JD Edwards World

Service Enablement Installation and Configuration Guide for A9.3 Update 1

Release A9.3.x

E41132-02

March 2018



JD Edwards World Service Enablement Installation and Configuration Guide for A9.3 Update 1, Release A9.3.x

E41132-02

Copyright © 2013, 2018, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Pr	eface.		V
	Audi	ence	V
	Docu	mentation Accessibility	ν
		ed Documents	
	Conv	entions	V
Pa	rt I C	Overview and Service Enablement Installation	
1	Over	view	
2	Insta	Il Service Enablement	
	2.1	Installing Service Enablement	2-1
Pa	art II I	Deploy and Configure Web Services	
3	Abou	t Deploying and Configuring Web Services	
4	Confi	igure the WebLogic Application Server	
	4.1	Configuring the WebLogic Application Server	4-1
5	Confi	igure the WebSphere Application Server	
	5.1	Configuring the WebSphere Application Server for World JAX-WS Web Services (A9.3.1)	5-1
	5.2	Create an Application Server	
	5.3	Set Up a Shared Library	5-1
	5.4	Set Server Heap Size	5-3
	5.5	Configure Application Security	5-6
	5.6	Set Up Policies and Bindings	
	5.7	Deploy Services	5-23
Α	Insta	II WebLogic Application Server	
	A.1	Installing the WebLogic Application Server	A-1

Create WebSphere Application Server				
B.1	Creating the WebSphere Application Server	B-1		
C Code and Deploy Your Own Web Services				
C.1 C.2				
Uninstall Service Enablement				
D.1	Uninstalling Service Enablement	D-1		
	B.1 Code C.1 C.2 Unins	B.1 Creating the WebSphere Application Server Code and Deploy Your Own Web Services C.1 Coding and Deploying Your Own Web Services C.2 Deployment Profiles Uninstall Service Enablement		

Preface

Welcome to the JD Edwards World Service Enablement Installation and Configuration Guide for A9.3 Update 1.

Audience

This document is intended for implementers and end users of JD Edwards World Web Enablement Services after the A9.3 Update 1 release.

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 Documents

You can access related documents from the JD Edwards World Release Documentation Overview pages on My Oracle Support. Access the main documentation overview page by searching for the document ID, which is 1362397.1, or by using this link:

https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1362397.1

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	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 in examples, text that appears on the screen, or text that you enter.

Part I

Overview and Service Enablement Installation

This part contains these chapters:

- Chapter 1, "Overview,"
- Chapter 2, "Install Service Enablement."

Overview

Thank you for ordering JD Edwards World A9.3.1 Service Enablement. This Java-based service enablement product is a statement of Oracle's continued commitment to the JD Edwards World product family. Service Enablement allows you to integrate your JD Edwards World Software with other software packages through the use of Java-based Web services.

This guide explains installation and configuration options and steps for:

■ JD Edwards World Service Enablement.

See the *JD Edwards World Service Enablement Guide* for general information about JD Edwards World Service Enablement.

Note: In this guide, the name System i includes IBM servers named AS/400, eServer iSeries, System i5, System i or Power Servers running the IBM i for Business operating system.

Install Service Enablement

This chapter contains the topic:

Section 2.1, "Installing Service Enablement."

2.1 Installing Service Enablement

To install Service Enablement

Download and unzip the service enablement archive file.

The download is available via the Update Center.

Start the Oracle Universal Installer (OUI) by running:

Disk1\oui\bin\setup.exe from the extract location

Figure 2-1 Oracle Universal Installer: Welcome screen



2. On the Welcome screen, click Next.

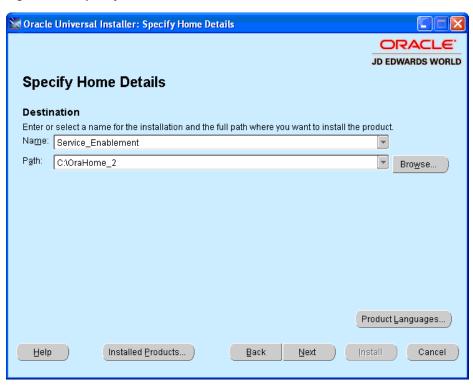


Figure 2-2 Specify Home Details screen

3. On the Specify Home Details screen, enter a folder Name and Path for your installation.

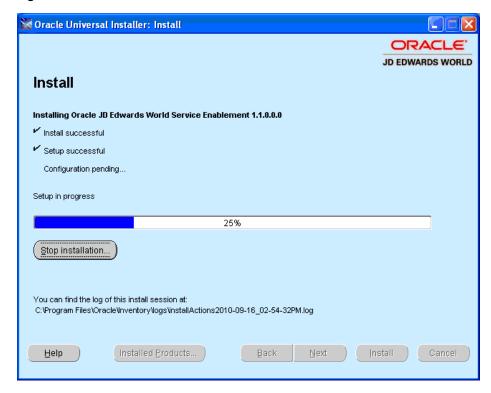
JD Edwards World recommends that you retain the OraHome name in some form for your path directory. Using the OraHome name is an Oracle convention that facilitates consistent directory names among Oracle product installations.

Figure 2-3 Summary screen



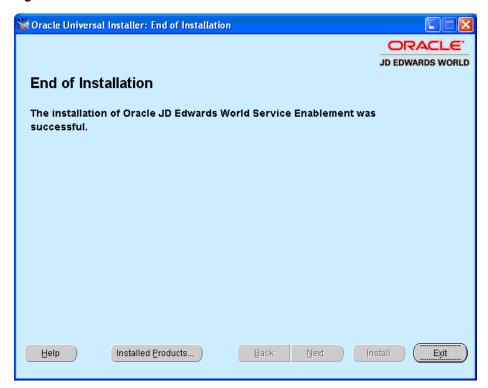
On the Summary screen, click Install.

Figure 2-4 Install screen



The Install screen displays the Setup in progress.

Figure 2-5 End of Installation screen



5. On the End of Installation screen, click Exit.

Figure 2-6 Exit screen



6. On the Exit screen, click Yes.

Part II

Deploy and Configure Web Services

This part contains these chapters:

- Chapter 3, "About Deploying and Configuring Web Services,"
- Chapter 4, "Configure the WebLogic Application Server,"
- Chapter 5, "Configure the WebSphere Application Server."

About Deploying and Configuring Web Services

You must deploy the World Web Service EAR file to a WebLogic or WebSphere application server. All necessary Java security setup occurs after deployment.

The following chapters contain specific deployment and security setup instructions for:

- WebLogic Application Server
- WebSphere Application Server

Note: Make sure you have installed and configured the application server before deploying the EAR file.

Configure the WebLogic Application Server

This chapter contains the topic:

Section 4.1, "Configuring the WebLogic Application Server."

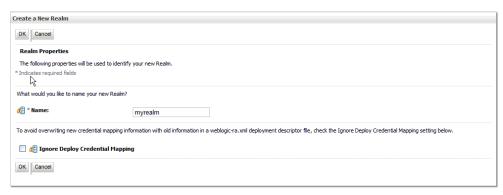
4.1 Configuring the WebLogic Application Server

Before you begin, see the World specific steps outlined in Appendix A, "Install WebLogic Application Server."

To configure the WebLogic Application Server

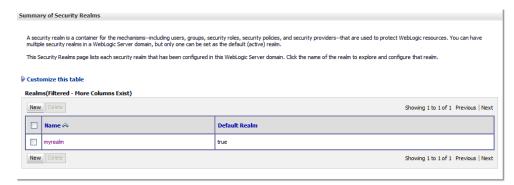
- **1.** Start the WebLogic Admin Server.
 - %SystemRoot%\system32\cmd.exe /k"C:\Oracle\Middleware\user_ projects\domains\base_domain\bin\startWebLogic.cmd"
- **2.** Launch the application server console.
 - http://localhost:7001/console
- **3.** From WebLogic console select Security Realms to create a Security Realm. Click New.

Figure 4-1 Create New Realm screen



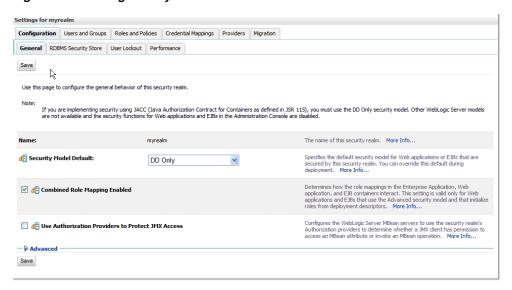
Enter a Realm Name and then click OK.

Figure 4-2 Summary of Security Realms screen



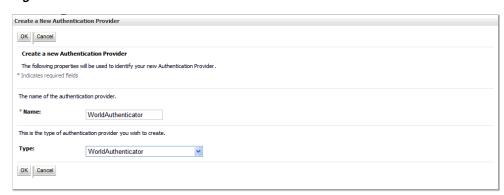
5. Click New to create a realm.

Figure 4-3 Settings for myrealm screen



Select the Providers tab and then click New.

Figure 4–4 Create a New Authentication Provider screen

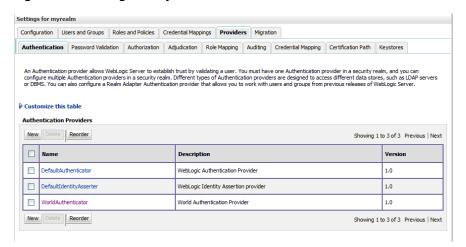


7. Enter the Name and select the Type WorldAuthenticator from the dropdown list. (If the WorldAuthenticator is not listed, review steps 18 and 19 of Appendix A, "Install WebLogic Application Server.")

Click OK.

The WorldAuthenticator displays as one of the Authentication Providers.

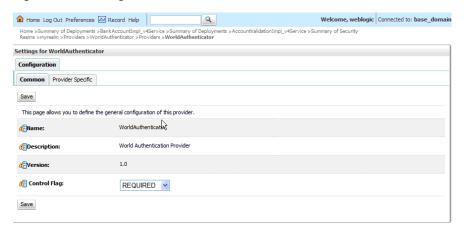
Figure 4-5 Settings for myrealm screen



Make sure the WLS DefaultAuthenticator is before the WorldAuthenticator.

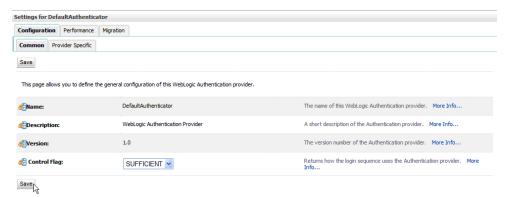
Click the WorldAuthenticator link.

Figure 4-6 Settings for World Authenticator screen



Set the Control Flag to REQUIRED, and then click Save.

Figure 4–7 Settings for Default Authenticator screen



From WebLogic console select Security Realms. Then select the Security Realm (the exsisting or created one), and then select Providers.

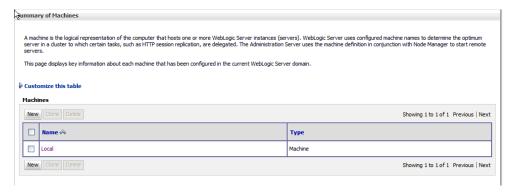
10. Select the DefaultAuthenticator link, and change the Control Flag of the DefaultAuthenticator to SUFFICIENT.

Click Save.

