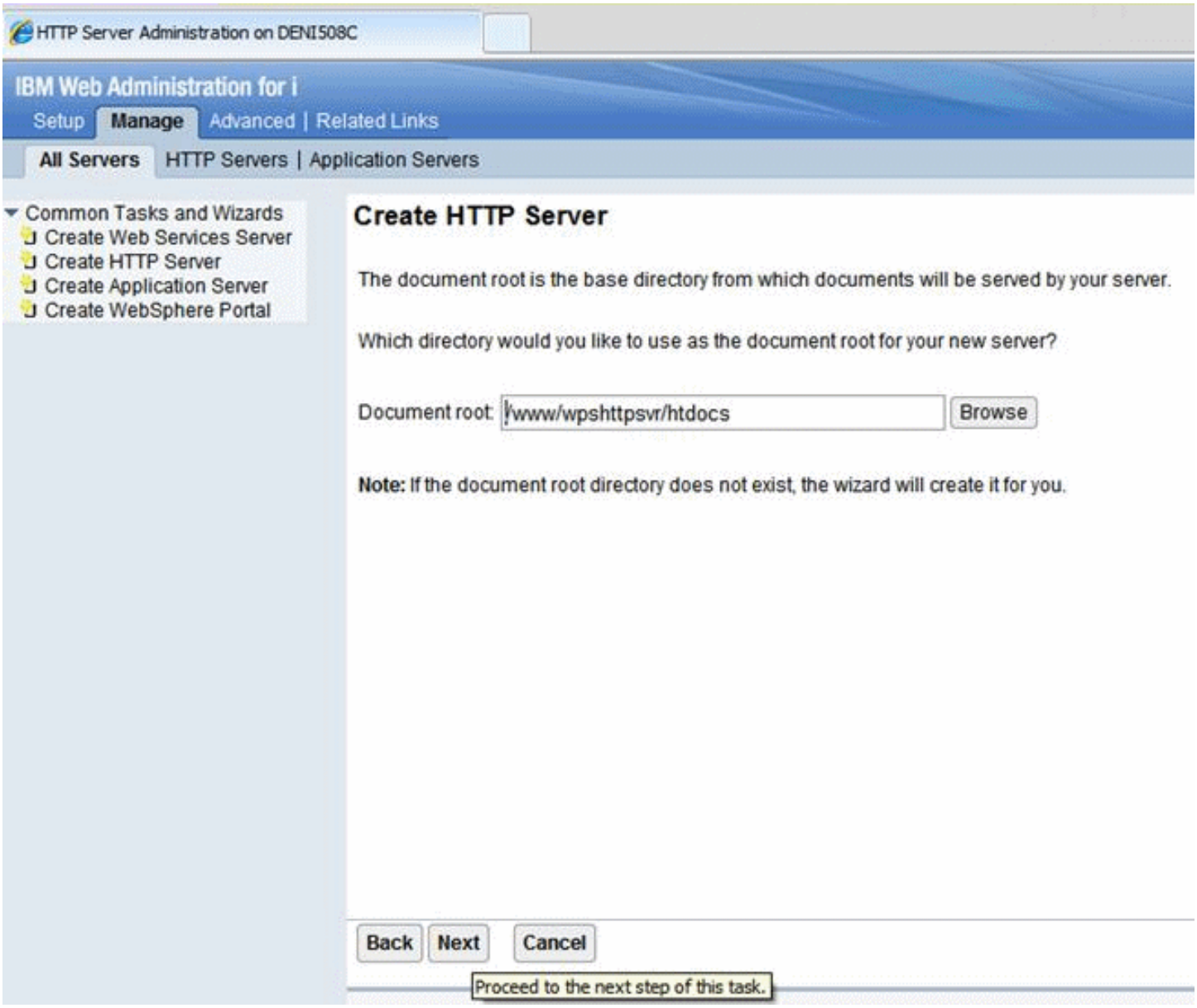
2. Go to All Servers, click Create HTTP Server. Enter details and click Next.



