ORACLE®

JD EDWARDS WORLD

JD Edwards World

Service Enablement Installation and Configuration Guide

Version A9.2 and A9.2.1

Revised – October 27, 2010

Copyright Notice

Trademark Notice

License Restrictions Warranty/Consequential Damages Disclaimer

Subject to patent protection under one or more of the following U.S. patents: 5,781,908; 5,828,376; 5,950,010; 5,960,204; 5,987,497; 5,995,972; 5,987,497; and 6,223,345. Other patents pending.

Warranty Disclaimer

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.

Restricted Rights Notice

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

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

Hazardous Applications Notice

This software 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 which may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

Third Party Content, Products, and Services Disclaimer

This software and documentation may provide access to or information on 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. 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.

Open Source Disclosure

Oracle takes no responsibility for its use or distribution of any open source or shareware software or documentation and disclaims any and all liability or damages resulting from use of said software or documentation. The following open source software may be used in Oracle's JD Edwards World products and the following disclaimers are provided.

Table of Contents

Overview

Thank you for ordering JD Edwards World A9.2.1 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. The JD Edwards World Service Enablement User Guide has 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.

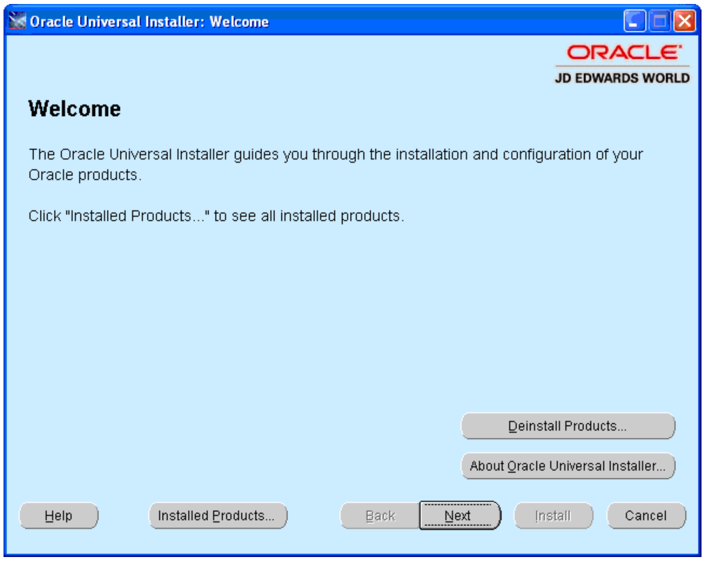
Install Service Enablement

To install Service Enablement

1. Download and unzip the service enablement archive file.

Start the Oracle Universal Installer (OUI).

Run Disk1\oui\bin\setup.exe from your extract to location.



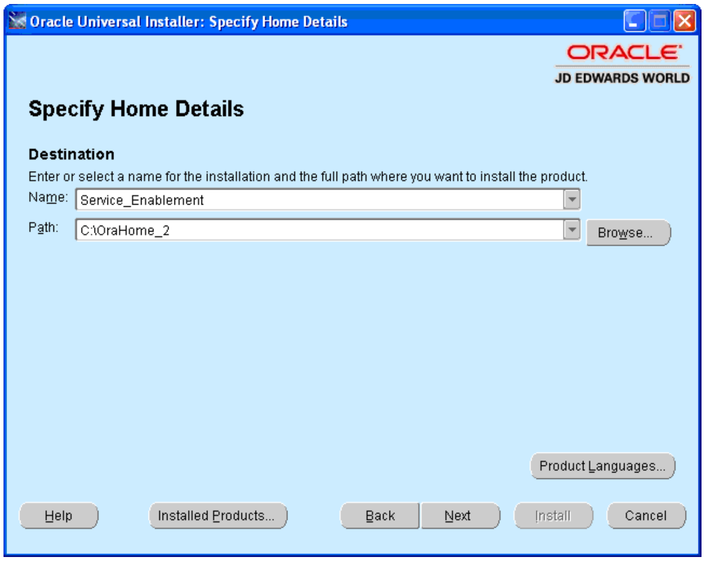
Oracle Universal Installer: Welcome

Welcome

The Oracle Universal Installer guides you through the installation and configuration of your Oracle products.

Click "Installed Products..." to see all installed products.