11. Create a machine using default values.

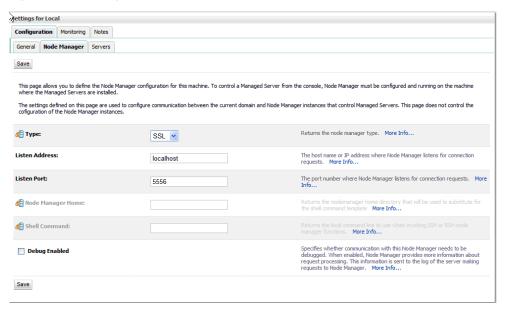
http://localhost:7001/consolehelp/console-help.portal?_nfpb=true&_ pageLabel=page&helpId=machines.ConfigureMachines

Figure 4–8 Summary of Machines screen



12. Select Local Machine.

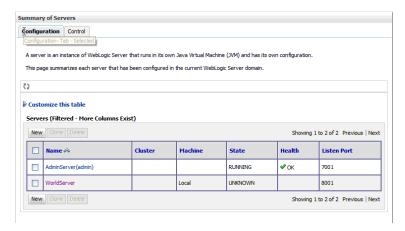
Figure 4-9 Settings for Local screen



13. Create a managed server for the Web Services.

http://localhost:7001/consolehelp/console-help.portal?_nfpb=true&_ pageLabel=page&helpId=domainconfig.CreateManagedServers

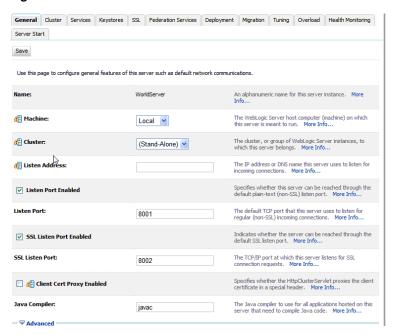
Figure 4-10 Summary of Servers screen



14. Select WorldServer.

Set Machine to machine configured in step 12.

Figure 4-11 Server Start screen



Services use the SSL port (https://). Make sure to verify that the SSL Listen Port is Enabled.

If using NodeManager to start and stop the managed server, select the Server Start tab and configure as the following graphic displays:

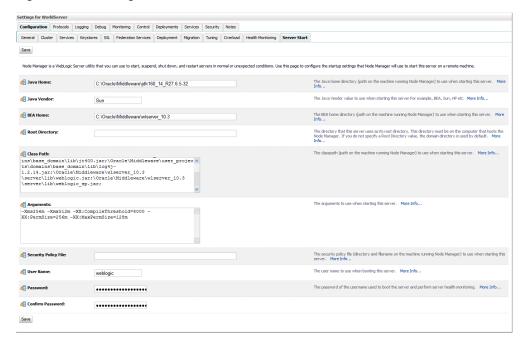


Figure 4–12 Settings for World Server screen

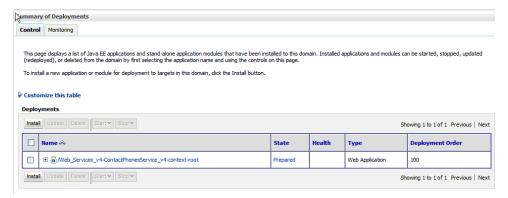
Class Path:

\Oracle\Middleware\user_projects\domains\base_ domain\lib\BaseJar.jar;\Oracle\Middleware\user_projects\domains\base_ domain\lib\JDEWorldJDBC.jar;\Oracle\Middleware\user_ projects\domains\base_domain\lib\jt400.jar;\Oracle\Middleware\user_ projects\domains\base_ domain\lib\log4j-1.2.14.jar;\Oracle\Middleware\wlserver_ 10.3\server\lib\weblogic.jar;\Oracle\Middleware\wlserver_ 10.3\server\lib\weblogic_sp.jar;

Note: For details about the latest version supported for log4j, see Doc ID 2318897.1 in My Oracle Support. (WS: Instructions to Address JD Edwards World Security Vulnerabilities (Doc ID 2318897.1) (Release A9.3 Update)

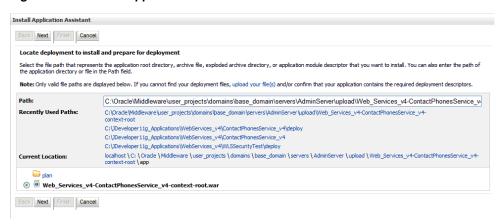
- Arguments:
 - -Xms256m -Xmx512m -XX:CompileThreshold=8000 -XX:PermSize=256m
 - -XX:MaxPermSize=128m
- **15.** Deploy Services to managed server On Server Console, select Deployments.

Figure 4-13 Summary of Deployments screen



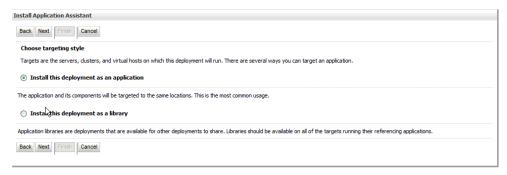
16. Click Install.

Figure 4–14 Install Application Assistant screen



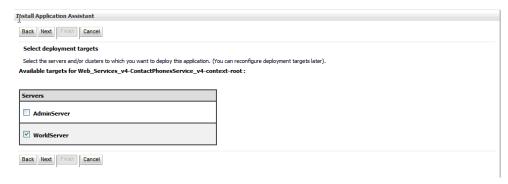
17. Locate service WAR file (WebServices_xx_WLS.ear) and then click Next.

Figure 4–15 Install Application Assistant screen



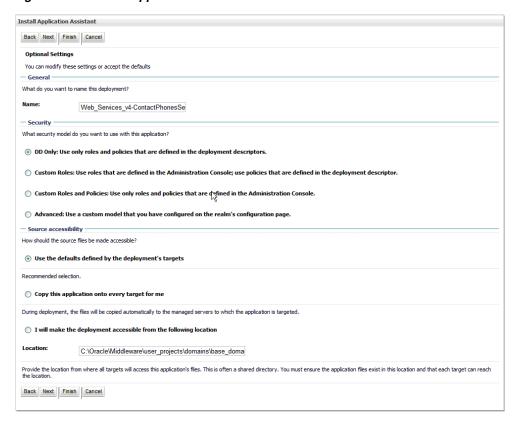
18. Select Install this deployment as an application and then click Next.

Figure 4-16 Install Application Assistant screen



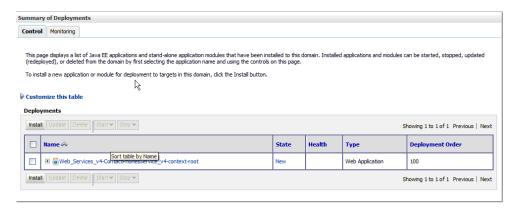
19. Verify the managed server you created earlier, and click Next.

Figure 4-17 Install Application Assistant screen



20. Click Finish.

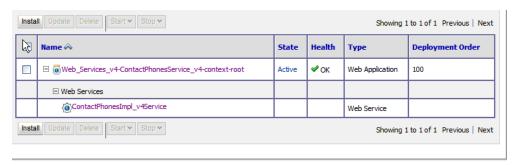
Figure 4-18 Summary of Deployments screen



The Summary of Deployments displays your service.

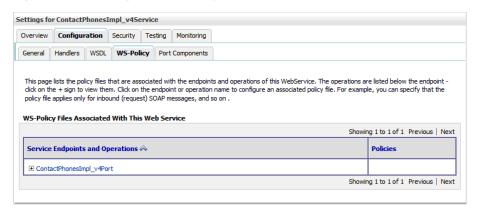
- **21.** Configure security for service (the service must be Active/Started).
- **22.** From the Deployments screen, expand the service you want to secure. Collapse the Modules and EJBs nodes and then select the service you want to secure (for example: AddressBookImpl_v4Service).

Figure 4–19 Summary of Deployments screen



23. Select the web service and then select the Configuration-> WS-Policy tab.

Figure 4–20 Settings for WS-Policy tab



24. Select the option WebLogic on the Configure the Policy Type for a Web Service screen and select Next.

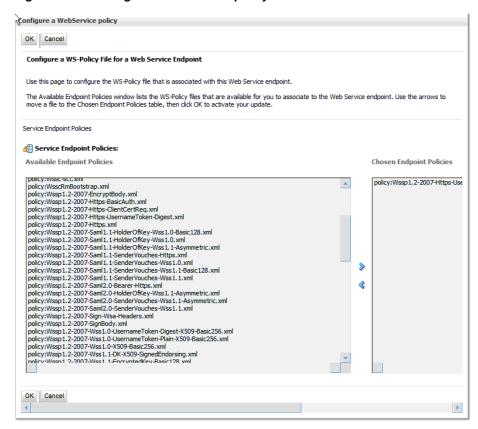


Figure 4-21 Configure a WebService policy screen

25. Select:

policy:Wssp1.2-2007-Https-UsernameToken-Plain.xml

Click the right arrow to move it from the Available Endpoint Policies to the Chosen Endpoint Policies area.

Click OK.

Save the deployment plan.

Save Deployment Plan Assistant OK Cancel Save Deployment Plan You have made configuration changes that need to be stored in a new deployment plan. Sect or enter the path of a deployment plan file. The path must end with '.xml'. It is highly recommended that this file be named 'Plan.xml'. Each plan should be located in its own directory, otherwise applications can inadvertently share deployment plan files. The plan file will be overwritten if it already exists. Other files in the plan directory may be overwritten as well. Path: C:\Oracle\Middleware\user_projects\domains\base_domain\servers\AdminServer\upload\Web_Services Recently Used Paths: C:\Oracle\Middleware\user_projects\domains\base_domain\servers\AdminServer\upload\Web_Services_v4-ContactPhonesService v4-context-root\app C:\Oracle\Middleware\user_projects\domains\base_domain\servers\AdminServer\upload\Web_Services_v4-ContactPhonesService_v4-context-root C:\JDeveloper11g_Applications\WebServices_v4\ContactPhonesService_v4\deploy $C:\label{lem:c:loss} C:\label{lem:c:loss} C:\labe$ $localhost \ C: \ Vorade \ Middleware \ upload \ Veb_Service_v4-ContactPhonesService_v4-context-root \ app$ Current Location: plan OK Cancel

Figure 4–22 Save Deployment Plan Assistant screen

Restart the server.

Access the WSDL.

From the Home Weblogic screen, select Deployments, then Expand Web Services. Select the Web Service Secured in Step 23. Select the Testing tab then Expand the service. Select ?WSDL under Test Point. The service WSDL will open in a browser window. Copy the URL (WSDL) and paste into testing application. Remember to use SSL and the Secure port (listed in Step 14).

26. Test services.

All web services need to specify a security string as part of the SOAP Header in the format DN=username, ADR=machineName, ENV=environment, for example; replace <soapenv:Header/> with the following lines:

```
<soapenv:Header>
<wsse:Security</pre>
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd"
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secex
t-1.0.xsd" xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
soapenv:mustUnderstand="1">
<wsse:UsernameToken</pre>
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd"
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secex
t-1.0.xsd">
<Username>DN=SOAPROXY,ADR=JDED, ENV=A93TS</username>
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-pr
ofile-1.0#PasswordText">edduser93</wsse:Password>
</wsse:UsernameToken>
</wsse:Security>
</soapenv:Header>
```

Configuring	the	WebL	.oaic	Application	Server
-------------	-----	------	-------	-------------	--------

Configure the WebSphere Application Server

This chapter contains these topics:

- Section 5.1, "Configuring the WebSphere Application Server for World JAX-WS Web Services (A9.3.1),"
- Section 5.2, "Create an Application Server,"
- Section 5.3, "Set Up a Shared Library,"
- Section 5.4, "Set Server Heap Size,"
- Section 5.5, "Configure Application Security,"
- Section 5.6, "Set Up Policies and Bindings,"
- Section 5.7, "Deploy Services."