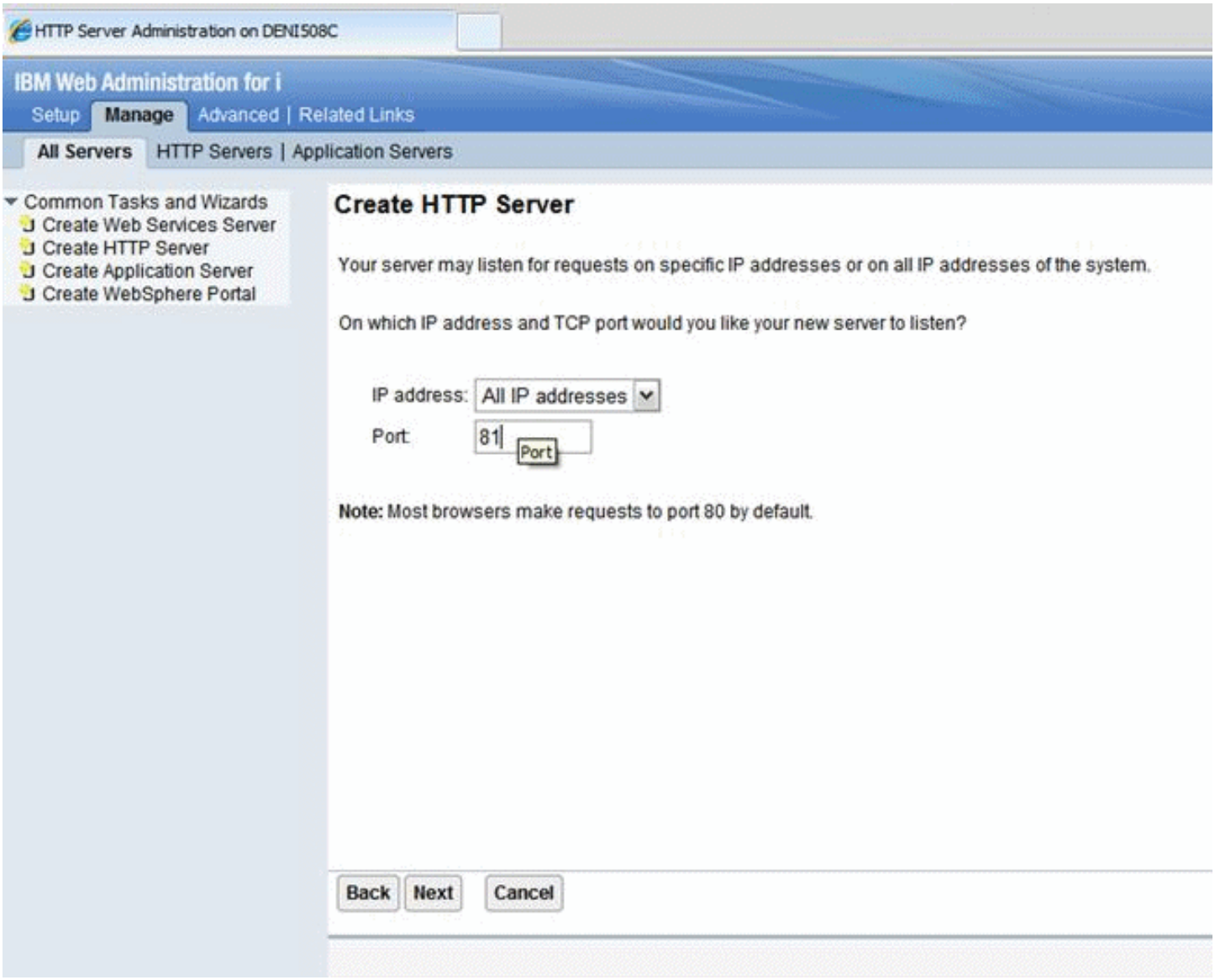
3. Note the webserver root directory and click Next.



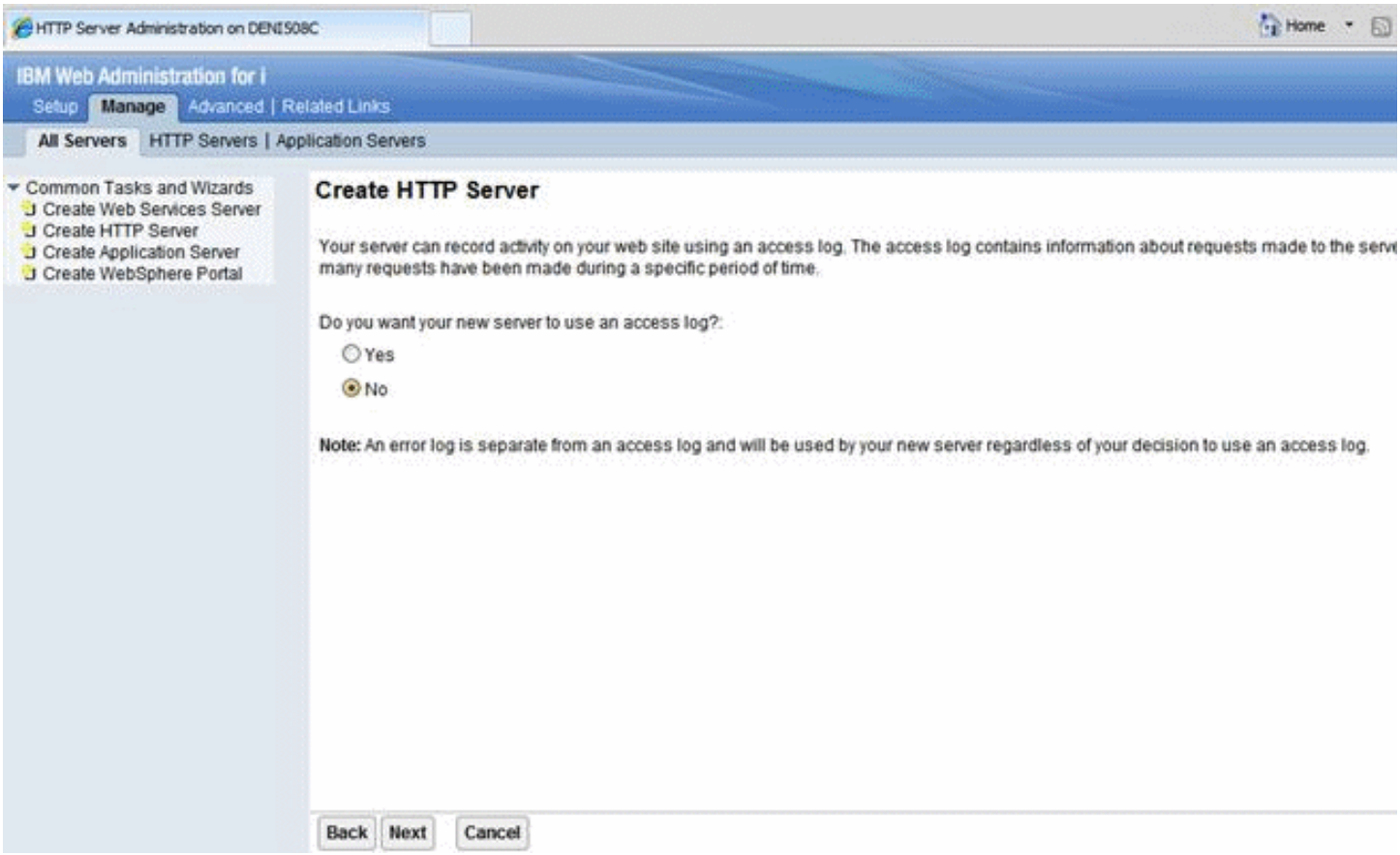
4. Note the webserver document root and click Next.



