## Information Server DataStage

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



This presentation will discuss how to change the Information Server Metadata repository to use Oracle RAC. It will discuss versions 8.5 and 8.7 of Information Server running with non-clustered WebSphere<sup>®</sup>.

IRM

Objectives
<ul> <li>Back up all files being changed</li> </ul>
<ul> <li>Update Information Services Framework (ISF) configuration</li> </ul>
<ul> <li>Update WebSphere Application Server configuration</li> </ul>
<ul> <li>Non-clustered WebSphere only         <ul> <li>See IBM Education Assistant module "Changing the Information Server 8.5 and 8.7 metadata repository to use Oracle RAC with a clustered WebSphere"</li> </ul> </li> </ul>
2 Changing the Information Server 8.5 and 8.7 metadata repository to use Oracle RAC with non-clustered WebSphere © 2012 IBM Corporation

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.

This presentation applies to versions 8.5 and 8.7 of Information Server with non-clustered WebSphere only. If you are using a WebSphere cluster, see the IBM Education Assistant module "Changing the Information Server 8.5 and 8.7 Metadata repository to use Oracle RAC with a clustered WebSphere".

	IBM
Backup	
<ul> <li>Backup</li> <li>Backup XMeta Information Server and WebSphere</li> </ul>	
- Backup Alles being changed	
<ul> <li>InformationServer/ASBServer/bin/sql/database.properties</li> </ul>	
<ul> <li>InformationServer/ASBServer/apps/lib/ojb-conf.jar</li> <li>Do not leave copy of oib-conf iar in Information. Server or WebSphere folder b</li> </ul>	hierarchy
	liciality
3 Changing the Information Server 8.5 and 8.7 metadata repository to use Oracle RAC with non-clustered WebSphere	© 2012 IBM Corporation

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.

IBM
Updates to ISF and WebSphere configuration (1 of 3)
<ul> <li>Stop WebSphere Application Server</li> </ul>
<ul> <li>Create temporary empty directory on Domain Server and make it current working directory         <ul> <li><u>Windows®:</u> mkdir c:\tmp\isftmp cd \tmp\isftmp</li> <li><u>Linux® or UNIX®:</u> mkdir /tmp/isftmp cd /tmp/isftmp</li> </ul> </li> </ul>
<ul> <li>Extract ojb-conf.jar into temp directory         <ul> <li><u>Linux or UNIX:</u> /opt/IBM/WebSphere/AppServer/java/bin/jar.xf /opt/IBM/InformationServer/ASBServer/apps/lib/ojb-conf.jar</li> <li><u>Windows:</u> C:\IBM\WebSphere\AppServer\java\bin\jar.xf c:\IBM\\InformationServer\ASBServer\apps\lib\ojb-conf.jar</li> </ul> </li> </ul>
4 Changing the Information Server 8.5 and 8.7 metadata repository to use Oracle RAC with non-clustered WebSphere © 2012 IBM Corporation

The next step is to update the Information Server Framework configuration. To do this, stop WebSphere first. After stopping WebSphere, 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. This slide displays an example of the command to use. Be sure to put in the appropriate path for your WebSphere and Information Server installations.

You must remember to put the "space dot" at the end of the jar command.

After this step is completed, delete the temp directory.

	IBM
Copy changes to WebSphere	
<ul> <li>Copy new ojb-conf.jar to WebSphere cp <is_homedir>/ ASBServer/apps/lib/ojb-conf.jar <was_install_dir>/AppServer/profiles/InfoSphere/informationServer/apps/lib</was_install_dir></is_homedir></li> </ul>	
7 Changing the Information Server 8.5 and 8.7 metadata repository to use Oracle RAC with non-clustered WebSphere	© 2012 IBM Corporation

Starting with Information Server 8.5, a copy of the ojb-conf.jar file is located under the WebSphere install directory. Copy the new ojb-conf.jar file that was created in the previous slides to your WebSphere installation. Use the command displayed on this slide for the location to copy this file to.



Next, edit the database.properties file in the InformationServer/ASBServer/bin/sql directory. Update the URL parameter to reflect the repository server names and ports. After updating, save the file and restart WebSphere.



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 displayed 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.