5.1 Configuring the WebSphere Application Server for World JAX-WS Web Services (A9.3.1)

For A.9.3.1, the World Web Services were updated to use the Java API for XML Web Services (JAX_WS). In order to run these services on WebSphere Application Server, there are specific release levels and configuration steps that need to be used.

The functionality for the JAX-WS services requires PM70894, which ships in versions 7.0.0.27, 8.0.0.6, and 8.5.0.2 of WebSphere. If this functionality is required for a earlier release of WebSphere, you will need to contact your IBM representative to check on the availability of an ifix for your specific version.

Please refer to the certification information on myoracle support.com to determine the versions of WebSphere currently certified.

5.2 Create an Application Server

See Appendix B, "Create WebSphere Application Server" in this guide.

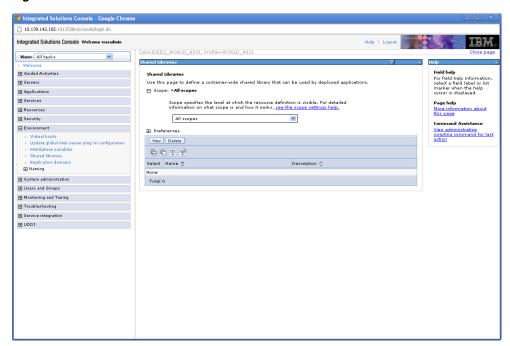
5.3 Set Up a Shared Library

The jt400.jar file needs to be set up in a shared library so that the web services process can authenticate a user. The jt400.jar can be downloaded and saved to an IFS folder.

To set up a shared library

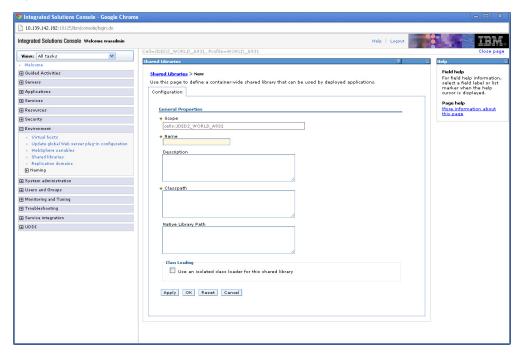
1. Access the WebSphere Integrated Solutions Console and select Environment->Shared libraries.

Figure 5-1 Shared Libraries screen



Select a scope from the drop-down and then click New.

Figure 5-2 Shared Libraries screen



Enter "WAS_A931" in the Name field, and for the classpath, enter "/path," where jt400 is saved as "/jt400.jar."

Integrated Solutions Console Welcome wasadmin ⊞ Guided Activities **⊞** Servers ■ Services ⊞ Resources Security Denoironment
 Virtual hosts
 Update global Web server plug-in configuration
 WebSphere variables
 Shand libraries
 Replication domains
 Naming cells:JDED2_WORLD_A931 * Name WAS_A931 Description ■ System administration ■ Users and Groups * Classpath /WAS_JARS_A931/jt400.jar ■ Monitoring and Tuning ■ Troubleshooting ■ Service integration Native Library Path **⊞** UDDI Use an isolated class loader for this shared library Apply OK Reset Cancel

Figure 5-3 Shared Libraries screen

Click OK.

Click Save.

5.4 Set Server Heap Size

To set server heap size

From the WebSphere Integrated Solutions Console, select Servers_>Server Types_ >WebSphere application servers.

🦻 Integrated Solutions Console - Google Chrome View: All tasks

All tasks

Malcome

Application servers: Application servers Field help
For field help information, select a field label or list marker when the help cursor is displayed. ⊞ Guided Activities Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server. server Types

WebSphere application servers

WebSphere MQ servers

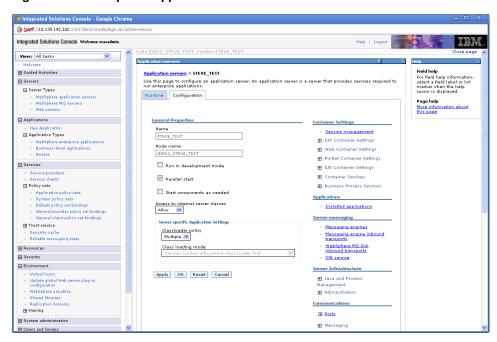
Web servers Page help More information about this page # 9
 Name ↑
 Node ↑
 Host Hame ↑
 Version ↑

 You can administer the following resources:
 STEVE TEST
 JDED2_STEVE_TEST
 JDED2.us-orade.com
 ND 7.0.0.27
 ☐ Applications New Application
 □ Application Types Total 1 ☐ Services ■ Trust service ■ Resources ■ Security Virtual hosts
Update global Web server plug-in configuration
WebSphere variables
Shared libraries
Replication domains ■ Naming ■ System administration

Figure 5-4 WebSphere Application Servers screen

Select your server.

Figure 5–5 WebSphere Application Servers screen



Select Java and Process Management_>Process definition.

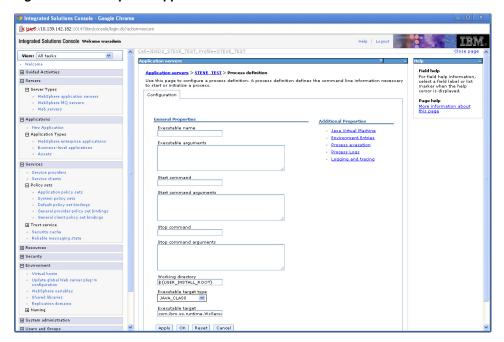
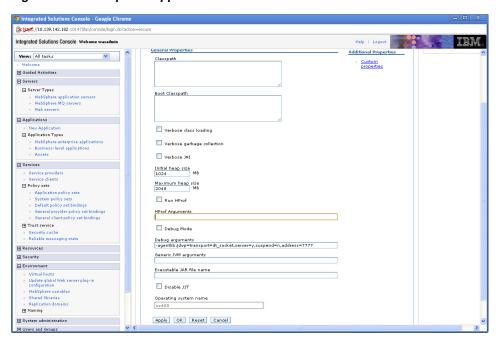


Figure 5-6 WebSphere Application Servers screen

4. Select **Java Virtual Machine**.

Figure 5–7 WebSphere Application Server screen



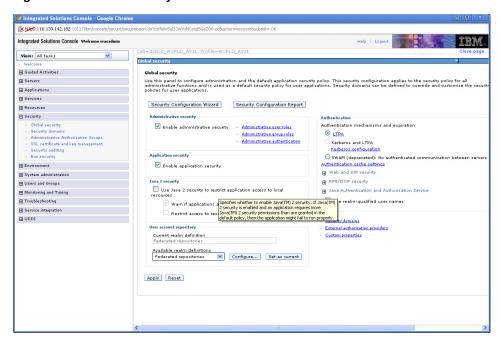
- For the Initial heap size, enter 1024.
- For the Maximum heap size, enter 2048.
- Click OK. 7.
- Click Save. 8.
- Restart the server.

5.5 Configure Application Security

To configure application security

From the WebSphere Integrated Solutions Console, select the Security->Global **Security** option.

Figure 5-8 Global Security screen



- Check the Enable administrative security checkbox and uncheck Use Java 2 security to restrict application access to local resources.
- Select the **Security Configuration Wizard** button.

Figure 5-9 Configure Security screen

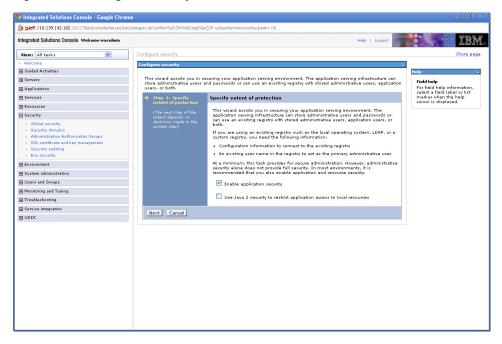
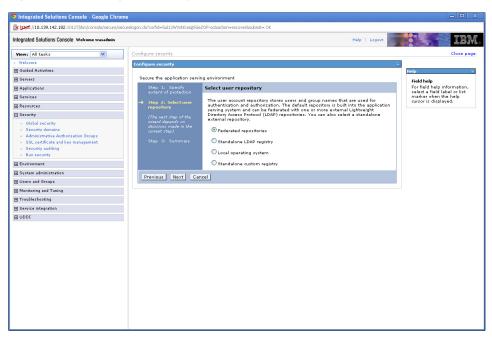


Figure 5–10 Configure Security screen



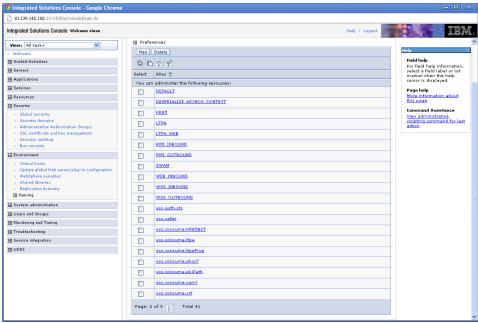
Select **Federated repositories**. Click Next.

Integrated Solutions Console Welcome wasadn View: All tasks ⊕ Guided Activities Services A secure file-based user reporting it built into the system for storing administration users or environments with a small number of users. The file-based user repository can be federated with one or more external LDAP repositories. If this is the first time security has been enabled using this repository, provide a new enabled using this repository, provide the name of a user with administrator privilegase that is in the built in repository. Security
Global security
Security domains
Administrative Authorization Groups
SSL certificate and key management
Security auditing
Bus security Primary administrative user name
 wasadmin ⊞ Environment ■ System administration Password ■ Users and Groups Monitoring and Tuning □ Troubleshooting Service integration Previous Next Cancel ⊞ UDDI

Figure 5-11 Configure Security screen

- Enter a user name and password to be used to administer this server.
- Click Next, and click Finish. 7.
- Expand the Java Authentication and Authorization Service, and select System logins.

Figure 5-12 Configure Security screen



9. Click New.

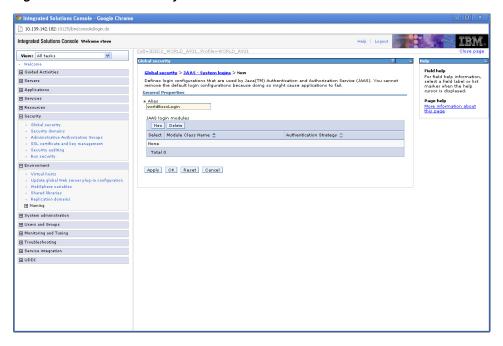
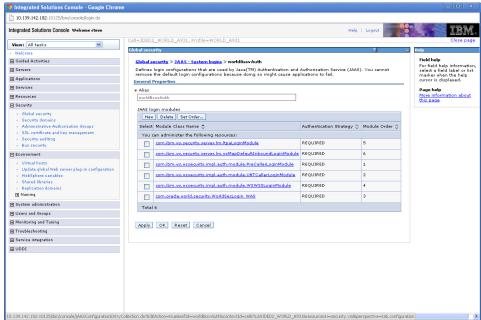


Figure 5-13 Global Security screen

- **10.** Enter "worldBssvAuth" for the Alias, and click New under JAAS login modules.
- 11. Enter "com.ibm.ws.wssecurity.impl.auth.module.PreCallerLoginModule" and click
- **12.** Click New under JAAS login modules to add the following modules:
 - com.ibm.ws.wssecurity.impl.auth.module.UNTCallerLoginModule
 - $com.oracle.world.security.WorldSecLogin_WAS$ (Check the Use login module proxy box when adding this class name)
 - com.ibm.ws.wssecurity.impl.auth.module.WSWSSLoginModule
 - com.ibm.ws.security.server.lm.ltpaLoginModule
 - com. ibm. ws. security. server. lm. ws Map Default Inbound Login Module
- 13. Click Save.

