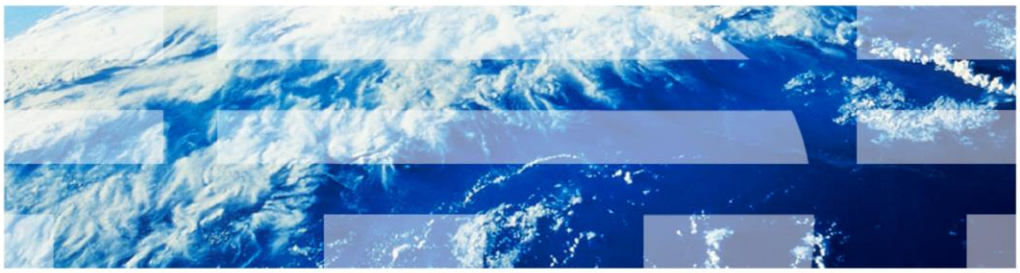
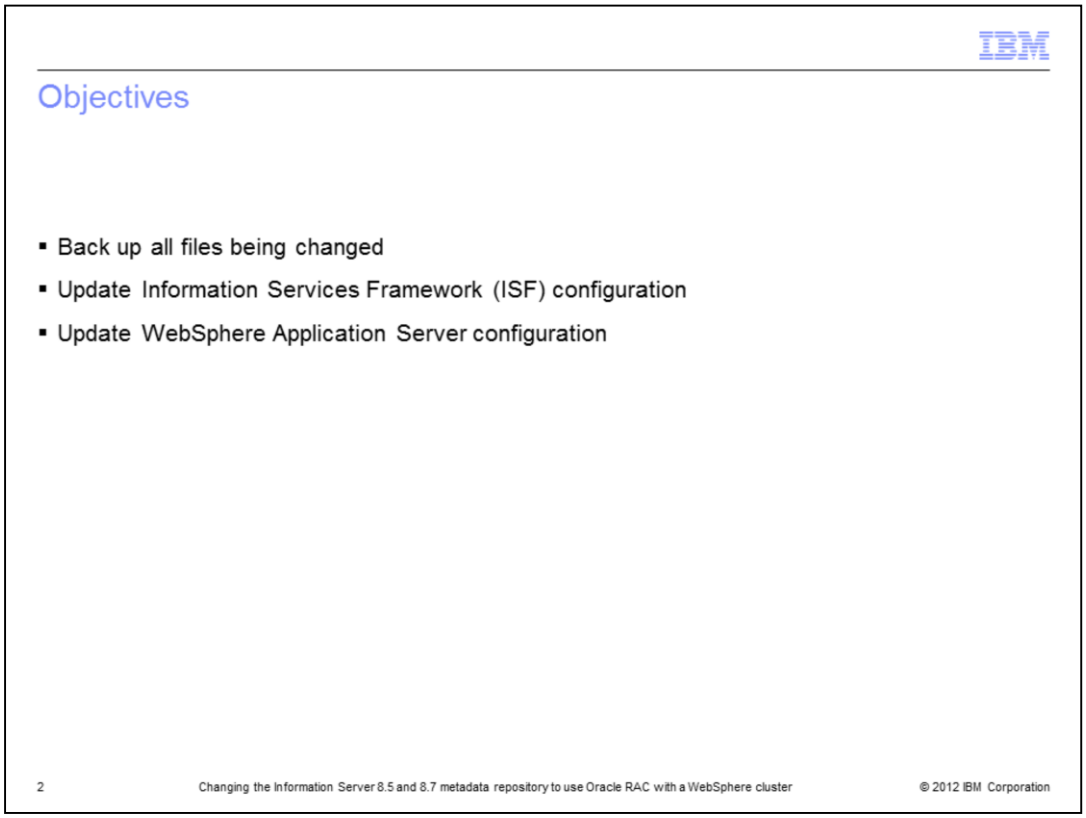
IBM