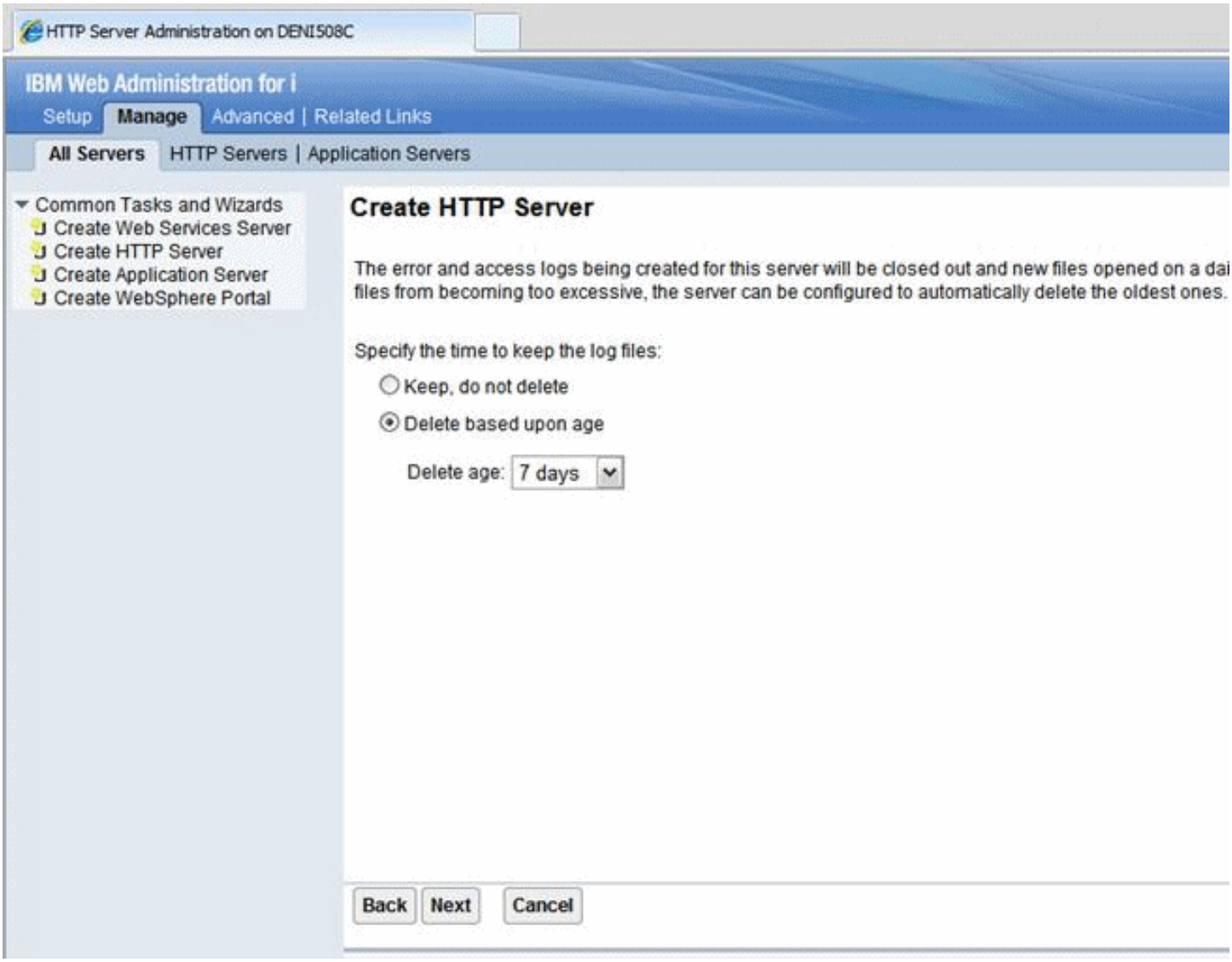
5. Note the IP Address mapping (* in the case), enter the port number, and click Next.