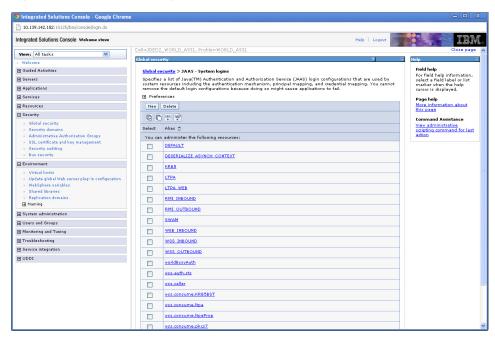
The worldBssvAuth system login should look like the screen shot below:

Figure 5-14 Global Security screen



14. From the System logins screen click New.

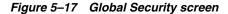
Figure 5-15 Global Security screen

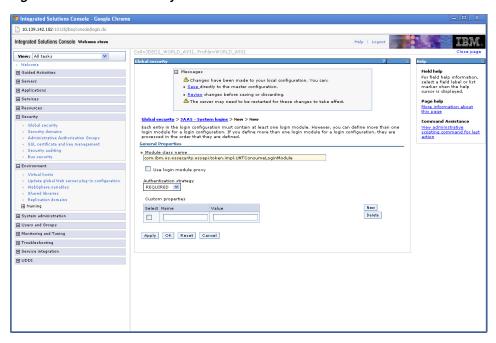


10.139.142.182:10125 integrated Solutions Console Welcome steve Global security > JAAS - System logins > New Servers
 Applications Defines login configurations that are used by Java(TM) Authentication and Authorization Service (JAAS). You cannot remove the default login configurations because doing so might cause applications to fail. General Properties ⊞ Resources ☐ Security Select Module Class Name 💸 Authentication Strategy 🗘 SSL certificate and key management Apply OK Reset Cancel System administration ⊞ Users and Groups ⊞ Monitoring and Tuning □ Troubleshooting Service integration ⊞ nooi

Figure 5-16 Global Security screen

15. Enter "worldBssvLogin" for the Alias and click New under JAAS login modules.



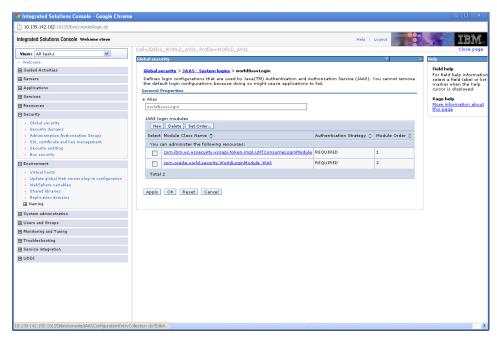


- 16. Enter "com.ibm.ws.wssecurity.wssapi.token.impl.UNTConsumeLoginModule" for the Module class name, and click OK.
- 17. Click New and enter "com.oracle.world.security.WorldLoginModule_WAS" for the Module class name.
- **18.** Click the **Use login module proxy** checkbox and click OK.

19. Click Save.

The worldBssvLogin system login should look like the screen shot below:

Figure 5-18 Global Security screen



5.6 Set Up Policies and Bindings

To set up policies and bindings

1. From the Integrated Solutions Console, select Services->Policy sets->Application policy sets.

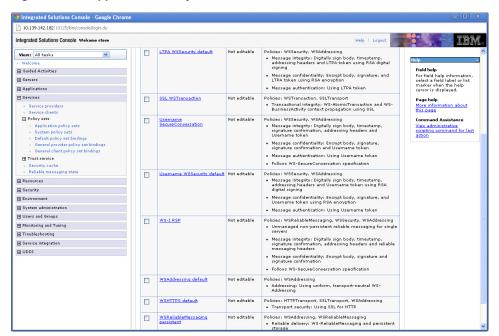
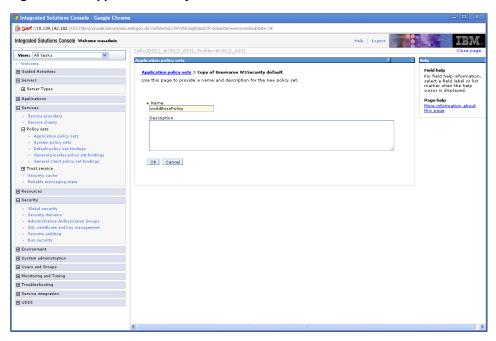


Figure 5-19 Application Policy Sets screen

Select the box next to **Username WSSecurity default** and click Copy.





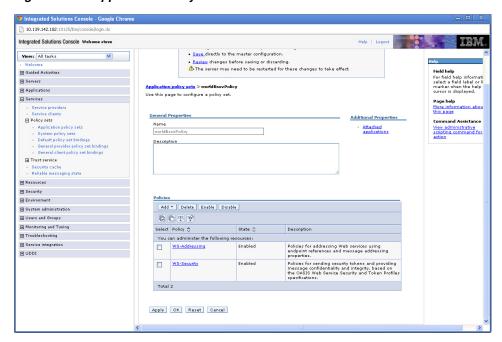
Enter "worldBssvPolicy" for the Name and click OK.

10.139.142.182:10125/i SSL WSTransaction Not editable Policies: WSTransaction, SSLTran Transactional integrity: WS-AtomicTransaction and WS-BusinessActivity context propagation using SSL Field help For field help information, select a field label or list marker when the help cursor is displayed. Guided Activities Not editable Policies: WSSecurity, WSAddressing Message integrity: Digitally sign body, timestamp, signature confirmation, addressing headers and Username token □ Services Page help More information about this page Message confidentiality: Encrypt body, signature, signature confirmation and Username token ☐ Policy sets Follows WS-SecureConversation specification Username WSSecurity default Not editable Message authentication: Using Username token Reliable messaging state Not editable Policies: WSReliableMessaging, WSSecurity, WSAddressing
Unmanaged non-persistent reliable messaging for single servers WS-1 RSP ⊞ Resources Security Message integrity: Digitally sign body, timestamp, signature confirmation, addressing headers and reliable messaging headers ⊕ Environment System administration Message confidentiality: Encrypt body, signature and signature confirmation ■ Users and Groups ■ Monitoring and Tuning ⊕ Troubleshooting WSAddressing default Service integration **⊞** UDDI WSHTTPS default WSReliableMessaging Addressing: Using uniform, transport-neutral WS-Addressing worldBssvPolice Editable Total 10

Figure 5-21 Application Policy Sets screen

4. Select worldBssvPolicy.

Figure 5–22 Application Policy Sets screen



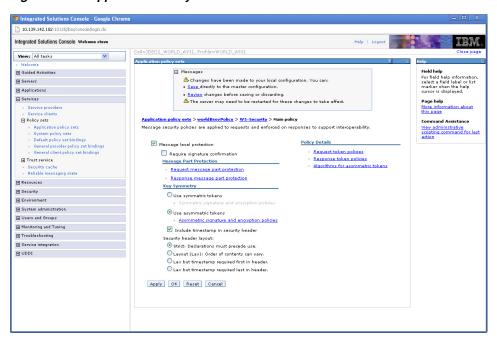
- Check the box next to **WS-Addressing** and click Delete.
- Click on WS-Security.

⊕ Guided Activities Review changes before saving or discarding.
 The server may need to be restarted for these changes to take effect. ☐ Services ication policy sets > worldBssvPolicy > WS-Security Message security policies are applied to requests and enforced on responses to support interoperability. - Main policy A bootstrap policy is not configured. To configure it, first ensure that you have enabled Message Security in the main policy with symmetric signature and encryption policies and secure conversation tokens for both integrity and confidentiality protection. Security cache
 Reliable messaging state ⊞ Resources ⊕ Environment System administration ■ Users and Groups → Troubleshooting Service integration ⊞ UDDI

Figure 5-23 Application Policy Sets screen

7. Click on Main policy.

Figure 5-24 Application Policy Sets screen



- Uncheck the box next to **Message level protection**.
- Click OK.
- **10.** Click Save.
- 11. On the left hand menu, select General provider policy set bindings.

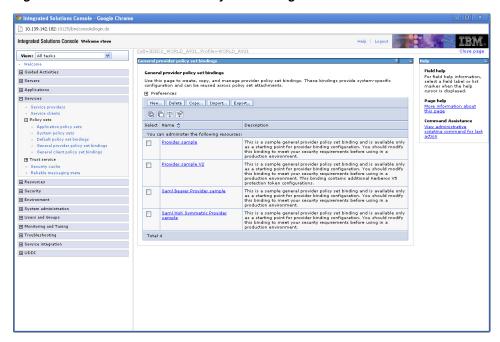
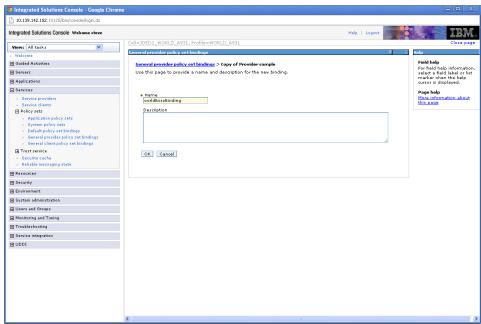


Figure 5-25 General Provider Policy Set Bindings screen

12. Check the box next to **Provider sample** and click Copy.





13. Enter "worldBssvBinding" in the Name field and click OK.

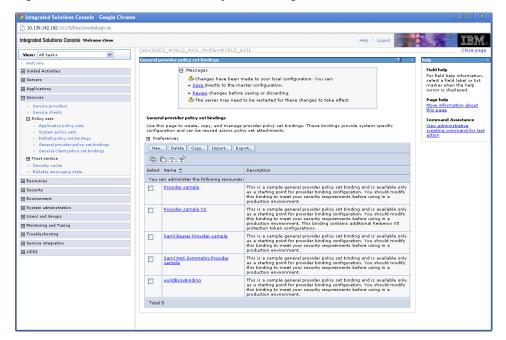
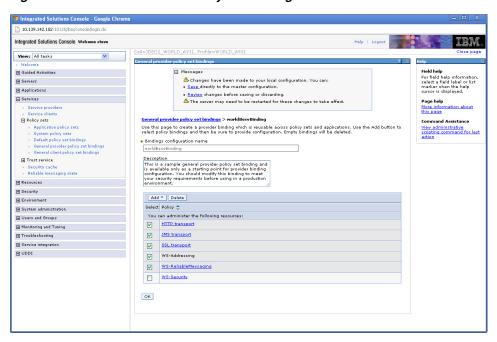


Figure 5-27 General Provider Policy Set Bindings screen

14. Select worldBssvBinding.

Figure 5–28 General Provider Policy Set Bindings screen



- **15.** Check all the boxes EXCEPT WS-Security and click Delete.
- 16. Click OK.
- **17.** Click Save.
- 18. Select worldBssvBinding->WS-Security->Authentication and protection.