Information Server DataStage

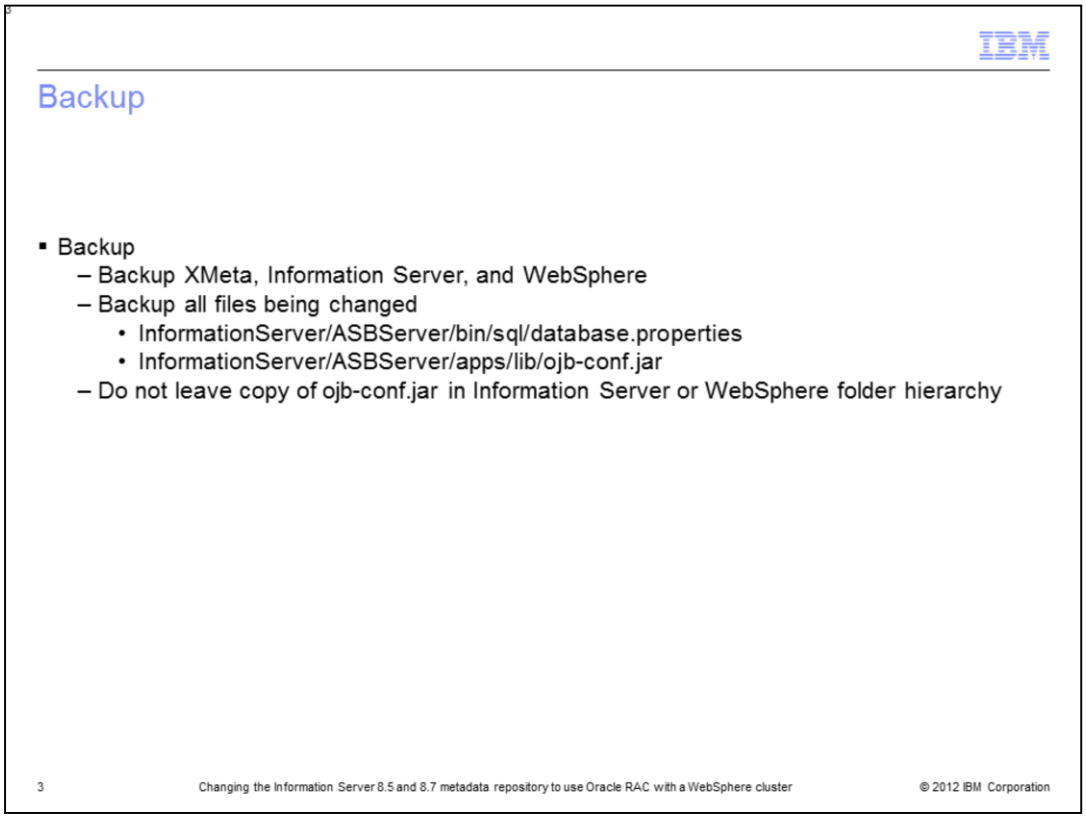
Changing the Information Server 8.5 and 8.7 metadata repository to use Oracle RAC with a WebSphere cluster



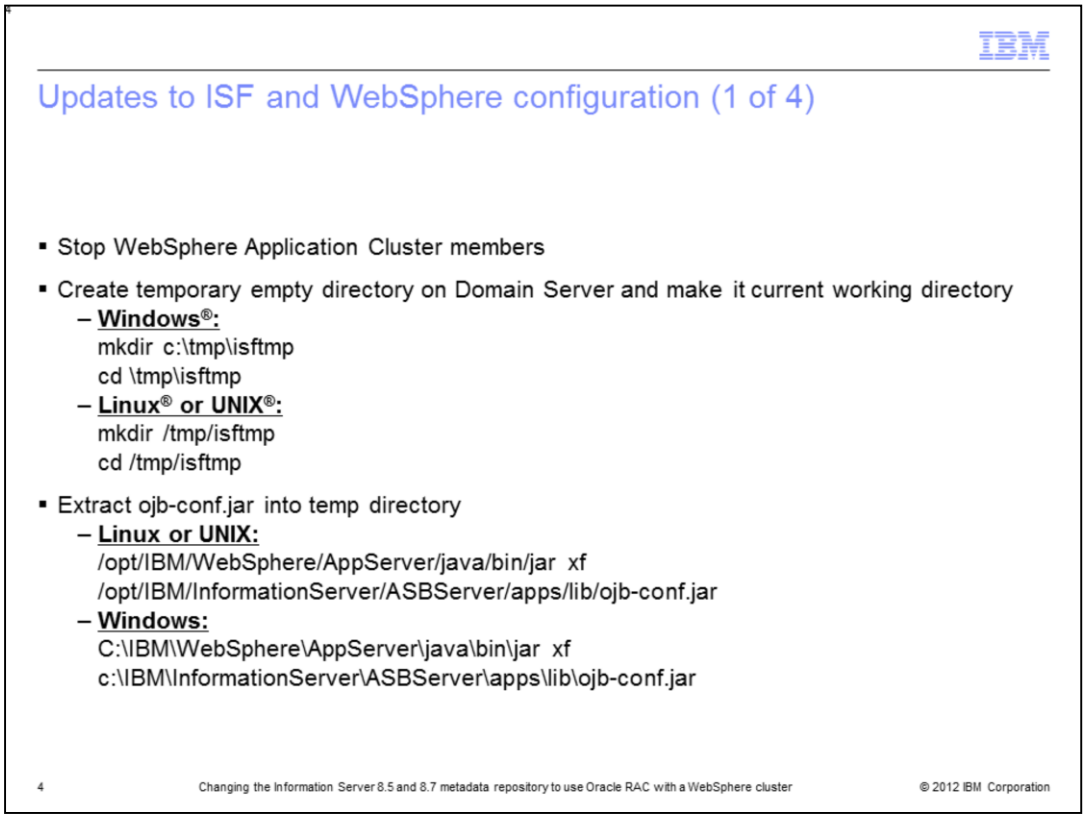
This presentation will discuss how to change the Information Server Metadata repository to use Oracle RAC for Information Server 8.5 and 8.7 using a WebSphere® cluster.



The objectives of this presentation are to identify and backup the files that are modified, update the Information Server Framework configuration, and update the WebSphere Application Server configuration.