2. On the Welcome screen, click Next.



Oracle Universal Installer: Specify Home Details

Specify Home Details

Destination

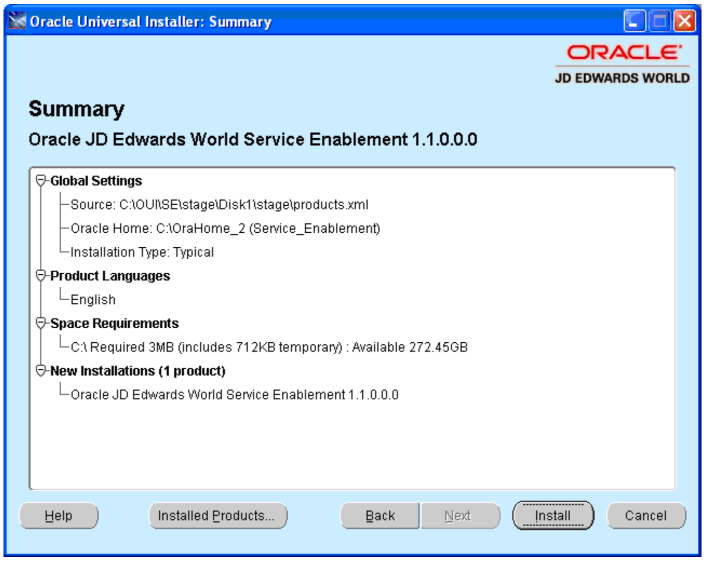
Enter or select a name for the installation and the full path where you want to install the product.

Name: Service_Enablement

Path: C:\OraHome_2

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.



Oracle Universal Installer: Summary

ORACLE JD EDWARDS WORLD

Summary

Oracle JD Edwards World Service Enablement 1.1.0.0.0

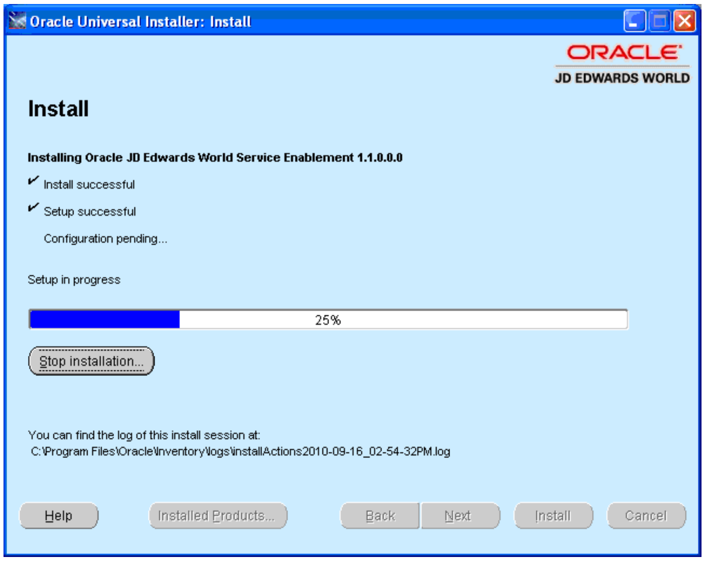
Global Settings
- Source: C:\OUI\SE\stage\Disk1\stage\products.xml
- Oracle Home: C:\OraHome_2 (Service_Enablement)
- Installation Type: Typical

Product Languages
- English

Space Requirements
- C:\ Required 3MB (includes 712KB temporary) : Available 272.45GB

New Installations (1 product)
- Oracle JD Edwards World Service Enablement 1.1.0.0.0