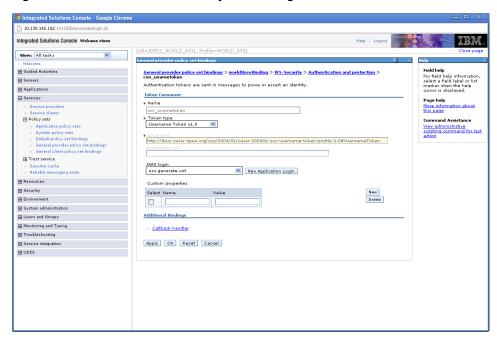
Integrated Solutions Console - Google Chrome Help | Logout View: All tasks

General provider policy set bindings
General provider policy set bindings Field help
For field help information, select a field label or list marker when the help cursor is displayed. ⊕ Guided Activities $\underline{\textit{General provider policy set bindings}} > \underline{\textit{worldBssvBinding}} > \underline{\textit{WS-Security}} > \textbf{Authentication and protection}$ ■ Services Page help More information about this page ☐ Policy sets Select Protection token name Select Protection token name
You can administer the following resources: son_sittoken
son_sittoken
son_sianx509token Symmetric consumer gen encc509token
gen esttoken Asymmetric signature consumer Security cache
 Reliable messaging state ⊞ Resources Symmetric generator Security gen_signx509token Asymmetric signature generator ⊕ Environment Total 6 System administration □ Users and Groups ■ Monitoring and Tuning Select Authentication token name
You can administer the following resources: Troubleshooting Usage Service integration **⊞** UDDI con_krb5token con_ltpaproptoken Inbound con Itpatoken con unametoken Inbound Total 4 equest message signature and encryption protection New Signature... | New Encryption... | Delete |

Figure 5-29 General Provider Policy Set Bindings screen

19. Under Authentication tokens select con_unametoken.





20. Select Callback handler.

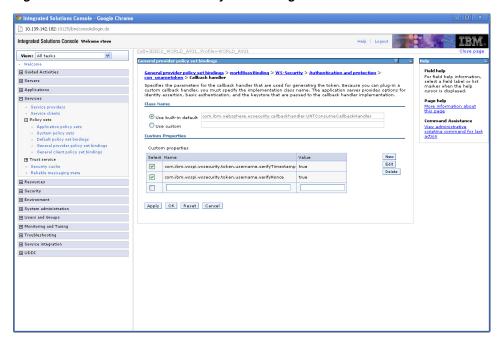
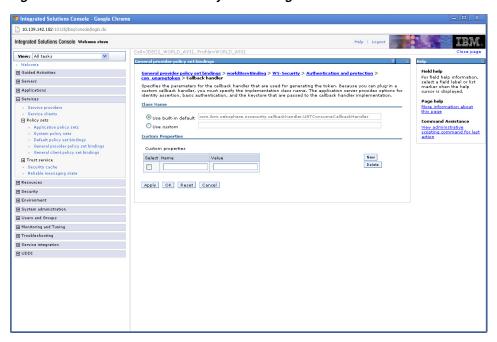


Figure 5-31 General Provider Policy Set Bindings screen

21. Check the boxes next to the two **Custom properties** and click Delete.

Figure 5–32 General Provider Policy Set Bindings screen



- **22.** Under Custom properties, enter" com.ibm.wsspi.wssecurity.token.UsernameToken.authDeferred" in the Name field.
- 23. Enter "true" in the Value field.
- 24. Click OK.

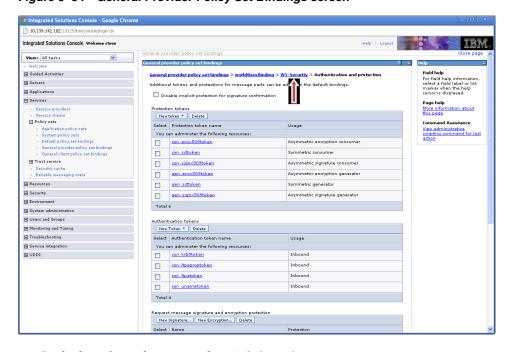
Integrated Solutions Console Welcome steve Guided Activities ☐ Messages E Servers • Review changes before saving or discarding ☐ Services ⚠ The server may need to be restarted for these changes to take effect Authentication tokens are sent in messages to prove or assert an identity. Name con_unametoken Username Token v1.0 Resources ⊞ Environment System administration JAAS login
world8ssvLogin

Mew Application Login ⊞ Monitoring and Tuning Custom properties □ Troubleshooting Service integration ⊞ UDDI Additional Bindings Apply OK Reset Cancel

Figure 5-33 General Provider Policy Set Bindings screen

- 25. In the JAAS login dropdown box, select worldBssvLogin.
- **26.** Click OK.
- 27. Click Save.

Figure 5-34 General Provider Policy Set Bindings screen



28. In the breadcrumb menu, select **WS-Security**.

10.139.142.182:10125/0 Help | Logout View: All tasks

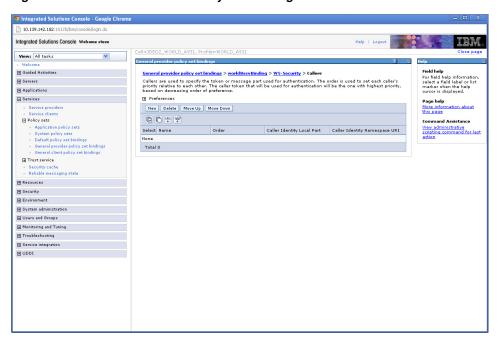
Cell=JDED2_WORLD_A931, Profile=W

General provider policy set bindings Field help For field help information, select a field label or list marker when the help cursor is displayed. Guided Activities Folio the links for bindings associated with message security policies, **suthentication and protection** allows you to manage the tokens used for signature, encryption, or authentication, the signing information and encryption information. **Keys and certificates** allows you to manage the key information used for signature and encryption, but stores and certificate stores; **Caller**, when available, allows you to manage the caller identity token. **Actor roles**, when available, allows you to define the actor or lock lift, which it bypically used in intermediaty creation. □ Services Services available, allows you to define the actor Main Nessage Security Bolicy Bridges
- Service clients | Delicy sets | Application policy sets | Oytem policy set | Caller | Oracle policy set | Oracle po ☐ Policy sets Security cache
 Reliable messaging state ⊞ Resources **⊞** Security ⊕ Environment System administration ■ Users and Groups ⊞ Monitoring and Tuning → Troubleshooting Service integration ⊞ UDDI

Figure 5-35 General Provider Policy Set Bindings screen

29. Select Caller.

Figure 5–36 General Provider Policy Set Bindings screen



30. Click New.

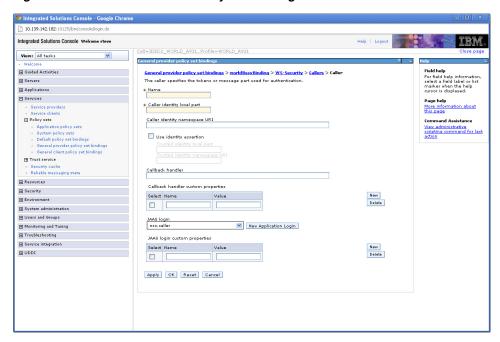


Figure 5-37 General Provider Policy Set Bindings screen

- **31.** Enter "worldBssvCaller" in the Name field.
- 32. Enter "http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-pro file-1.0#UsernameToken" in the Caller identity local part field.
- **33.** In the JAAS login dropdown, select worldBssvAuth.

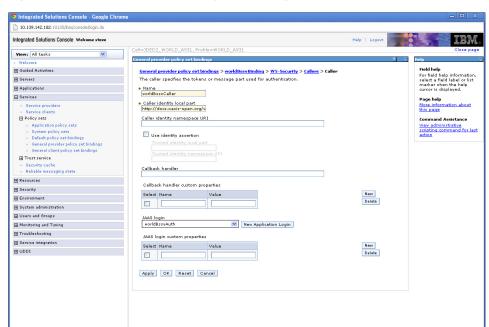


Figure 5–38 General Provider Policy Set Bindings screen

- **34.** Click OK.
- 35. Click Save.

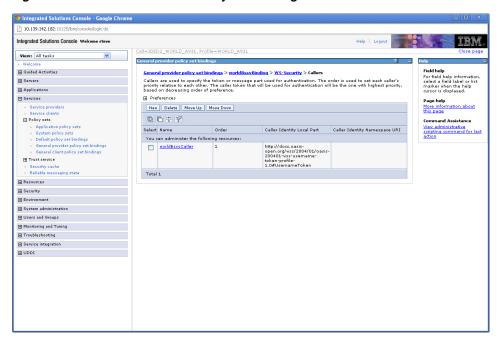


Figure 5–39 General Provider Poliicy Set Bindings screen

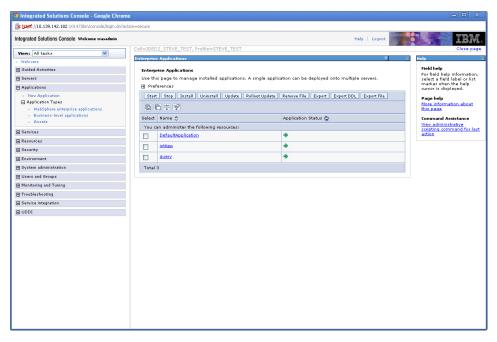
36. Restart the server.

5.7 Deploy Services

To deploy services

1. From the Integrated Solutions Console, select Applications->Application Types->WebSphere enterprise applications.

Figure 5-40 Enterprise Applications screen



2. Click Install.

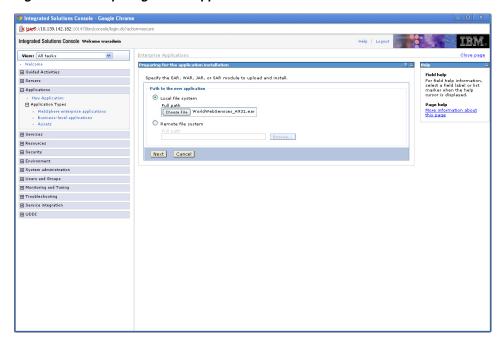


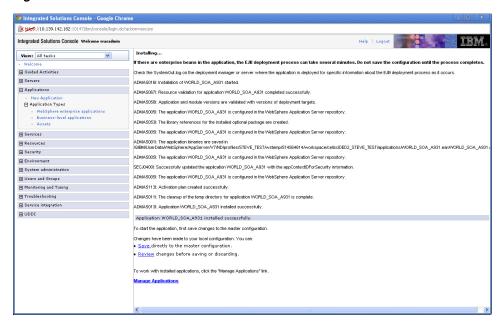
Figure 5-41 Preparing for the Application Installation screen

- Click Choose File, navigate to folder where the .ear file was downloaded, and select the WorldWebServices_A931.ear file.
- On the **Preparing for the application installation** screen, click Next.
- On the **Select installation options** screen, click Next.
- On the **Map modules to servers** screen, click Next.
- On the Map virtual hosts for Web modules screen, click Next. 7.
- On the **Summary** screen, click Finish.

The following screen should be displayed:

Note: This can take several minutes.