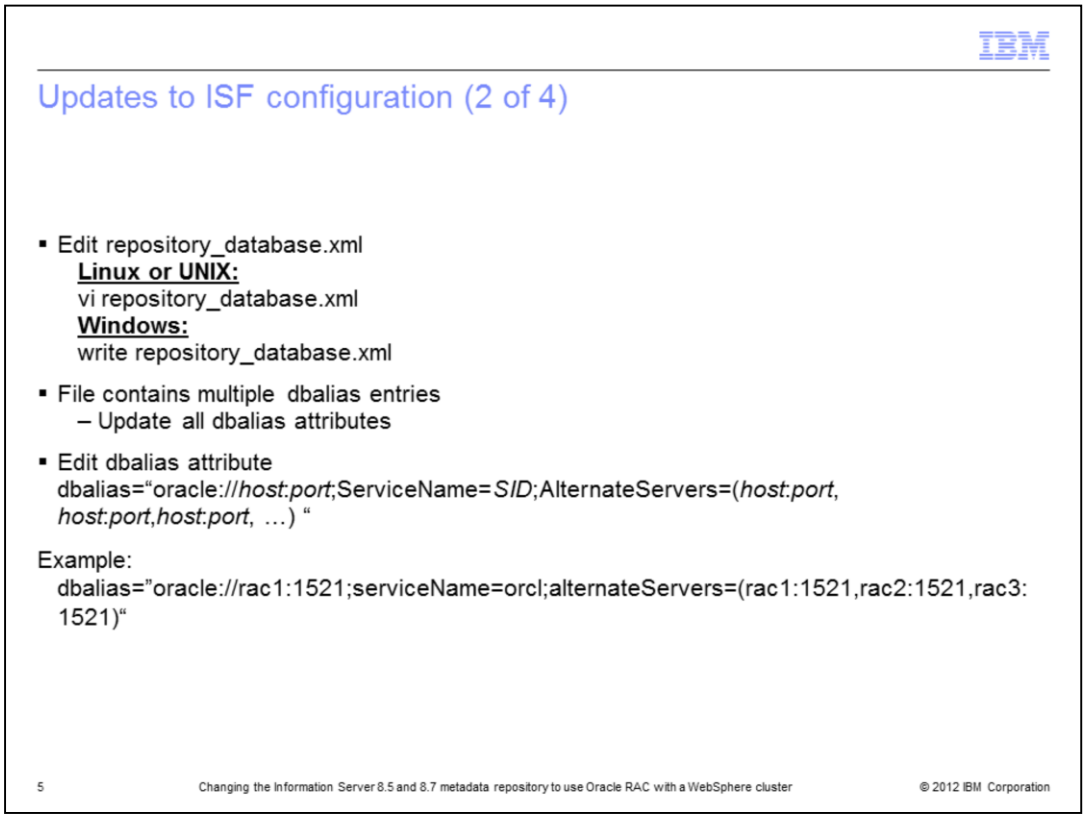


Before you make any changes to XMeta, Information Server, or WebSphere, it is good practice to take a complete backup of all three installations. It is safest to do a cold backup of the WebSphere Application Server by stopping WebSphere before you do the backup. It is also good practice to make a copy of all the files that are changed during this process to make it easier to revert back if necessary. The files that are key to make copies of are displayed on this slide. Ensure the backup of ojb-conf.jar is not left in the IBM Information Server or WebSphere folder hierarchy.

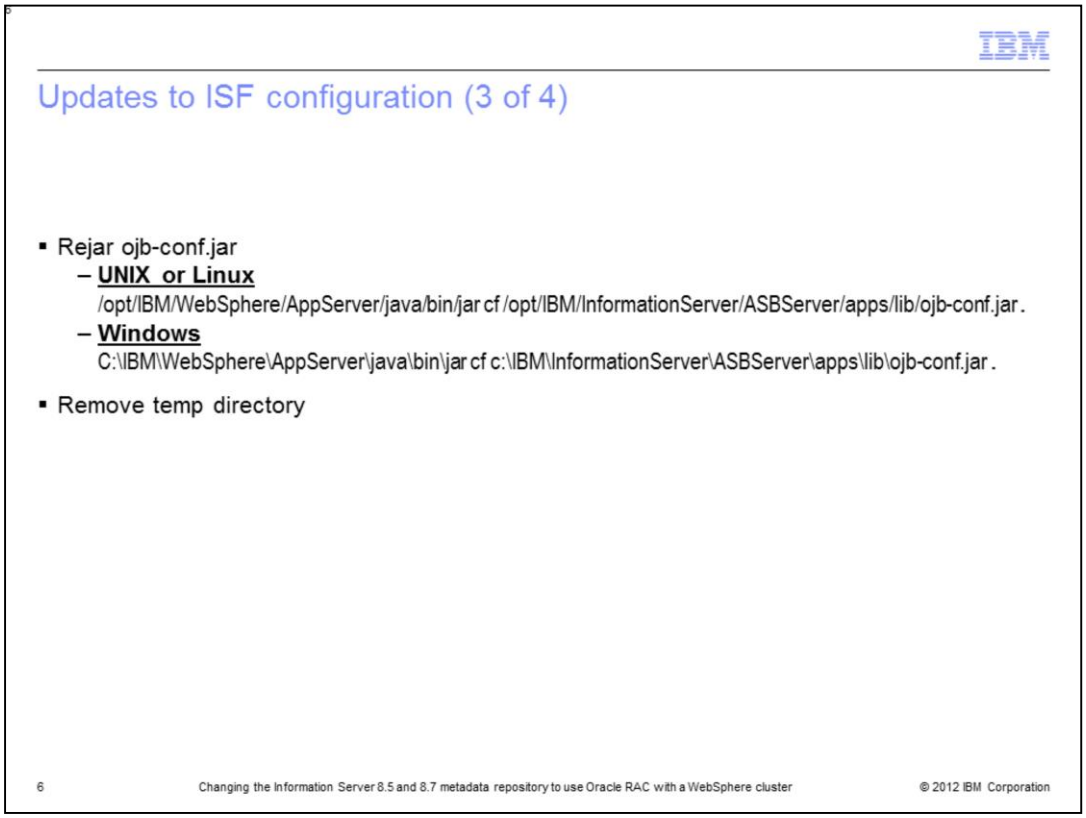


The next step is to update the Information Server Framework configuration. To do this, stop the WebSphere Application Cluster members first. After stopping the WebSphere Application cluster members, create a temporary directory on your domain server and set it as your current working directory.