4. On the Summary screen, click Install.



Oracle Universal Installer: Install

ORACLE JD EDWARDS WORLD

Install

Installing Oracle JD Edwards World Service Enablement 1.1.0.0.0

✓ Install successful

✓ Setup successful

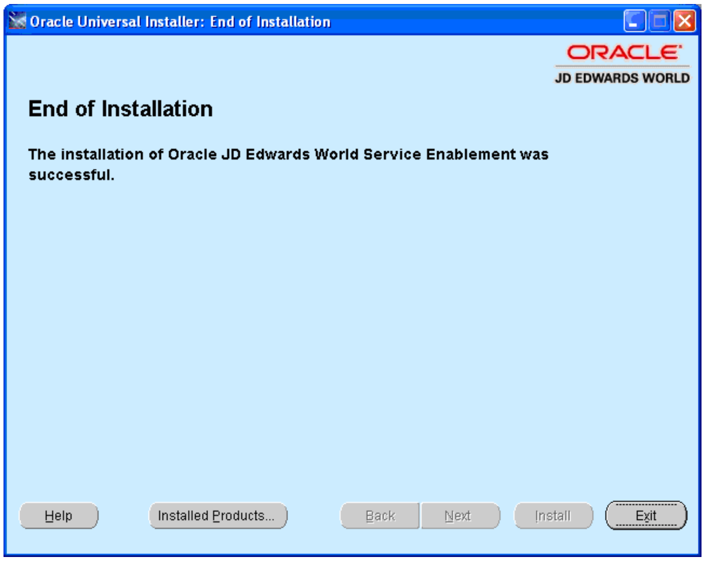
Configuration pending...

Setup in progress

25%

You can find the log of this install session at:
C:\Program Files\Oracle\Inventory\logs\installActions2010-09-16_02-54-32PM.log

The Install screen displays the Setup in progress.

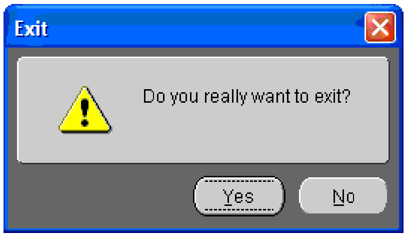


Oracle Universal Installer: End of Installation

End of Installation

The installation of Oracle JD Edwards World Service Enablement was successful.

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



Exit

Do you really want to exit?

6. On the Exit screen, click Yes.

Deploy and Configure Web Services

You must deploy the World Web Service EAR file to an Oracle WebLogic or IBM WebSphere application server. For more information about release requirements, see the *JD Edwards World Minimum Technical Requirements versions A9.2 and A9.2.1*. All necessary Java security setup occurs after deployment. This guide contains specific deployment and security setup instructions for both application servers. Make sure you have installed and configured the application server before deploying the EAR file.

WebLogic Application Server

Before you begin

You need to configure an appropriate WebLogic Application Server using the procedure in *Appendix A – Install WebLogic Application Server* in this guide.

To configure the WebLogic Application Server

1. Start the WebLogic Admin Server:

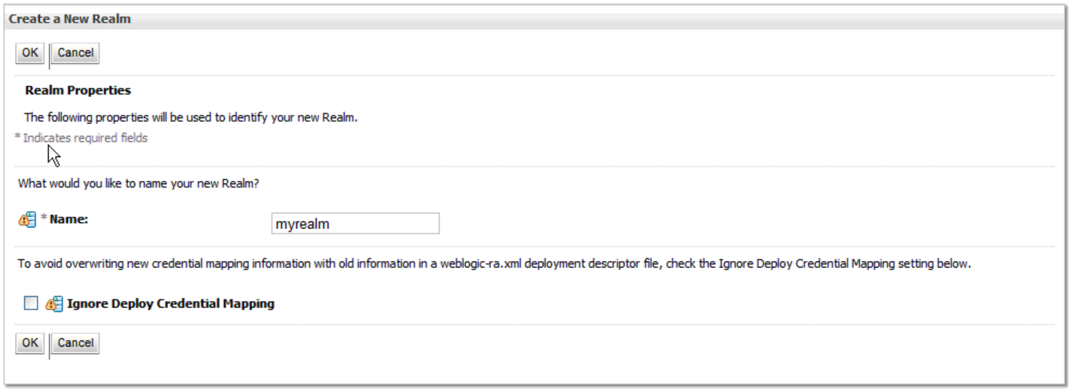
%SystemRoot%\system32\cmd.exe /k"C:\Oracle\Middleware\user_projects\domains\base_domain\bin\startWebLogic.cmd"

2. Launch the application server console:

http://localhost:7001/console

3. From WebLogic console select Security Realms to create a Security Realm.

Click New.



Realm Properties

The following properties will be used to identify your new Realm.