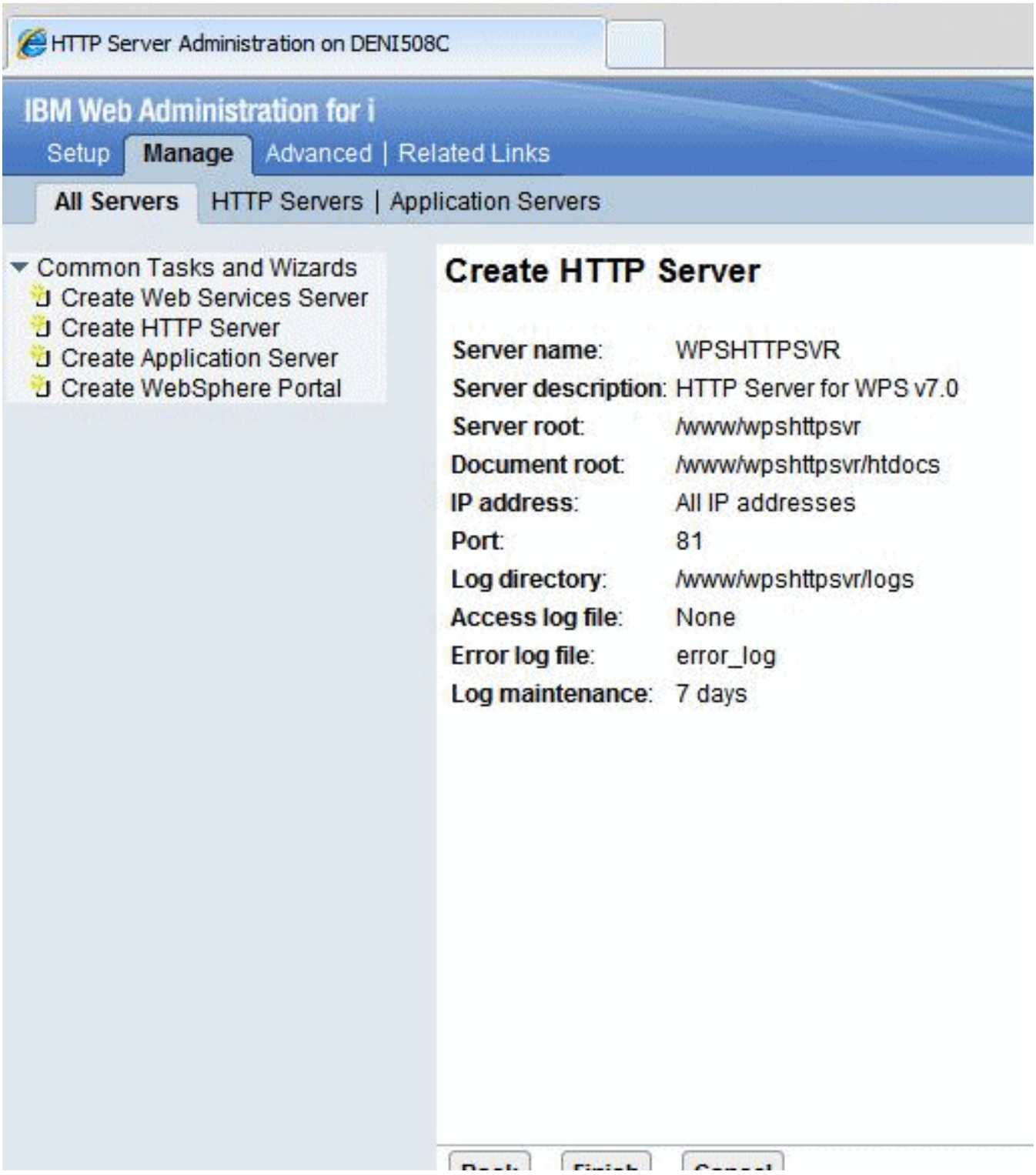
6. Disable access logging and click Next.



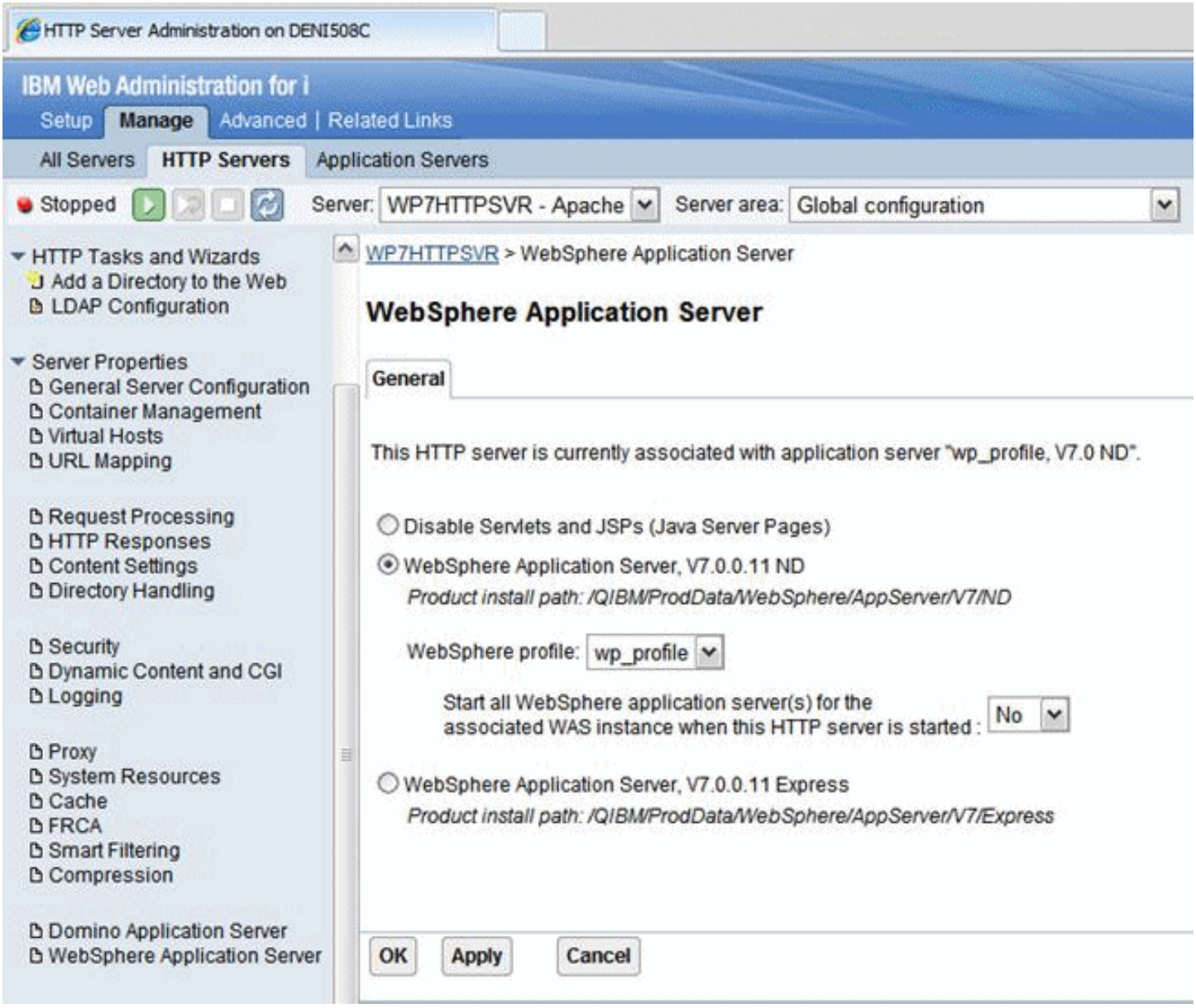
7. Select the log deletion criteria and click Next.