					IBA
Jodate W	ebSphere confic	nuration (2 of	3)		
puuto II	obophoro comig		0)		
Modify co	nnection properties				
Noully col	ninection properties				
- Keniov	ve properties				
	abasename				
• SID					
– Add pr	operties (names are c	case sensitive)			
• serv	viceName value <servi< td=""><td>ice name&gt;</td><td></td><td></td><td></td></servi<>	ice name>			
<ul> <li>alter</li> </ul>	rnateServers value (ho	ost1:1521,host2:1	521,host3:	1521)	
1086 considers					
JUNC PROVIDENS		49			
THE second and b 450					
Use this name to edit th	DBC Provider > Data sources > ASB JDBC DataSource	e selected JDBC provider. The datasource			
Use this page to edit th object supplies your ap	LIDBC Provider > Data sources > ASB JDBC DataSource the settings of a datasource that is associated with your s pplication with connections for accessing the database.	e selected JDBC provider. The datasource			
Use this page to edit ti object supplies your ap Configuration	LIDBC Provider > Data sources > ASB JDBC DataSource the settings of a datasource that is associated with your a pplication with connections for accessing the database.	e selected JDBC provider. The datasource			
Configuration Configuration Test connection	LOBC Provider > Data services > ASB JOBC DataSever. the setting of a datasever that is associated with your pplication with connections for accessing the database.	eselected JDBC provider. The detasource			
Configuration	LIDEC_Provider > Data servers > ASR JOEC DataServer. the settings of a databaserver that is associated with your pplication with connections for accessing the database.	selected JOBC provider. The datasource			
Configuration Co	LUBC Provider > Data succes > ASI JOIC Detailswort	estetted JDBC provider. The datasource			
Configuration Co	LUBC Provider > Data servers > ASH JORC Detailswort his settings of a detailor with the associated with your pplication with connections for accessing the detailsase.	Additional Progenter     Concettion and     Co			
com_stickings > Asis     com_stickings > Asis     com_stickings > Asis     compared to apply to set     configuration         Test connection         Central Properties         * <u>Bright</u> asis control of 0.2         * <u>Bright</u> add 20000 Provide 10	1JBEC Provider > Data succes > ASH JOEC Obtainment the satisfys of a databaseven that is associated with your splitation with connections for accessing the database. 	Additional Properties     Constraints     Constrat     Constraints     Constraints     Co			
Annu Altonitati - Annu Une the page to add Configuration Test connection <u>Annual Properties</u> <u>- Segge</u> <u>- Segge</u> - <u>Segge</u> - <u></u>	1.UBC.Provider > Data survey. > ASH JOEC DataSurvey.  I.UBC.Provider > Data survey.  International of a database.  International operation of the database.	Additional Properties     Contaction and     accentian     Contaction and     accentian     Contaction and     accentian     Contaction and     accentian			
Annual controlled > Annual Controlled > Annual Controlled > Annual Controlled > Configuration Control	UBEC Provider > Data surveys > ASH JOEC DataSurvey to be settings of a database with the associated with your splitation with connections for accessing the database.	Additional Properties Contactions and Second Second Custom Leaders Contactions Custom Leaders Custom Leaders			
Configuration Co	UBEC Provider > Data succes > ASE JOEC DetaSucces UBEC Provider > Data success > ASE JOEC DetaSucces particular of the connections for accessing the database.	Additional Programmer Additional Programmer Control			
Centry of the second se	LUBEC Provider > Data survey: > ARP JOEC DataSevery heatings of a datasevery that associated with your pplotation with connections for accessing the database.		Description 🗘	Required 0	
Annual discussion of the second secon	IJBEC Provider > Data survey: > ASP JOEC DataSevery backbarren etch convection for accessing the dataSever  s  s  s  s  s  s  s  s  s  s  s  s  s		Description 🗘	Required 🗘	
Annual Costellar y Alla Une the large the delt the Configuration Configuratio Configuration Configuration Configuration Configuration	LUBC Provide > Data survey > AS JOIC Obtainment built built of the survey of the surv	Additional Properties  Additional Properties  Consolidate additional  Consolidate additionadditional  Consolidate additional	Description 🗘	Required 🗘	
Configuration Co	LUBC Provide > Data survey. > ASI JOIC DataSever. In the setting of a databasever the it associated with your splitation with connections for accessing the database. In the setting of a database dat	Additional Properties	Description 🗘	Required ≎ false false	
Configuration     Configu	LUBC Provider > Data succes > ASI JOEC DataSucce. In Status of the dataSucces > ASI JOEC DataSucce. In Status of the dataSucces and the dataSucces. In Status of the dataSucces of the dataSucces. In Status of the dataSucces of the dataSucces. In Status of the dataSuccess of		Description 🗘	Required $\diamondsuit$ false false false	
Configuration     Configu	LUBE: Provider > Data survey: > ASI JOEC Obtainment backling of a databasers backling of a databasers backling of the databasers		Description 🗘	Required $\diamondsuit$ false false false	
Configuration     Configu	LUBE Provide > Data succes > A81 JOEC Obtainment backeting of a databased backeting of the databased of the local backeting of the databased of the local backeting of the databased backeting of the databased of the local backeting of the databased of the local backeting of the databased of the databased backeting of the databased of the databased backeting of the databased of		Description 0	Required 🗘 faise faise faise faise	
Ann. Attractions / Ann Use the specific of the Configuration Configurati	LUBE Provider > Data succes > AS JOIC Obtainment babeleting of a database that is associated with your pplateinn with connections for accessing the database.		Description ()	Required $\bigcirc$ false false false false false false	