* Indicates required fields

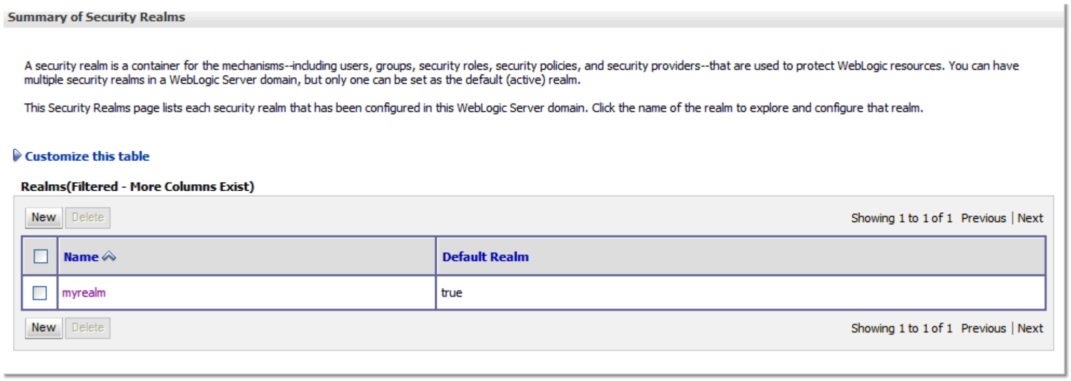
What would you like to name your new Realm?

* Name: myrealm

To avoid overwriting new credential mapping information with old information in a weblogic-ra.xml deployment descriptor file, check the Ignore Deploy Credential Mapping setting below.

□ Ignore Deploy Credential Mapping

4. Enter a Realm Name and then click OK.



Summary of Security Realms

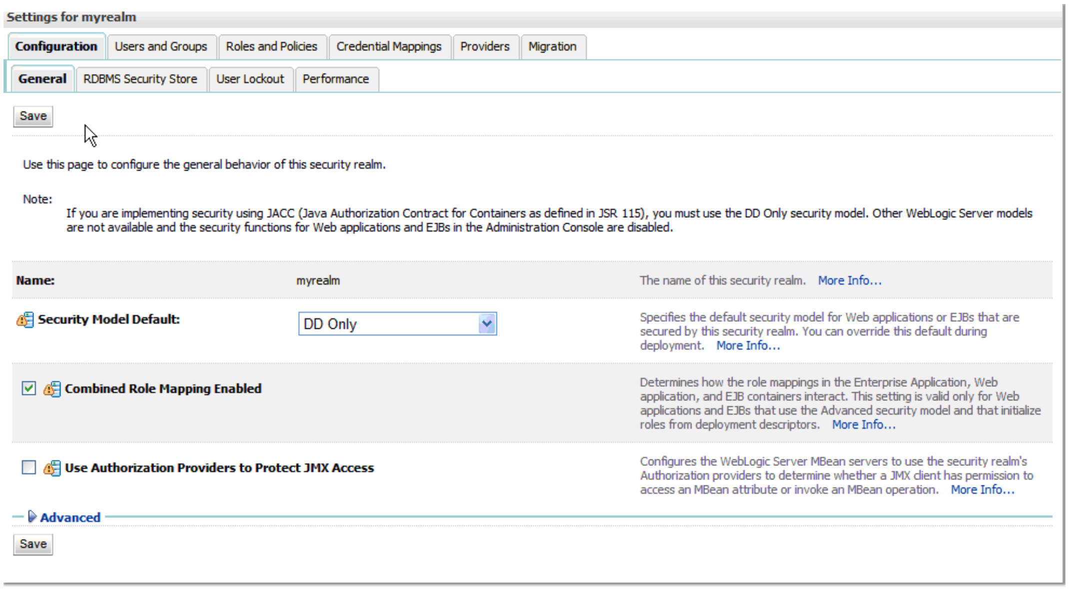
A security realm is a container for the mechanisms--including users, groups, security roles, security policies, and security providers--that are used to protect WebLogic resources. You can have multiple security realms in a WebLogic Server domain, but only one can be set as the default (active) realm.

This Security Realms page lists each security realm that has been configured in this WebLogic Server domain. Click the name of the realm to explore and configure that realm.

Realms(Filtered - More Columns Exist)

□	Name	Default Realm
□	myrealm	true

5. Click New to create a realm.



Settings for myrealm

Use this page to configure the general behavior of this security realm.

Note:
If you are implementing security using JACC (Java Authorization Contract for Containers as defined in JSR 115), you must use the DD Only security model. Other WebLogic Server models are not available and the security functions for Web applications and EJBs in the Administration Console are disabled.