While in your newly created temp directory, extract the ojb-conf.jar file using the jar utility of a JDK. For example, the JDK in WebSphere. Example commands are displayed on this slide. This command will extract ojb-conf.jar and place the contents in your temp directory.

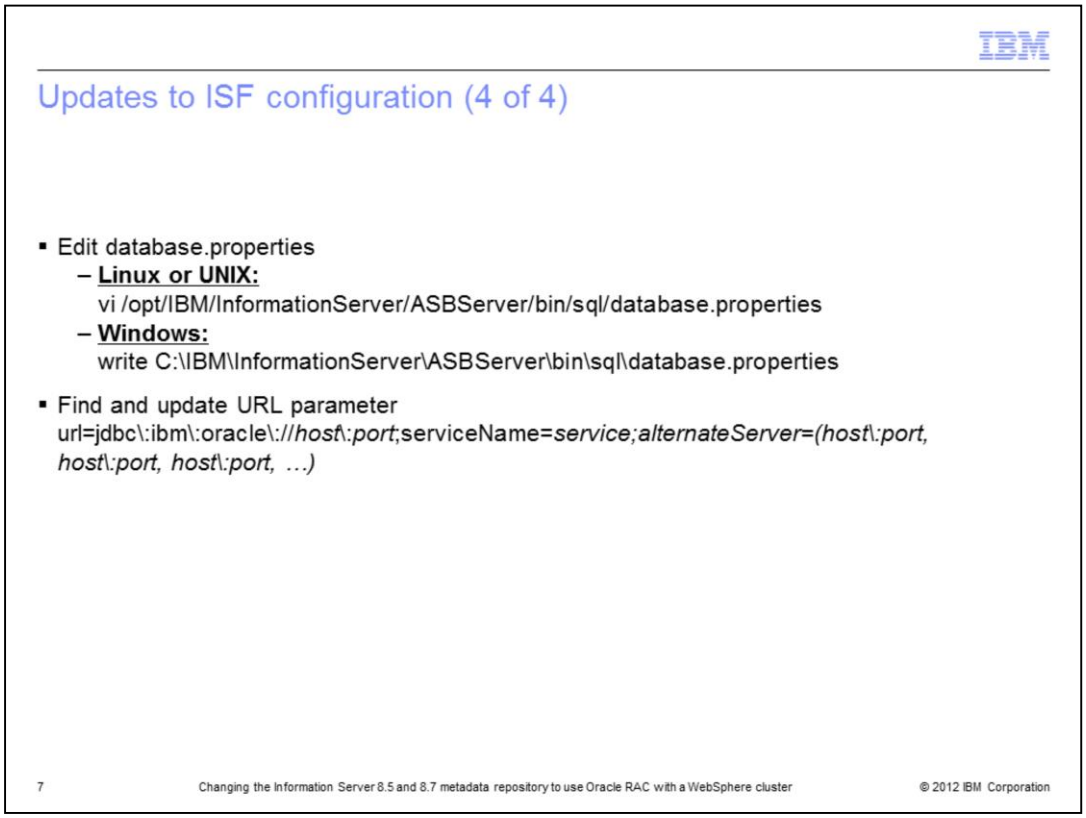


The next step is to edit the repository_database.xml file that is in your temp directory. Use the vi command for Linux and UNIX or open the file in WordPad by using the write command if on Windows. Search for all of the dbalias attributes. Edit every dbalias attribute with the right host, port and dbname value. Save the file.