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.

odate \	WebSphere cor	nfiau	urat	tion (3	of 3)				
	the second second second			(-					
Return	to Data sources page								
	to Data coalcoo page								
Popoat	procedure for remain	ina a	data	courooc					
Repeat	procedure for remain	ing c	lala	sources					
_									
Test co	nnections								
Restart	WebSphere								
restart	Webophere							100	
	* Welcome	Data see	Nes					7	
	Ouided Activities		-	-		_	-		
	E Servers		8	Marco and a second seco					
	Applications			node (psaix00035Node0	I was successful.	roe on serve	r servers at		
	IB Services								
	E Resources	Datas	ources						
	# Schedulers	Use th suppli-	is page to e	dit the settings of a datas ization with connections for	ource that is associated with your selected : r accessing the database. Learn more about	108C provide t this task in	r. The datazoun	re object A puided	
	<ul> <li>Object poel managers</li> <li>Date</li> </ul>	activity	provides a	list of task steps and mor	re general information about the topic.		- ALCONGLASSICS		
	8 1080	E \$ce	per =All sco	pes					
	3DBC previders		Scope sp	ecifies the level at which t	the resource definition is visible. For detaile	d			
	Data sources     Data sources     Data sources		informat	ion on what scope is and	how it works, see the scope settings help.				
	(4)		All sco	ipes					
	E Resource Adapters	E Pre	ferences						
	E Cache instances	Net	Delete	Test connection Man	ege state-				
	E Mail	100	16. (141) (172)	$\smile$					
	E URL	(C) (	U(1)(1)						
	Resource Environment	Select	Name 🗘	JNDI name C	Scope Q	Provider ()	Description Q	Category O	
	E Security	Tou e	ASE JOPC	idbc/ASBOataSources	Nodesignaly00025Node01.Serverserver1	A58 3080	Data source		
	Environment	1 (K	DataSource	procession and a second		Provider	template		
	13 System administration	8	ASE JOEC	jdbc/AS8DataSourceXA	Node+ipsaix00025Node01.Server+server1	ASB XA 208C	Data source template		
	E Users and Groups		DataSource			Provider			
	Monitoring and Tuning	1	ASB Staping	jdbc/StagingDataSource	Node=ipsaix00035Node01.Server=server1	ASB Staging	Data source template		
	E Traveleshooting		Repository JOEC DS			Repository 206C			
	E Service integration					Provider			
	B 0001	8	Default Datasource	DefaultDatasource	Node+ipsaix00035Node01,Server+server1	Derby 3DBC Provider	Datasource for the WebSphere Default		
		•	2Report	jdbs/3ReportDataSource	Node+ipsaix00035Node01.Server+server1	ASB JDBC Provider	Data source template		
			and the second se						

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 nine through eleven for the remaining data sources.

If all the test connections succeed, restart WebSphere for the changes to take effect.

Trademarks, disclaimer, and copyright information	
IBM, the IBM logo, ibm.com, DataStage, and WebSphere are trademarks or registered trademarks of International Business Machi registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A c IBM trademarks is available on the web at " <u>Copyright and trademark information</u> " at http://www.ibm.com/legal/copytrade.shtml	nes Corp., urrent list of other
THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. Window logo are registered trademarks of Microsoft Corporation in the United States, other countries, or both.	vs, and the Windows
UNIX is a registered trademark of The Open Group in the United States and other countries.	
Other company, product, or service names may be trademarks or service marks of others.	
THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. WHILE MADE TO VERIFY THE COMPLETENESS AND ACCURACY OF THE INFORMATION CONTAINED IN THIS PRESENTATION, "ASIS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. IN ADDITION, THIS INFORMATION IS BASED ON IBM PRODUCT PLANS AND STRATEGY, WHICH ARE SUBJECT TO CHANGE BY IBM WITHOUT NOTICE. IBM SHALL NOT BER ANY DAMAGES ARISING OUT OF THE USE OF, OR OTHERWISE RELATED TO, THIS PRESENTATION OR ANY OTHER DO NOTHING CONTAINED IN THIS PRESENTATION IS INITENDED TO, NOR SHALL HAVE THE EFFECT OF, CREATING ANY W REPRESENTATIONS FROM IBM (OR ITS SUPPLIERS OR LICENSORS), OR ALTERING THE TERMS AND CONDITIONS OF, OR LICENSE GOVERNING THE USE OF IBM PRODUCTS OR SOFTWARE.	EFFORTS WERE IT IS PROVIDED I'S CURRENT ESPONSIBLE FOR CUMENTATION. 'ARRANTIES OR ANY AGREEMENT
© Copyright International Business Machines Corporation 2012. All rights reserved.	

12

© 2012 IBM Corporation