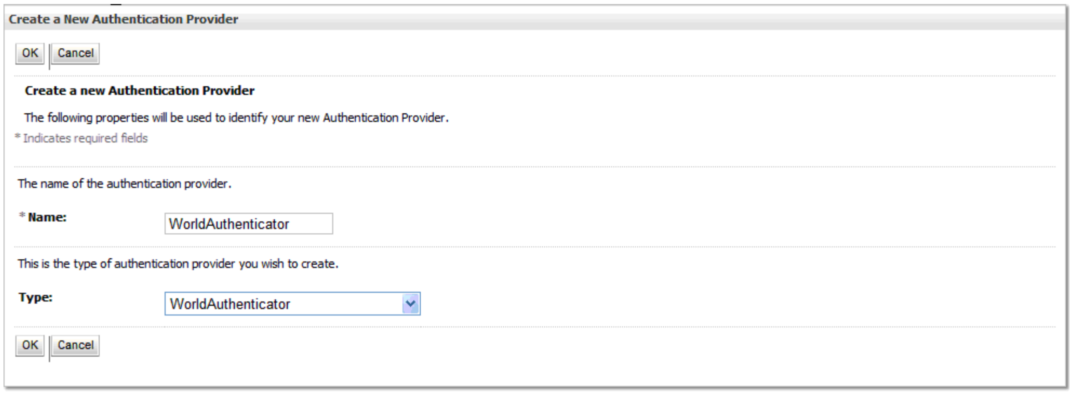
Name: myrealm — The name of this security realm. More Info...

Security Model Default: DD Only — Specifies the default security model for Web applications or EJBs that are secured by this security realm. You can override this default during deployment. More Info...

☑ Combined Role Mapping Enabled — Determines how the role mappings in the Enterprise Application, Web application, and EJB containers interact. This setting is valid only for Web applications and EJBs that use the Advanced security model and that initialize roles from deployment descriptors. More Info...

□ Use Authorization Providers to Protect JMX Access — Configures the WebLogic Server MBean servers to use the security realm's Authorization providers to determine whether a JMX client has permission to access an MBean attribute or invoke an MBean operation. More Info...

6. Select the Providers tab and then click New.



Create a New Authentication Provider

Create a new Authentication Provider

The following properties will be used to identify your new Authentication Provider.
* Indicates required fields

The name of the authentication provider.

* Name: WorldAuthenticator

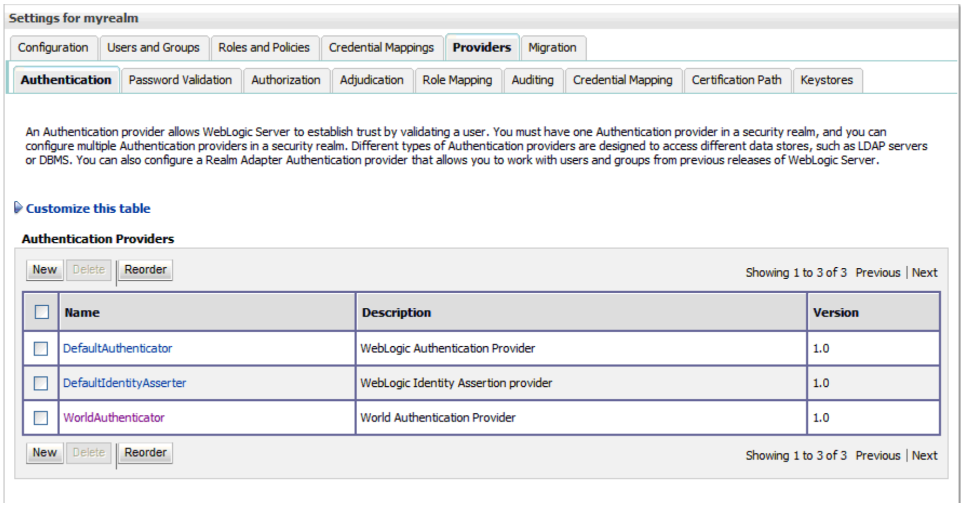
This is the type of authentication provider you wish to create.

Type: WorldAuthenticator

7. Enter the Name and select the Type WorldAuthenticator from the dropdown list.

   Click OK.

   The WorldAuthenticator displays as one of the Authentication Providers.