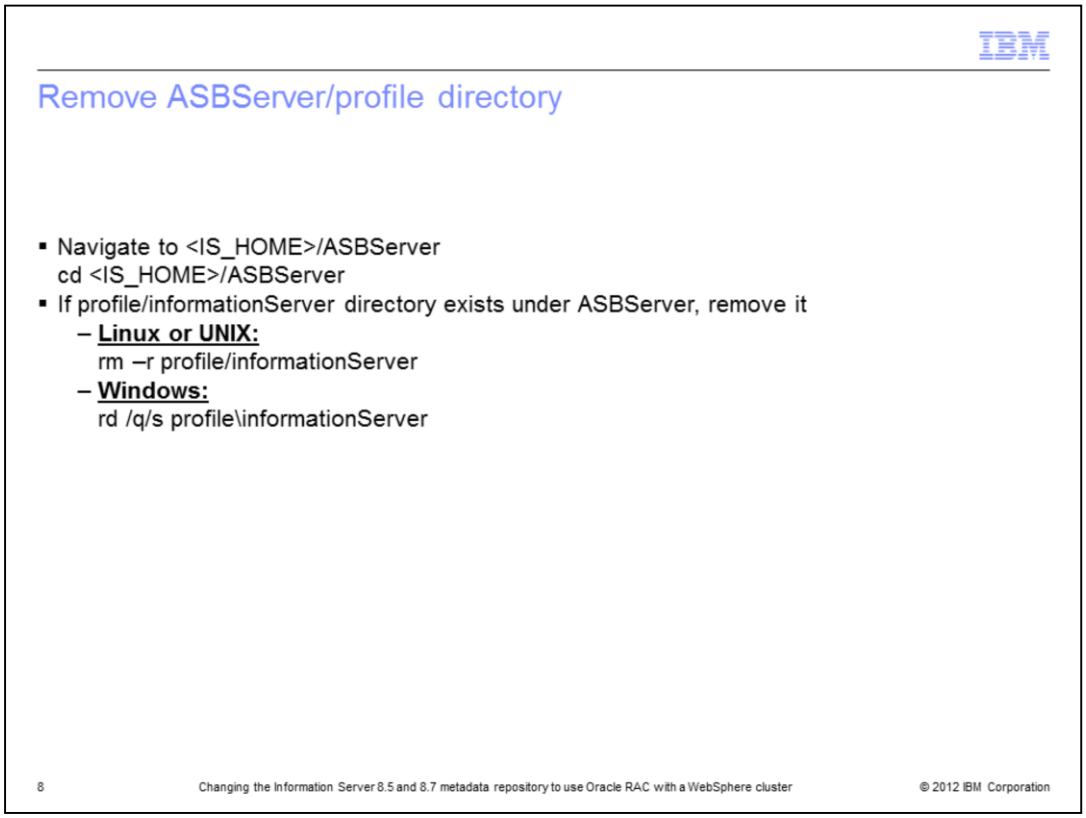


After updating the dbalias attribute, re-jar ojb-conf.jar with the updated repository_database.xml file using the jar utility of a JDK. For example, the JDK in WebSphere. Be sure you are still in your temp directory. Use the example command shown on this slide to re-jar the file. Be sure to edit the command to use the appropriate paths for your installation.

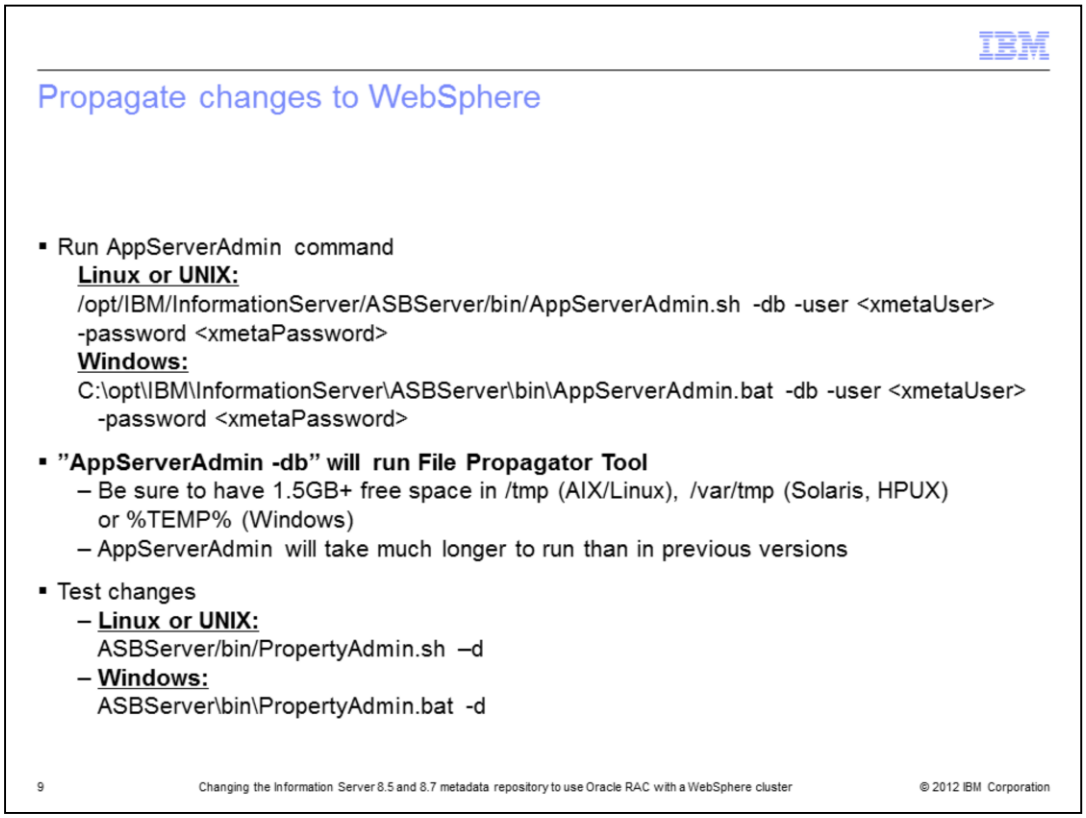
You must remember to put the “space dot” at the end of the jar command. After this step is completed, delete the temp directory.



The next step is to edit the database.properties file in the InformationServer/ASBServer/bin/sql directory. Find and update the URL parameter to reflect the new repository server name and port. After updating, save the file.