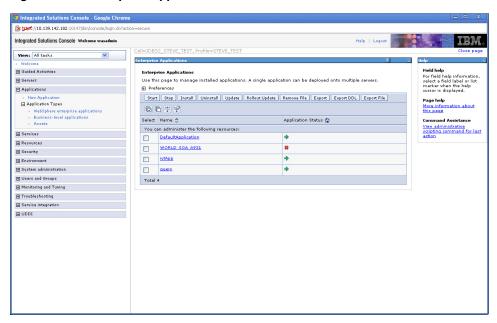
Figure 5-42 Intallation screen



9. Click Save.

Note: This can take several minutes.

Figure 5-43 Enterprise Applications screen



10. Click WORLD_SOA_A931.

Help | Logout Enterprise Applications ☐ Guided Activities Use this page to configure an enterprise application. Click the links to access pages for further configuring of the application or its modules. ☐ Applications Configuration General Properties * Name
WORLD_SOA_A931 Metadata for modules
 Manage Modules **⊕** Services ■ Resources Application reference validation

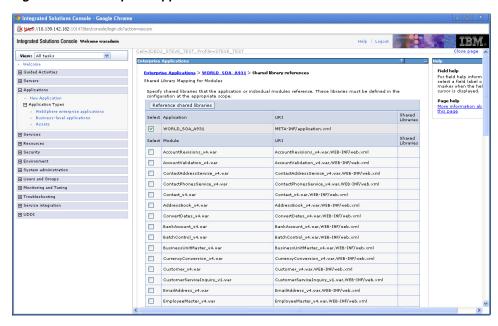
Issue varnings

Web Module Properties Security Environment Detail Properties System administration ● Users and Groups ■ Monitoring and Tuning □ Troubleshooting - Default messaging provider references ■ Service integration **⊞** UDDI Service providers
 Service provider policy sets and bindings Reliable messaging state
 Provide JMS and EJB endpoint URL information
 Publish WSDL files
 Provide HTTP endpoint URL information Shared library references
 Shared library relationships Apply OK Reset Cancel Database Profiles SQLI profiles and pureQuery bind files

Figure 5-44 Enterprise Applications screen

11. Click Shared library references.

Figure 5-45 Enterprise Applications screen



12. Check **WORLD_SOA_A931**, and click **Reference shared libraries**.

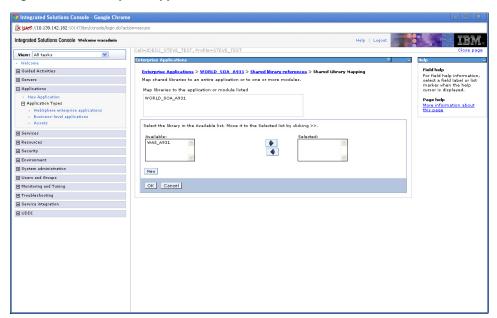
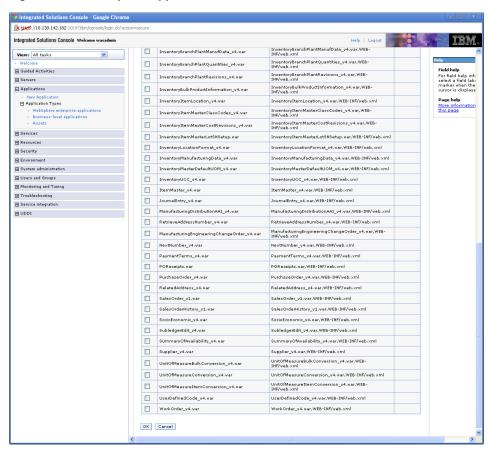


Figure 5-46 Enterprise Applications screen

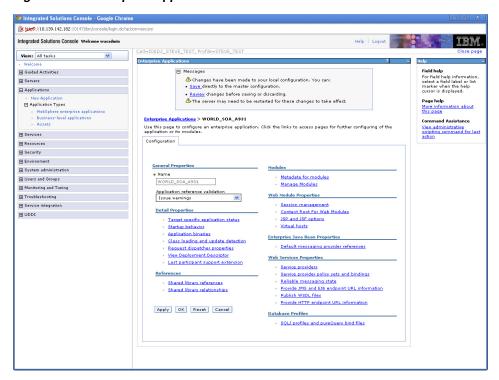
- 13. In the Available box, select WAS_A931, and click the arrow key to move the library to the Selected box.
- **14.** Click OK.

Figure 5-47 Enterprise Applications screen



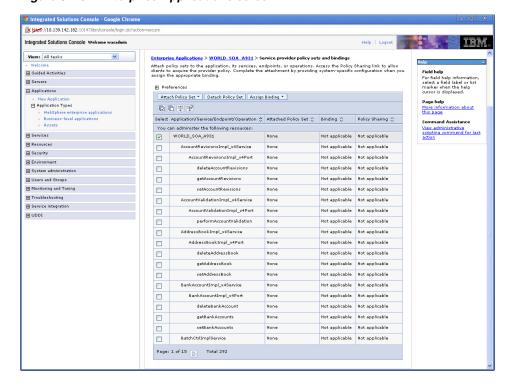
15. Click OK.

Figure 5-48 Enterprise Applications screen



16. Click Service provider policy sets and bindings.

Figure 5-49 Enterprise Applications screen

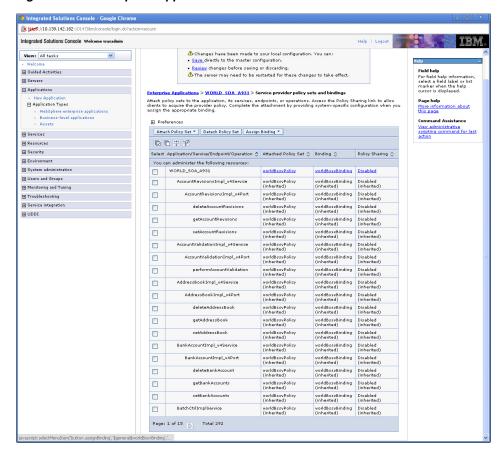


17. Check the box next to WORLD_SOA_A931, and click Attach Policy Set->worldBssvPolicy.

Note: This can take several minutes.

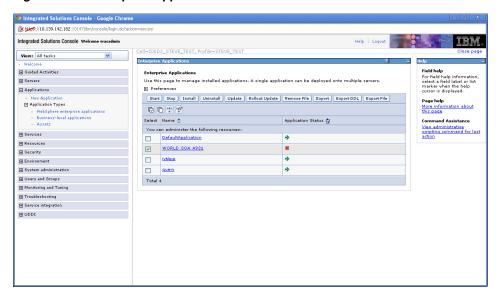
18. Check the box next to WORLD_SOA_A931, and click Assign Binding->worldBssvBinding.

Figure 5-50 Enterprise Applications screen



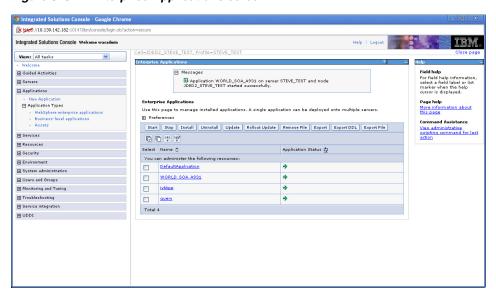
- 19. Click Save.
- **20.** On the left hand menu, select **WebSphere enterprise applications**.

Figure 5-51 Enterprise Applications screen



21. Check the box next to WORLD_SOA_A931 and click Start.

Figure 5-52 Enterprise Applications screen



Install WebLogic Application Server

This appendix contains the topic:

Section A, "Install WebLogic Application Server."

A.1 Installing the WebLogic Application Server

To install the WebLogic Application Server

1. Download Required Jars:

jt400.jar - retrieve from: http://jt400.sourceforge.net/

log4j - for details about the latest version supported for log4j, see Doc ID 2318897.1 in My Oracle Support. Use the following URL to access and sign in to My Oracle Support:

https://support.oracle.com

(WS: Instructions to Address JD Edwards World Security Vulnerabilities (Doc ID 2318897.1) (Release A9.3 Update)

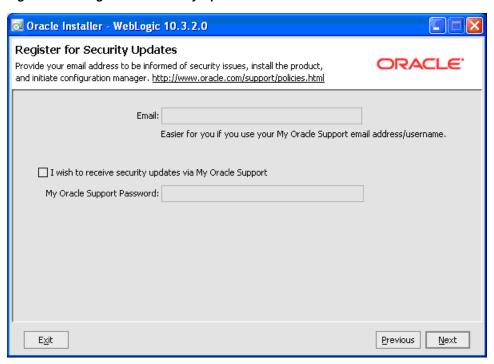
WebLogic Installation Instructions

1. Download the WLS server installation file from OTN and install. Use the default values.

🔯 Oracle Installer - WebLogic 10.3.2.0 Choose Middleware Home Directory ORACLE' Specify the Middleware Home where you wish to install WebLogic 10.3.2.0. Middleware Home Type Create a new Middleware Home Middleware Home Directory C:\Oracle\Middleware Browse... Reset E<u>x</u>it Previous <u>N</u>ext

Figure A-1 Choose Middleware Home Directory screen

Figure A-2 Register for Security Updates screen



3. Click Next.

Figure A-3 Specify Download Options screen

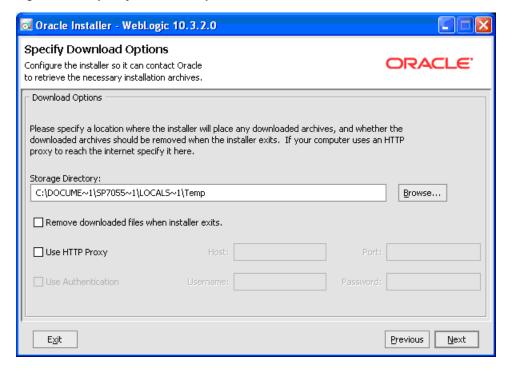
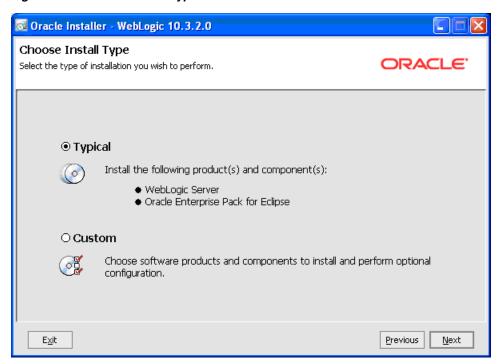


Figure A-4 Choose Install Type screen



5. Select Typical and then click Next.

Figure A-5 Archive Download screen

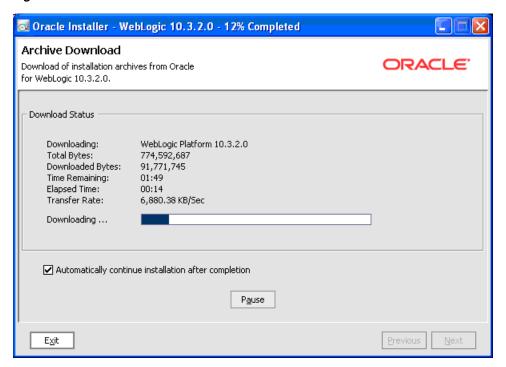
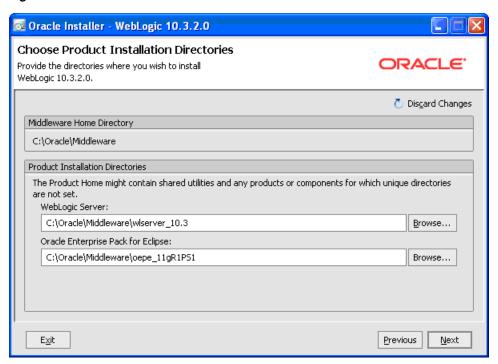