8. Review the entered information and click Finish to complete the HTTP Server definition.



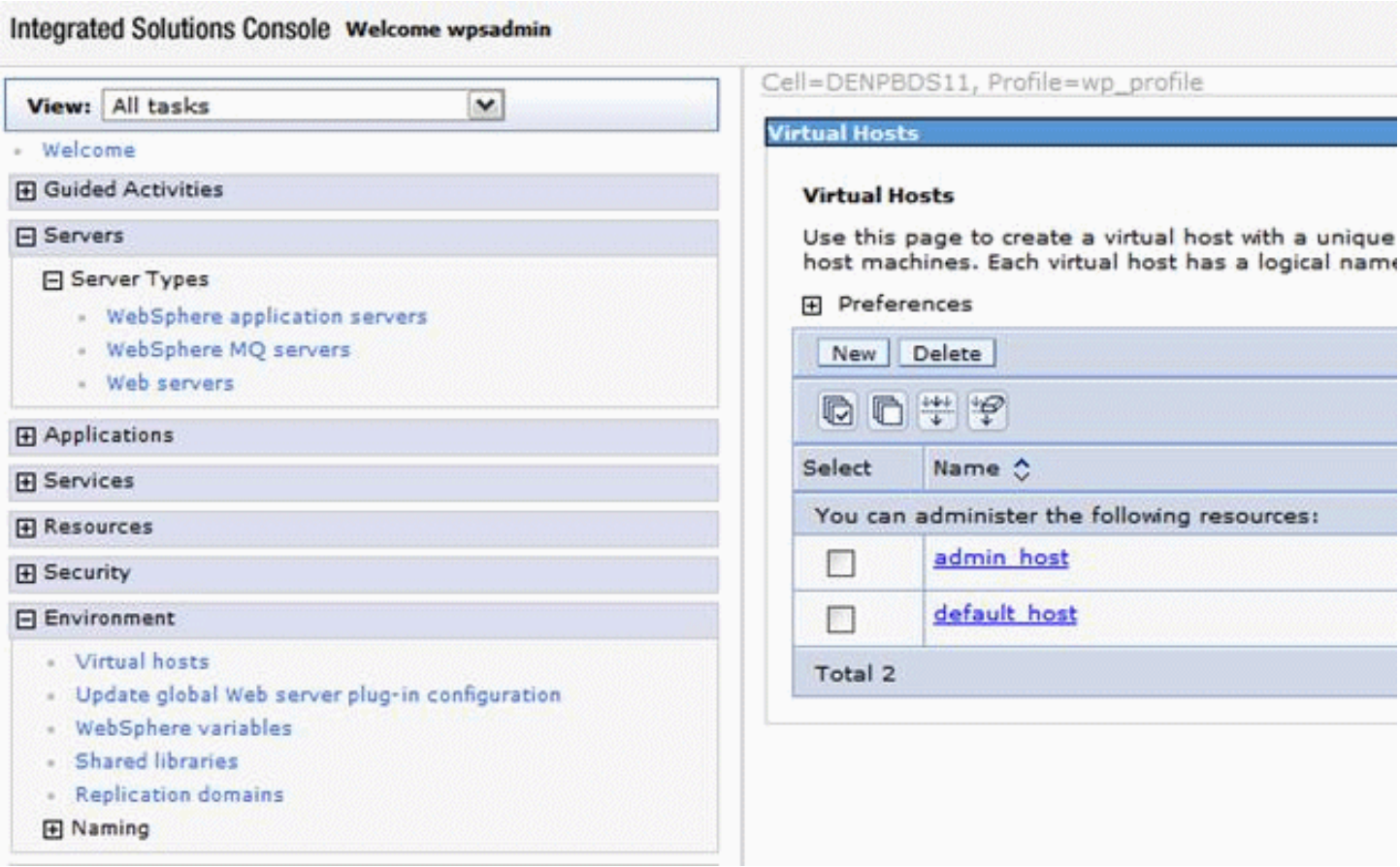
9. In the HTTP Server screen, select the wp_profile to which the webserver is to be mapped click OK to complete association of the HTTP Server definition with the wp_profile (Portal Server profile).