The next step is to remove the informationServer/ASBServer/profile/informationServer directory. Navigate to your InformationServer home directory and then change directories to the ASBServer subdirectory. Check to see if the profile/informationServer directory exists. If it does exist, remove the directory using one of the commands displayed on this slide.



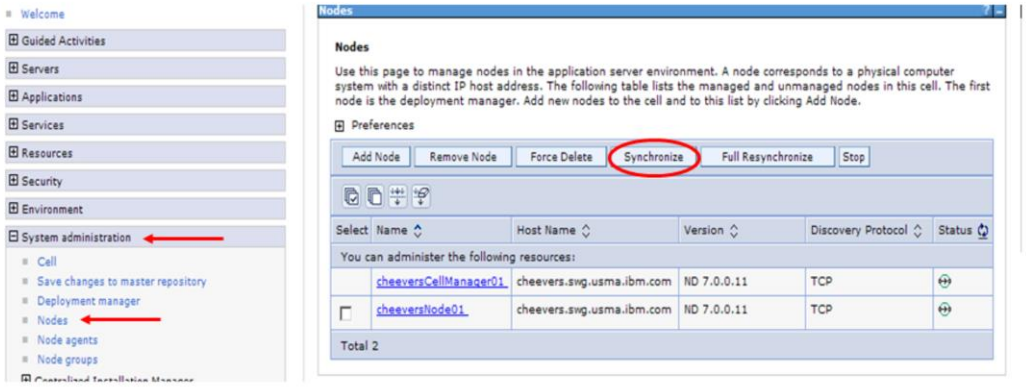
Starting at version 8.5, the changes to ojb-conf.jar also need to be propagated to WebSphere. The AppServerAdmin -db command will run the FilePropagator tool so the command will take longer to complete than in previous versions of Information Server and requires at least 1.5 gigabytes of free space in your temp directory.

Run the AppServerAdmin command as displayed in the example on this slide. If your XMeta password has changed, this step will also reset it to the new password. Once AppServerAdmin completes, it is best to check that the new ojb-conf.jar is correct. To do this, run the PropertyAdmin command in ASBServer/bin. You just need to be sure that this command returns successfully. If it does not, go back and check the changes you made to ojb-conf.jar before continuing.

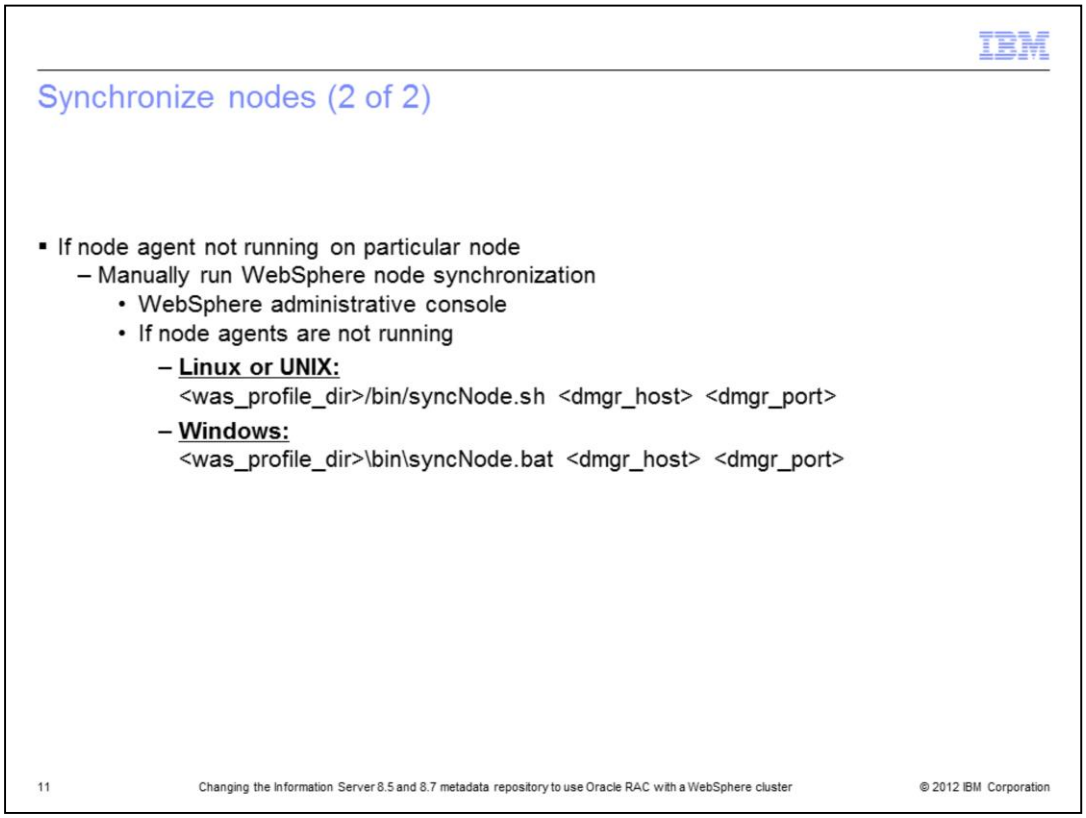
Once AppServerAdmin is complete, you need to synchronize the nodes.