Figure A-6 Choose Product Installation Directories screen



7. Click Next.

Figure A-7 Choose Shortcut Location screen

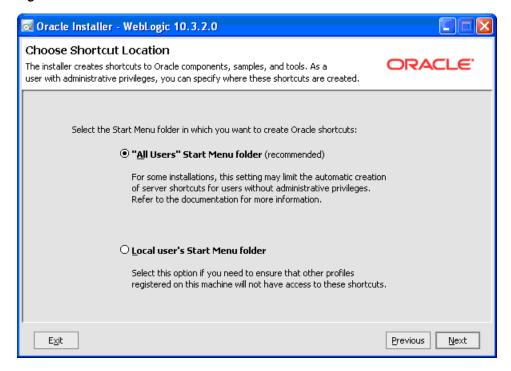
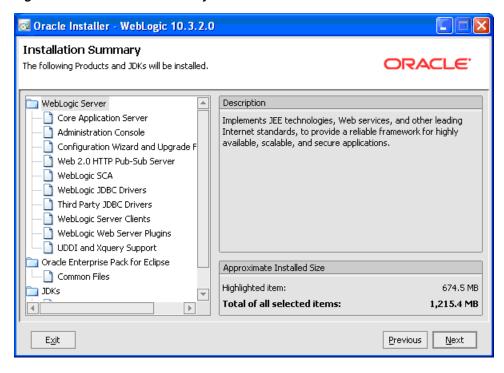
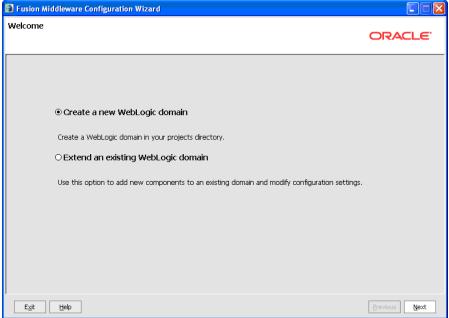


Figure A-8 Installation Summary screen



9. Configure the base_domain.

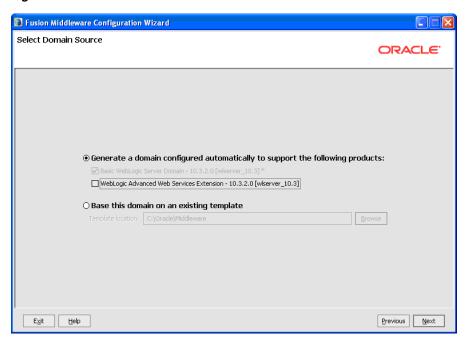
Figure A-9 Create a New WebLogic Domain screen



Start > Programs > Oracle Fusion Middleware 11.1.1.2.0 > WebnLogic Server 11gR1 > Tools > Configuration Wizard

Click Next.

Figure A-10 Select a Domain Source screen

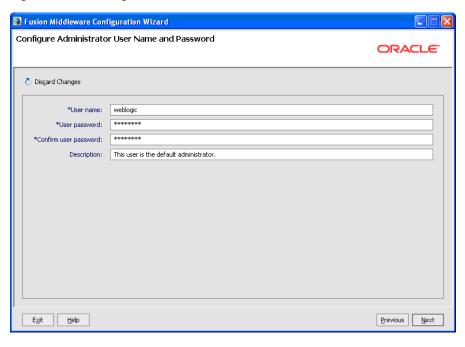


10. Click Next.

Tusion Middleware Configuration Wizard Specify Domain Name and Location ORACLE Enter the name and location for the domain: Domain name: base_domain Domain location: C:\Oracle\Middleware\user_projects\domains Browse E<u>x</u>it <u>H</u>elp Previous Next

Figure A-11 Specify Domain Name and Location screen

Figure A-12 Configure Administrator User Name and Password screen



User Password:

"welcome1"

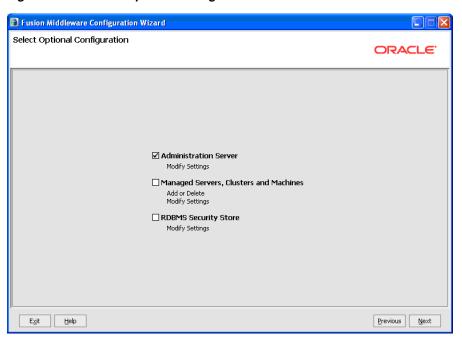
12. Click Next.

📵 Fusion Middleware Configuration Wizard Configure Server Start Mode and JDK ORACLE. Before putting your domain into production, make sure that the production environment is secure. For more information, see the topic 'Securing a Production Environment' in the WebLogic Server documentation To use WebLogic JRockit in production, Oracle recommends developing and testing your applications with WebLogic JRockit early in the project cycle. For information about WebLogic JRockit, see the WebLogic JRockit documentation WebLogic Domain Startup Mode JDK Selection Development Mode Sun SDK 1.6.0_14 @ C:\Oracle\Middleware\jdk160_14_R27 Utilize boot properties for username and password and poll for applications to deploy. Sun JDK recommended for better startup JRockit SDK 1.6.0_14 @ C:\Oracle\Middleware\jrockit_160_ performance during iterative development. O Production Mode Require the entry of a username and password and do not poll for applications to deploy.

WebLogic JRockit JDK recommended for better runtime performance and management. Other JDK Location: Exit <u>H</u>elp Previous Next

Figure A-13 Configure Server Start Mode JDK screen

Figure A-14 Select Optional Configuration screen



Select:

Administration Server

Click Next.

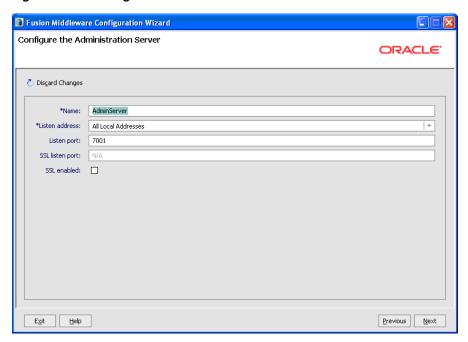
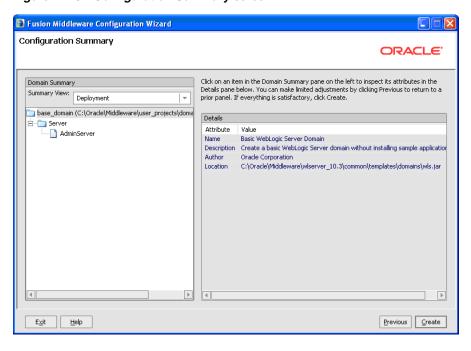


Figure A-15 Configure the Administrator Server screen

14. Use defaults and click Next.

Figure A-16 Configuration Summary screen



15. Click Create.

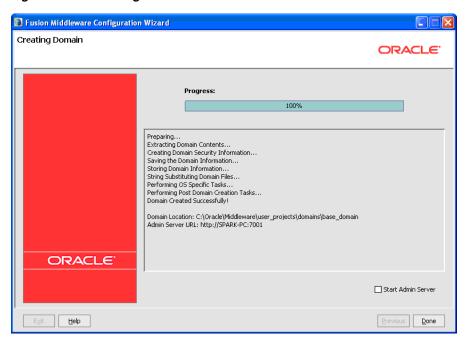


Figure A-17 Creating Domain screen

16. Copy jt400.jar, JDEWorldJDBC.jar, log4j jar, and BaseJar.jar to WebLogic server library.

(WLS_Home\Middleware\user_projects\domains\base_domain\lib

The JDEWorldJDBC.jar and the BaseJar.jar are included in the Web Services .zip file downloaded from the MyOracleSupport website.

For details about the latest version supported for log4j, see Doc ID 2318897.1 in My Oracle Support. (WS: Instructions to Address JD Edwards World Security Vulnerabilities (Doc ID 2318897.1) (Release A9.3 Update)

17. Install the custom security authenticator into WebLogic server environment.

Copy the MJF (e.g. WorldAuthenticator.jar) to

<WL_HOME>/server/lib/mbeantypes.

The WorldAuthenticator.jar file is included in the Web Services .zip file downloaded from the MyOracleSupport website.

Create WebSphere Application Server

This appendix contains the topic:

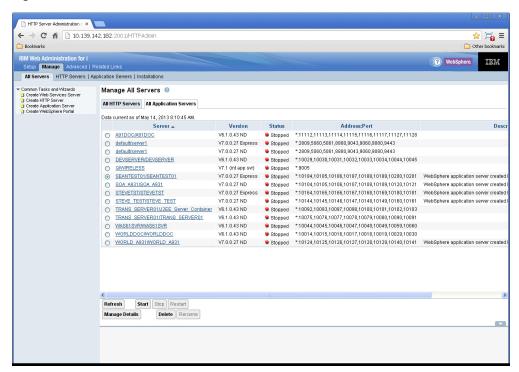
Section B.1, "Creating the WebSphere Application Server."

B.1 Creating the WebSphere Application Server

To create Application Servers in WebSphere

Launch the IBM Web Administrator for i: http://localhost:2001/HTTPAdmin.

Figure B-1 IBM Web Administrator screen



Click Create Application Server.

Figure B-2 Create Application Server screen

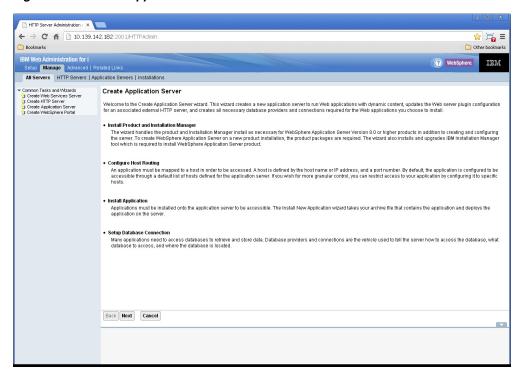
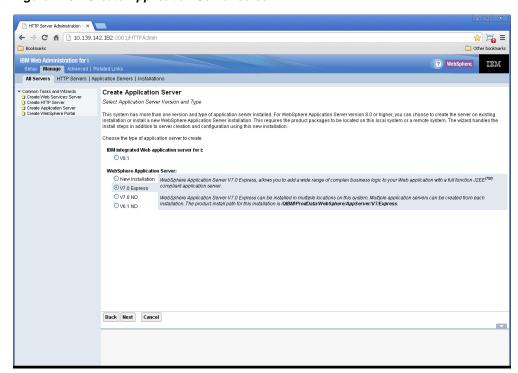


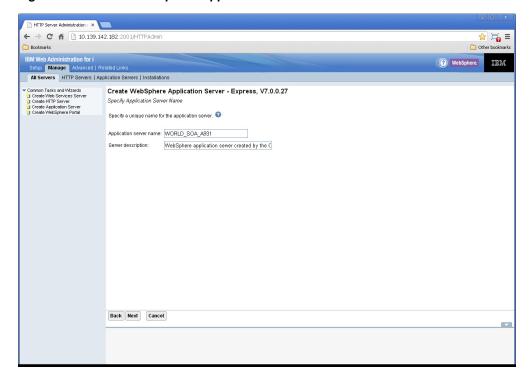
Figure B-3 Create Application Server screen



4. Select the desired WebSphere Application Server version, and Click Next.

Note: Please refer to the certification information on myoraclesupport.com to determine the certified versions of WebSphere.