Adding a Virtual Host Definition

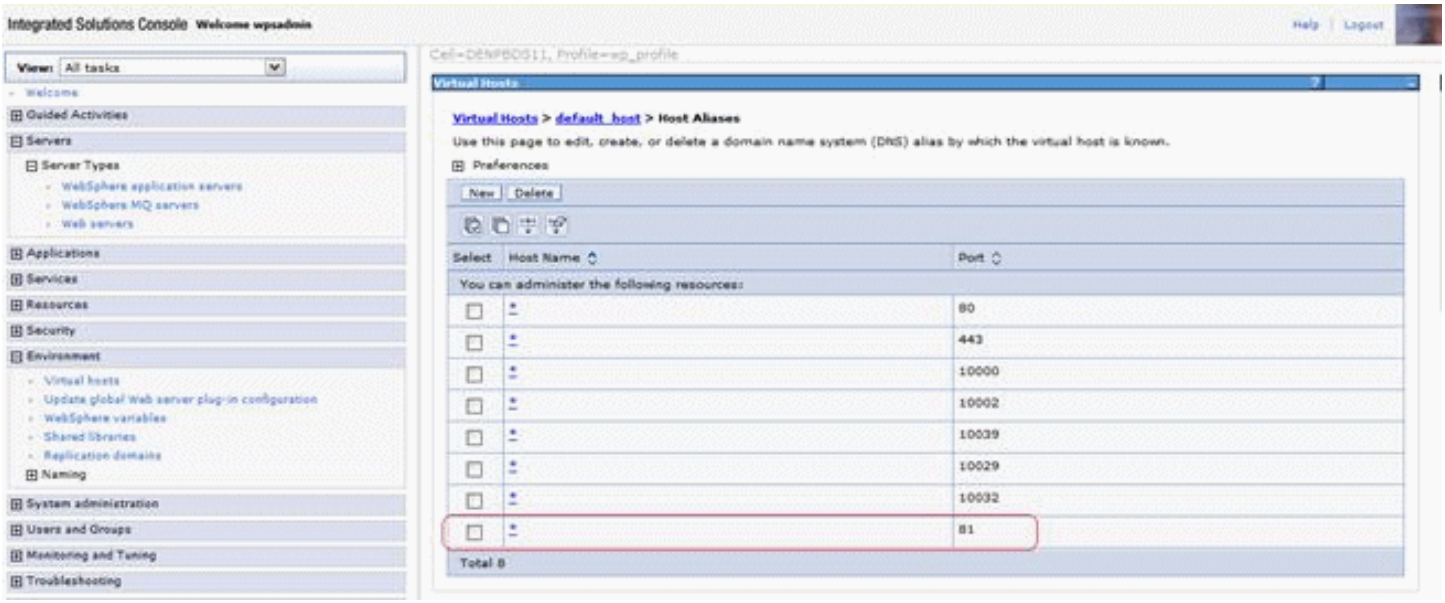
If you want to access WebSphere Portal using a host name and port different from your Web server default (i.e port 80), add the required virtual host definition using the WebSphere Application Server administrative console.

1. Select Environment > Virtual Hosts.



2. Select the default_host entry or the entry for the virtual host that is being used to access the WebSphere Portal application.

3. Select Host Aliases, and verify whether there is a host name and port entry corresponding to the values used to access WebSphere Portal (for example, *:10039). Select New, and enter the information for the host name and port you want to use. (In the example below port 81 was added.)

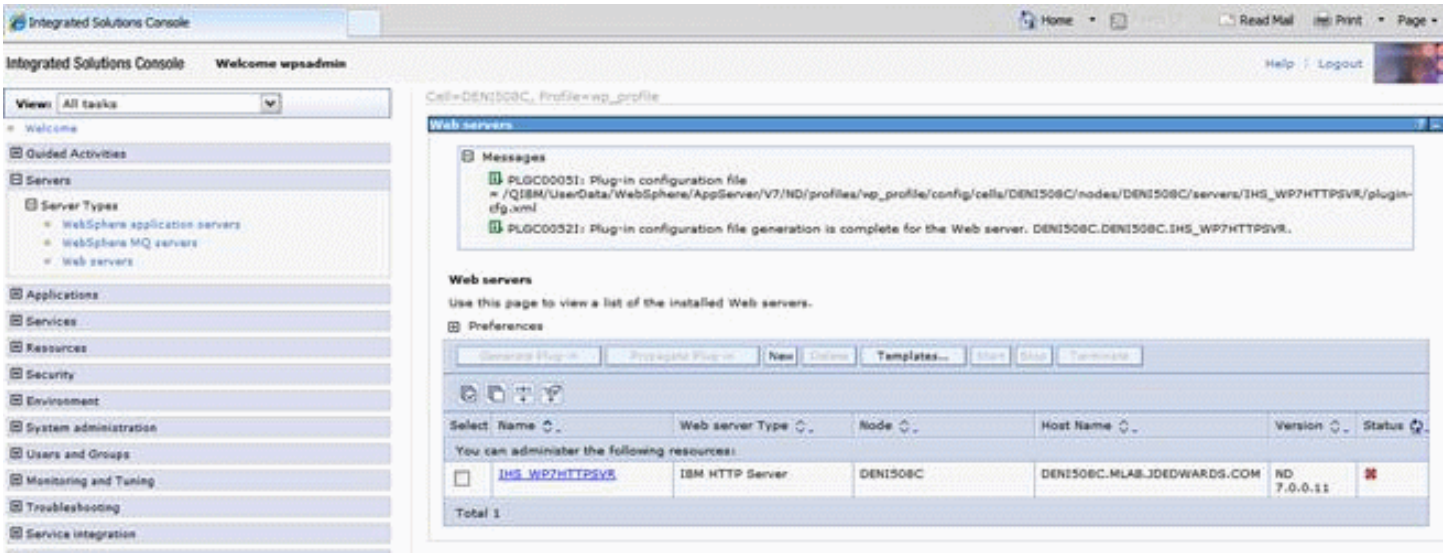


4. Save your changes.

Generate the Web Server Plug-in for wp_profile

To use an external http port to access the portal, you must generate the plugin file with the new changes. Log in to the admin server console (server1 admin console).

From the portal administration console select Servers -> Web servers. Select webserver81, which was created in the preceding task, and click the generate plugin button.