Synchronize nodes (1 of 2)

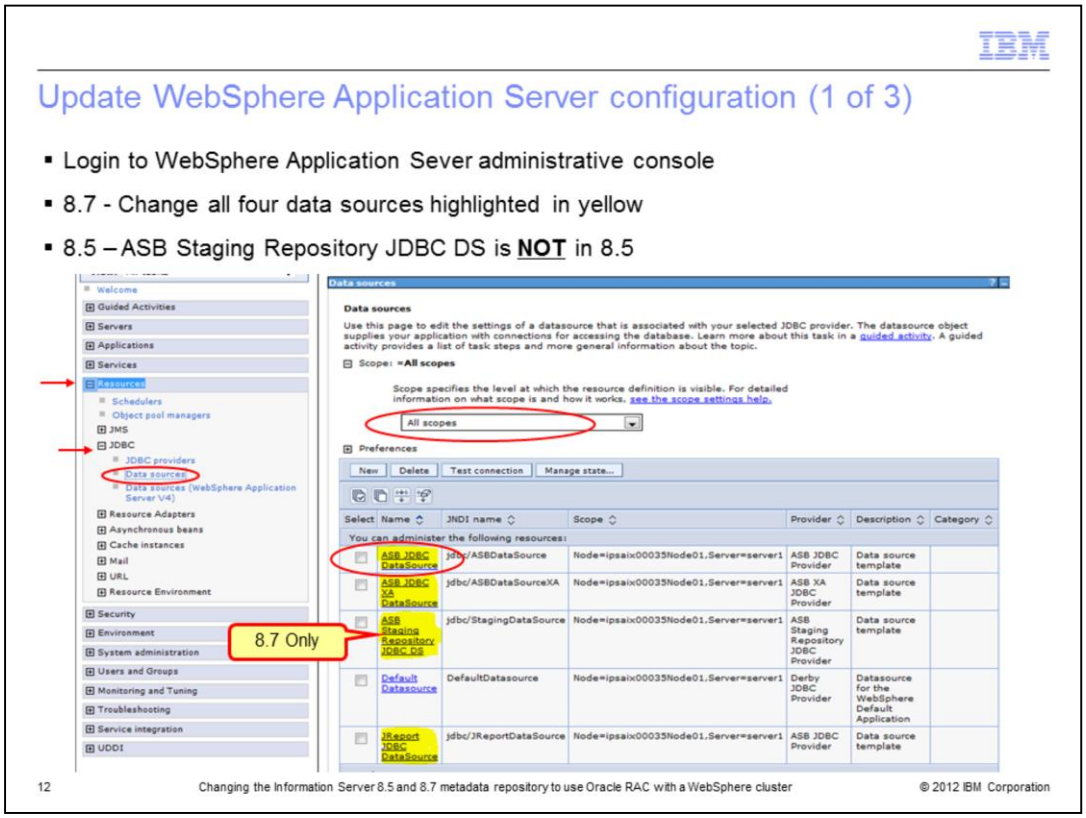
- Manually run WebSphere node synchronization
  - WebSphere administrative console
    - System Administration => Nodes => Synchronize
  - If unable to login to administrative console
    - Restart WebSphere deployment manager



Manually run WebSphere node synchronization. This can be done through the WebSphere administrative console. From the administrative console, click System Administration, Nodes, and click the Synchronize button. In some cases, you may not be able to login to the WebSphere administrative console after making the changes described in the previous slides. If this is the case, restart the WebSphere Deployment manager. This should allow you to get back into the WebSphere administrative console.



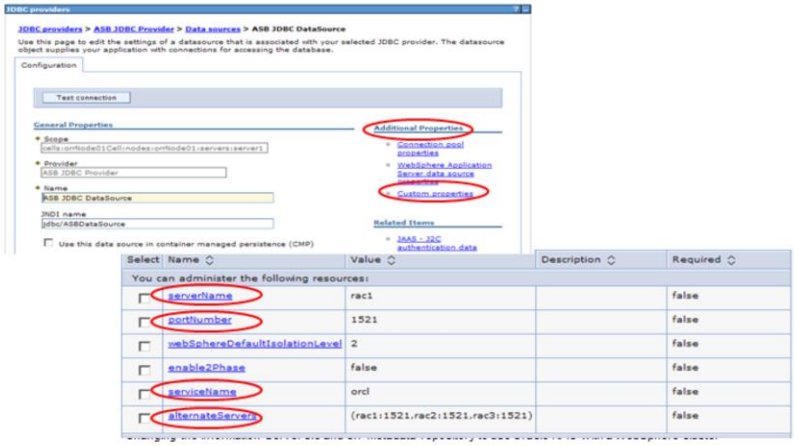
If there is a node or nodes in the cluster where the node agent is not running, you are not able to do the synchronization by way of the WebSphere administrative console. In this case, you can do the synchronization by running the syncNode command displayed on this slide. Run the syncNode command on the node profile which needs to be synchronized. dmgr_host is the name of the host running the Deployment Manager and dmgr_port is the port the Deployment manager is running on. The default value for dmgr_port is 8879.



Login to the WebSphere Application Server administrative console. Click the Resources tab on the left side and then click JDBC and then Data sources underneath. This will display four data sources in version 8.5 and five data sources in 8.7. In addition to the four in 8.5, 8.7 also includes the ASB Staging Repository JDBC data source. The changes described in the next few slides will need to be done on all of the data sources highlighted in yellow on this slide. To start, click the first data source, ASB JDBC DataSource. If you do not see the data sources shown on this slide, go to the Scope section, click the drop down and select All scopes. All of the data sources should now appear in the box.