Enter Application Server Name and Description and then click Next.

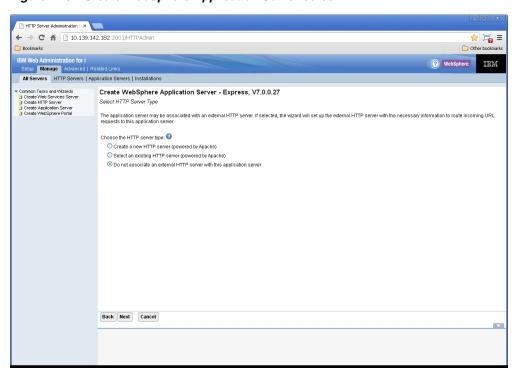
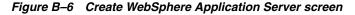
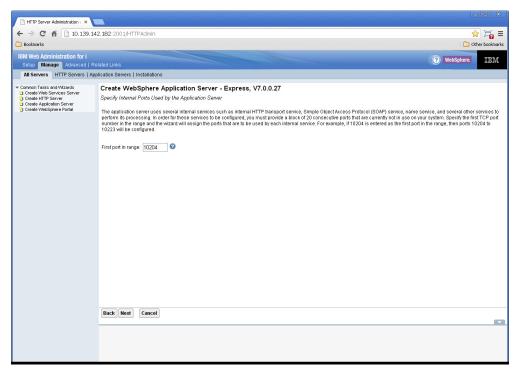


Figure B-5 Create WebSphere Application Server screen

Select Donot associate an external HTTP server with this application server and then click Next.





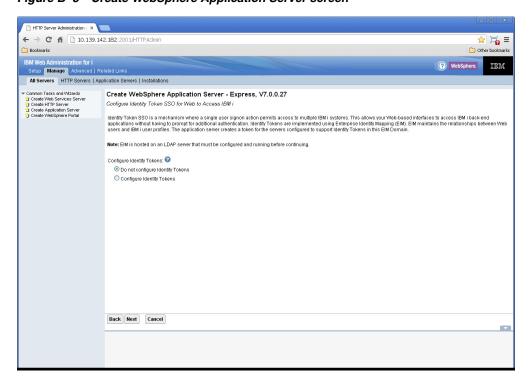
7. Click Next.

☐ HTTP Server Administration ∈ × \leftarrow \Rightarrow \mathbf{C} \upphi \upphi 10.139.142.182:2001/HTTPAdmin (?) WebSphere. All Servers | HTTP Servers | Application Servers | Installations Create WebSphere Application Server - Express, V7.0.0.27 Select Sample Applications You may optionally install sample applications into this application server. Choose the applications you want to install and the wizard will deploy them for you Select which sample applications to install: 🗸 Query - Provides dynamic query service for EJB client applications. This service is accessible only to applications using EJB query language, not Web browsers Default Applications - A set of samples, including SnoopServlet, that may be used to verify your application server is working. Back Next Cancel

Figure B-7 Create WebSphere Application Server screen

8. Click Next.

Figure B-8 Create WebSphere Application Server screen



9. Click Next.

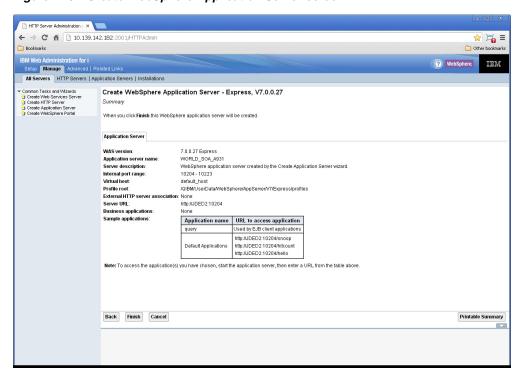


Figure B-9 Create WebSphere Application Server screen

10. Click Finish.

Code and Deploy Your Own Web Services

This appendix contains these topics:

- Section C.1, "Coding and Deploying Your Own Web Services,"
- Section C.2, "Deployment Profiles."

C.1 Coding and Deploying Your Own Web Services

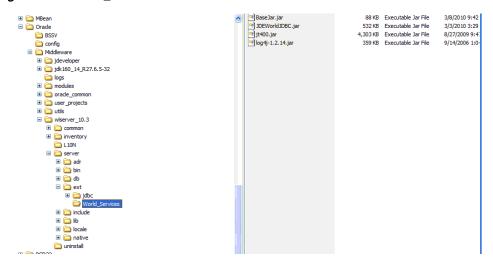
To code and delpoy your own Web Services

- Use the WebServiceBase_v4 and WebServiceBaseImpl_v4 classes to create custom web services.
- Both classes exist in the BaseJar.jar file.
- Extending one of the base classes (WebServiceBase_v4 and WebServiceBaseImpl_ v4) gives you an RPGInvoke and Connection.
- Use the RPGInvoke to call an RPG program on the JDEdwards World system.
- Use the Connection to access the JDEdwards World database.
- Extend WebServiceBase_v4 when creating services that only require executing a JD Edwards World program.
- Extend WebServiceBaseImpl_v4 when creating a web service that requires database access.
- Refer to the source zip file for examples on how to create web services using the BaseJar.jar file.

C.2 Deployment Profiles

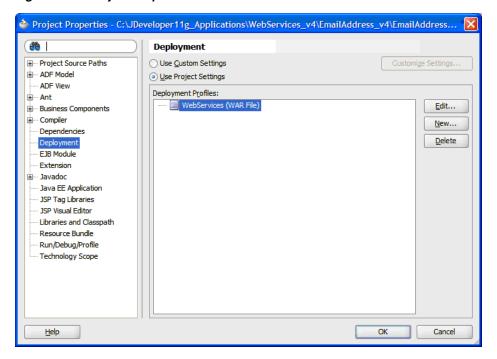
The jar files required for the Web Services were configured in the previous procedure by adding the jar files to the World_Services folder and setting the server classpath to include these jars.

Figure C-1 World Services Folder



In Jdeveloper, the individual projects only need to deploy those files that are required by the web service.

Figure C-2 Project Properties screen



Highlight WebServices(WAR File) and then click Edit.

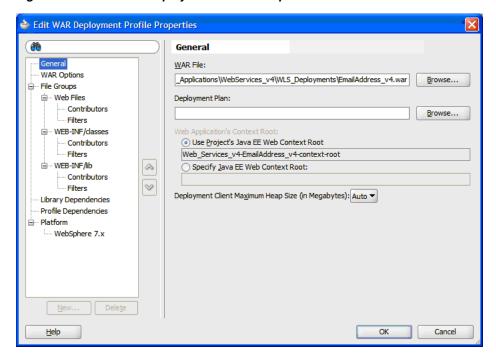
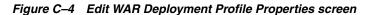
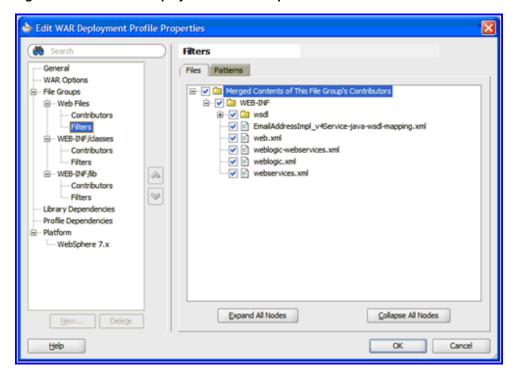


Figure C-3 Edit WAR Deployment Profile Properties screen

Enter a path where you want your WAR file created.





Under Web Files > Filters, select all files.

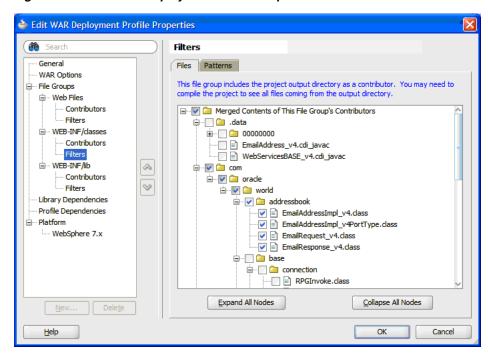


Figure C-5 Edit WAR Deployment Profile Properties screen

Under WEB-INF/classes, only select the files specific to this service. The files under base are included in the BaseJar.jar, so they do not need to be included here.

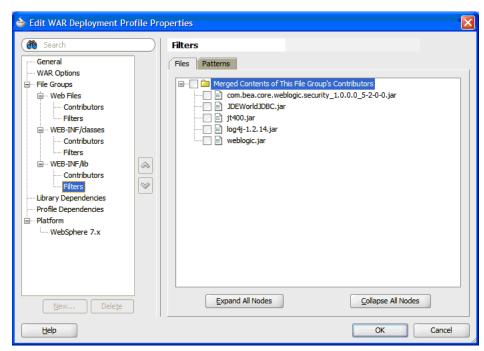


Figure C-6 Edit WAR Deployment Profile Properties screen

Under WEB-INF/lib no classes should be selected, these jars are either part of the WLS install or were included in the server classpath in the installation instructions above.

Uninstall Service Enablement

This appendix contains the topic:

Section D.1, "Uninstalling Service Enablement."

D.1 Uninstalling Service Enablement

To uninstall Service Enablement

If you need to uninstall JD Edwards World Service Enablement, use the OUI installer.

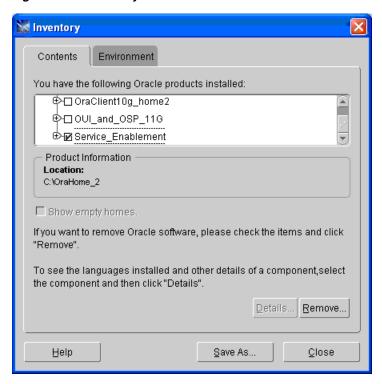
Figure D-1 OUI Installer Welcome screen



Start the OUI installer:

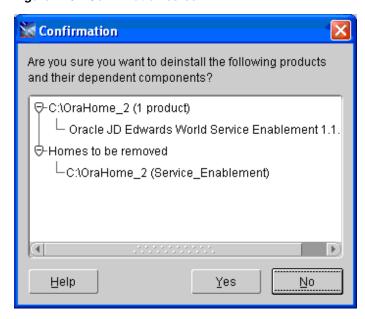
Run Disk1\oui\bin\setup.exe and click Deinstall Products on the Welcome screen.

Figure D-2 Inventory screen



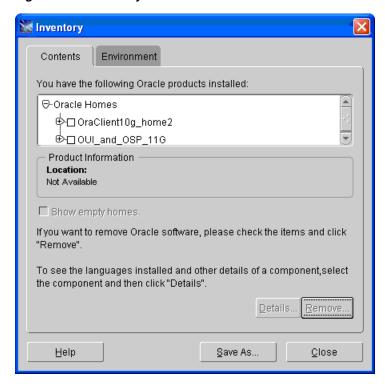
Select the checkbox of the Service Enablement folder name you created and then click Remove.

Figure D-3 Confirmation screen



3. On the Confirmation screen, click Yes.

Figure D-4 Inventory screen



4. On the Inventory screen, click Close.

Figure D-5 End of Installation screen



5. On the End of Installation screen, click Exit.

Figure D-6 Exit screen



6. On the Exit screen, click Yes.