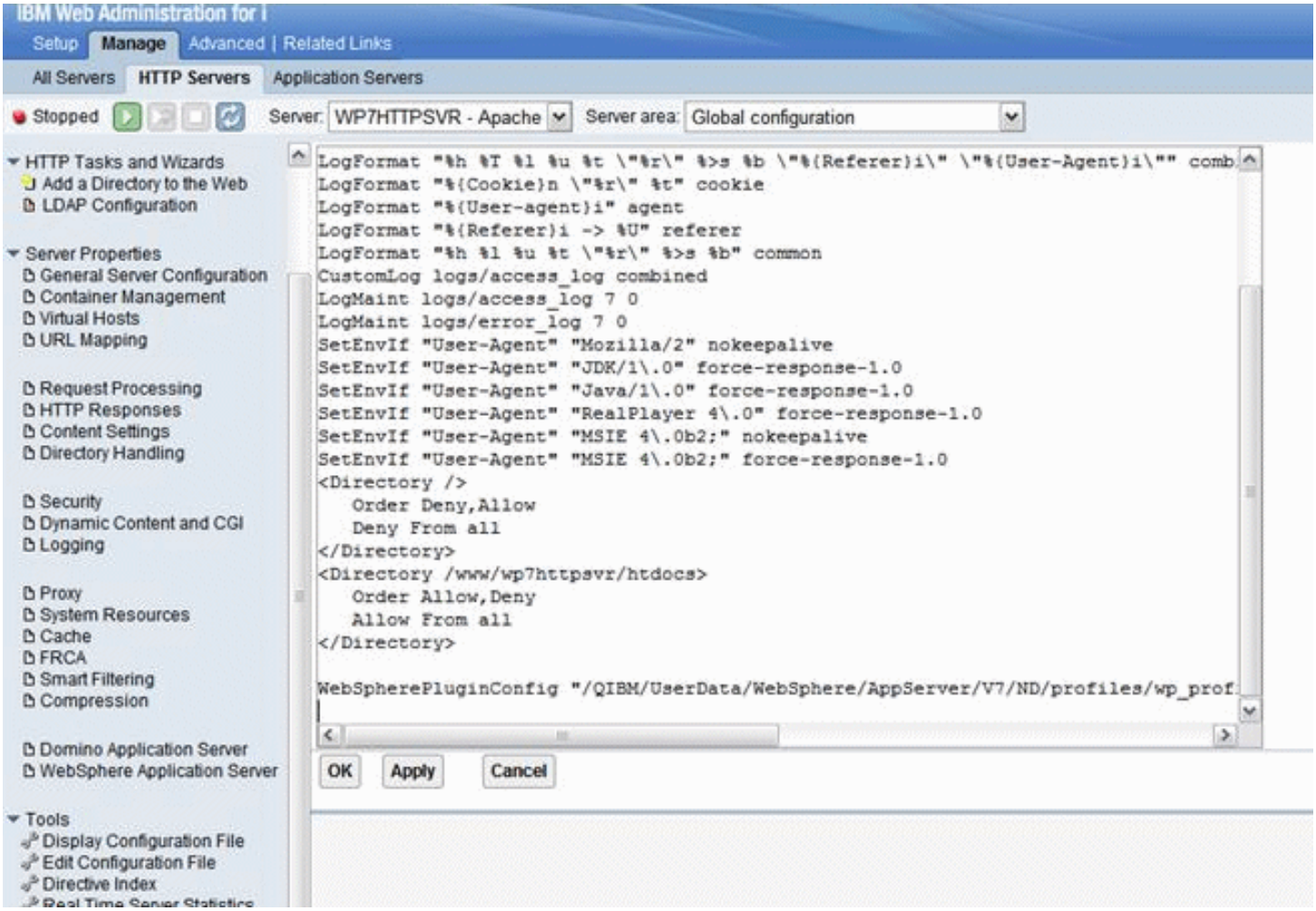
Note the location of the plugin-cfg.xml file in the above screen.

Log in to the *IBM i* HTTP Admin console. Go to Tools -> Edit Configuration file.

1. 1. This opens the httpd.conf file for editing.
2. 2. Add a line for a Listen directive for the external port selected above. For example: Listen 81

3. 3. Locate the entry in the httpd.conf file with the path to the plugin-cfg.xml file. Verify that the path points to the location of the file generated above. If not, change the path to match the file location.

   WebSpherePluginConfig "/QIBM/UserData/WebSphere/AppServer/V7/ND/profiles/wp_profile/config/cells/DENI508C/nodes/DENI508C/servers/IHS_WP7HTTPSVR/plu"



4. Restart both the Web server (for example webserver81) and the WebSphere_Portal servers.

Installing the JD Edwards Collaborative Portal

Once the Portal Server is running, you must install the Collaborative Portal for WebSphere Portal Server v8.5, which provides the JD Edwards EnterpriseOne Interface and Portlet Deployment Structure.

Refer to the *JD Edwards EnterpriseOne Tools IBM WebSphere Portal Reference Guide* .

6 Appendix A - Start and Stop Portal Servers

Overview

Beginning with Tools release 8.97, management of the application servers can be performed through the JD Edwards EnterpriseOne Server Manager application. This is the recommended method for starting, stopping and configuring application and portal servers. For additional information about Server Manager, refer to the *JD Edwards EnterpriseOne Tools Server Manager Guide* .

The collaborative portal can also be managed through the WebSphere Administration Server and command line commands like previous releases. This remains the only option for JD Edwards EnterpriseOne Xe and ERP8 installations.

Refer to the following Knowledge Document E1: SVM: WebSphere 7.0.0.11 Secure Profile, Server Manager Unable to Detect Status of Servers Correctly (Doc ID 1262748.1) in order for Server Manager to detect the status of the WebSphere_Portal server correctly.

> **CAUTION:** The Portal is installed with its own profile which, by default, is wp_profile. When starting and stopping server1 for portal and the WebSphere_Portal server, it is necessary to be in the wp_profile/bin directory. Portal services cannot be managed using the WAS default profile from the profiles/default/bin directory.