Update WebSphere configuration (2 of 3)

- Modify connection properties
  - Remove properties
    - databaseName
    - SID
  - Add properties (names are case sensitive)
    - serviceName value <service name>
    - alternateServers value (host1:1521,host2:1521,host3:1521)



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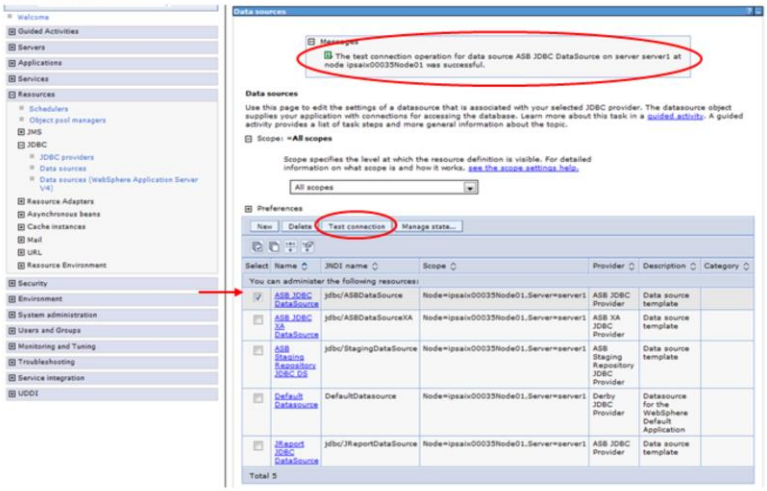
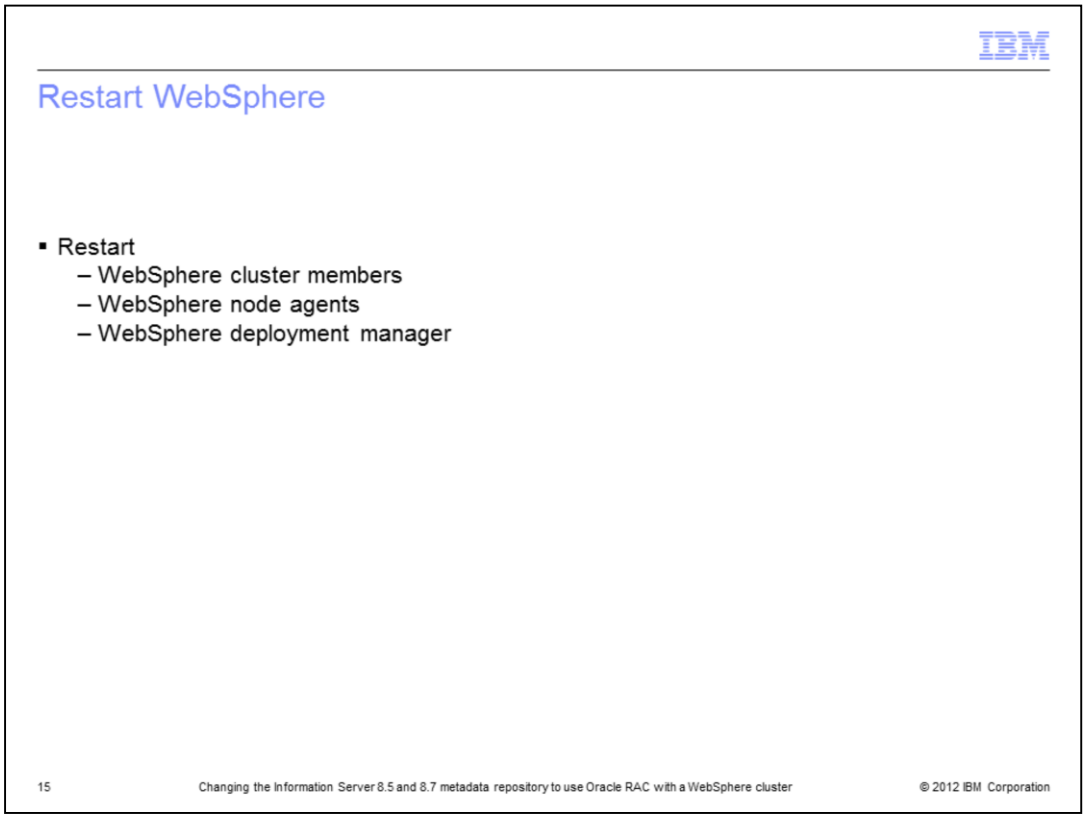
Under additional properties, click Custom properties. Click the values that have changed and set the values appropriately. Remove the properties databaseName and SID. Add both serviceName and alternateServers in the connection properties. Set the serviceName value to the service name for Oracle RAC and the alternativeServers value to the host:port. Add multiple servers using a comma.

Update WebSphere configuration (3 of 3)

- Return to data sources page
- Repeat procedure for remaining data sources
- Test connections



Return to the Data sources page, click the data source that you modified, and click **Test Connection.** Once the test completes successfully, go back and modify the remaining data sources in the same manor. Repeat the procedure on slides twelve through fourteen for the remaining data sources.



After all changes have been made, saved, and successfully tested, restart the WebSphere cluster members, the WebSphere node agents, and then lastly, the WebSphere Deployment Manager.

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