Starting and Stopping the WebSphere Portal Administration Server (server1)

To locate the scripts to start and stop the WebSphere Portal Administration Server (server1), navigate to this directory:

Log in to the Green Screen as PORTALUSR, type STRQSH,

```
/QIBM/UserData/WebSphere/AppServer/V7/ND/profiles/<PROFILE_NAME>/bin
```

Starting server1 (Portal Administration Server)

From the above specified /bin directory, you can start server1 by entering this command:

startServer server1 -user wpsadmin -password wpsadmin

> **Note:** The security user credentials will not be required if you have correctly configured the credentials in the soap.client.props file. This is also a pre-requisite for Server Manager.

Stopping server1 (Portal Administration Server)

From the above specified /bin directory, you can stop server1 by entering this command:

```
stopServer server1 -user wpsadmin -password wpsadmin
```

Note: The security user credentials will not be required if you have correctly configured the credentials in the soap.client.props file. This is also a pre-requisite for Server Manager.

Starting and Stopping the WebSphere Portal Server

To locate the scripts to start and stop the WebSphere Portal Server, navigate to this directory:

Log in to the Green Screen as PORTALUSR, type STRQSH,

```
/QIBM/UserData/WebSphere/AppServer/V7/ND/profiles/<PROFILE_NAME>/bin
```

Starting the WebSphere Portal Server

From the above specified /bin directory, you can start the WebSphere Portal Server by entering this command:

```
startServer WebSphere_Portal
```

Note: The security user credentials will not be required if you have correctly configured the credentials in the soap.client.props file. This is also a pre-requisite for Server Manager.

Stopping WebSphere Portal Server

From the above specified /bin directory, you can stop the WebSphere Portal Server by entering this command:

```
stopServer WebSphere_Portal -user wasadmin -password wasadmin
```

Note: The security user credentials are not required if you correctly configured the credentials in the soap.client.props file. This is also a pre-requisite for Server Manager.

7 Appendix B - Example of a PortalUsers.ldif File

Example of a PortalUsers.ldif File

This appendix provides an example of a PortalUsers.ldif file. You should edit this file using your company information.

Note: You can find the PortalUsers.ldif template file from the Portal Setup CD.

```
version: 1
# NOTE: you must edit this file before importing it and replace all
# occurrences of the default suffix "dc=yourco,dc=com" with the suffix
# that your LDAP server is configured for.
dn: dc=denver,dc=oracle,dc=com
objectclass: domain
objectclass: top
# Add lines according to this scheme that correspond to your suffix
dc: dc=denver,dc=oracle,dc=com

dn: cn=users,dc=denver,dc=oracle,dc=com
objectclass: container
objectclass: top
cn: users

dn: cn=groups,dc=denver,dc=oracle,dc=com
objectclass: top
objectclass: container
cn: groups

dn: uid=wpsadmin,cn=users,dc=denver,dc=oracle,dc=com
objectclass: organizationalPerson
objectclass: person
objectclass: top
objectclass: inetOrgPerson
uid: wpsadmin
userpassword: wpsadmin
sn: admin
givenName: wps
cn: wps admin

dn: uid=wasadmin,cn=users,dc=denver,dc=oracle,dc=com
objectclass: organizationalPerson
objectclass: person
objectclass: top
objectclass: inetOrgPerson
uid: wasadmin
userpassword: wasadmin
sn: admin
givenName: was
cn: was admin
```

```
dn: uid=wpsbind,cn=users,dc=denver,dc=oracle,dc=com
objectclass: top
objectclass: person
objectclass: organizationalPerson
objectclass: inetOrgPerson
uid: wpsbind
userpassword: wpsbind
sn: bind
givenName: wps
cn: wps bind

dn: cn=wpsadmins,cn=groups,dc=denver,dc=oracle,dc=com
objectclass: groupOfUniqueNames
objectclass: top
uniquemember: uid=wpsadmin,cn=users,dc=denver,dc=oracle,dc=com
cn: wpsadmins


dn: cn=wpsContentAdministrators,cn=groups,dc=denver,dc=oracle,dc=com
objectclass: groupOfUniqueNames
objectclass: top
uniquemember: uid=wpsadmin,cn=users,dc=denver,dc=oracle,dc=com
cn: wpsContentAdministrators

dn: cn=wpsDocReviewer,cn=groups,dc=denver,dc=oracle,dc=com
objectclass: groupOfUniqueNames
objectclass: top
uniquemember: uid=wpsadmin,cn=users,dc=denver,dc=oracle,dc=com
cn: wpsDocReviewer

dn: cn=wcmadmins,cn=groups,dc=denver,dc=oracle,dc=com
objectclass: groupOfUniqueNames
objectclass: top
uniquemember: uid=wpsadmin,cn=users,dc=denver,dc=oracle,dc=com
cn: wcmadmins
```

8 Glossary

DBCA

An abbreviation for Database Configuration Assistant.

JAR file

JAR files are a Java Archive and are built based on the ZIP file format and use the .jar file extension. This format is typically used to combine Java class files and associated metadata and resources into one file that can distribute application software or libraries for the Java platform.

JDBC

An abbreviation for Java Database Connectivity. The JDBC Connector is a program that allows different databases to be accessed by Java application servers that are run on the J2EE platform.

LDAP directory

LDAP is an abbreviation for Lightweight Directory Access Protocol. This directory is a data store for user data, such as the user ID, password, and user name.

MTR

An abbreviation for Minimum Technical Requirements.

WAR file

A WAR file is a Web application ARchive is a JAR file used to for the distribution of JavaServer Pages, Java Servlets, Java classes, XML files, tag libraries and static Web pages that comprise a Web application.

WAS

An abbreviation for WebSphere Application Server.