Settings for myrealm
Configuration | Users and Groups | Roles and Policies | Credential Mappings | Providers | Migration
Authentication | Password Validation | Authorization | Adjudication | Role Mapping | Auditing | Credential Mapping | Certification Path | Keystores
Customize this table
New | Delete | Reorder
Showing 1 to 3 of 3 Previous | Next

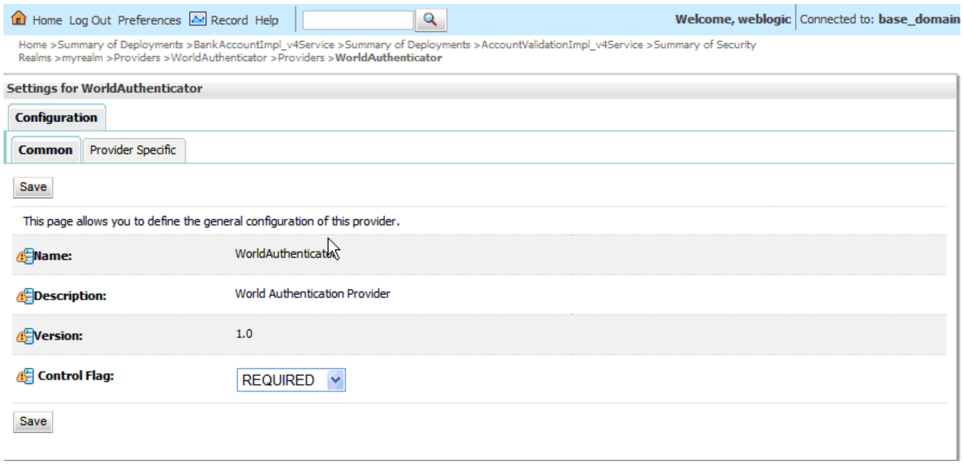
An Authentication provider allows WebLogic Server to establish trust by validating a user. You must have one Authentication provider in a security realm, and you can configure multiple Authentication providers in a security realm. Different types of Authentication providers are designed to access different data stores, such as LDAP servers or DBMS. You can also configure a Realm Adapter Authentication provider that allows you to work with users and groups from previous releases of WebLogic Server.

Authentication Providers

□	Name	Description	Version
□	DefaultAuthenticator	WebLogic Authentication Provider	1.0
□	DefaultIdentityAsserter	WebLogic Identity Assertion provider	1.0
□	WorldAuthenticator	World Authentication Provider	1.0

Make sure the WLS DefaultAuthenticator is before the WorldAuthenticator.

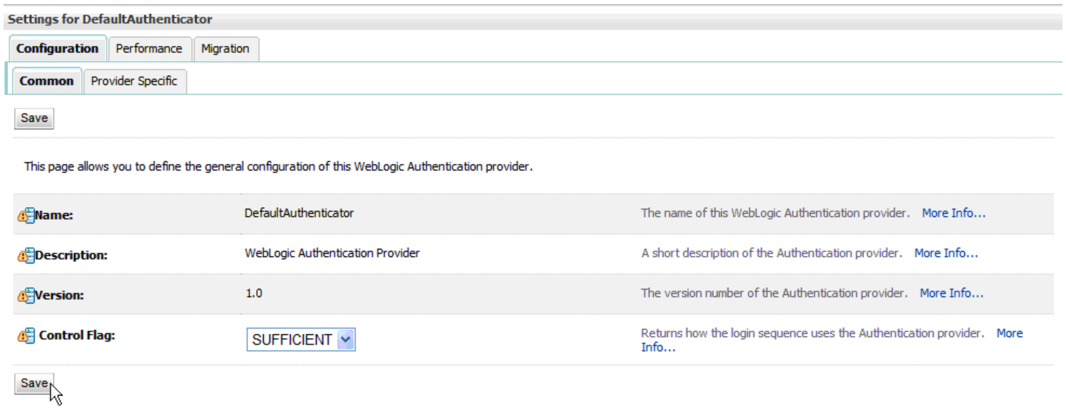
8. Click the WorldAuthenticator link.


Home Log Out Preferences Record Help
Welcome, weblogic | Connected to: base_domain
Home >Summary of Deployments >BankAccountImpl_v4Service >Summary of Deployments >AccountValidationImpl_v4Service >Summary of Security Realms >myrealm >Providers >WorldAuthenticator >Providers >WorldAuthenticator
Settings for WorldAuthenticator
Configuration
Common | Provider Specific
Save

This page allows you to define the general configuration of this provider.

Name:	WorldAuthenticator
Description:	World Authentication Provider
Version:	1.0
Control Flag:	REQUIRED

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



Settings for DefaultAuthenticator

This page allows you to define the general configuration of this WebLogic Authentication provider.

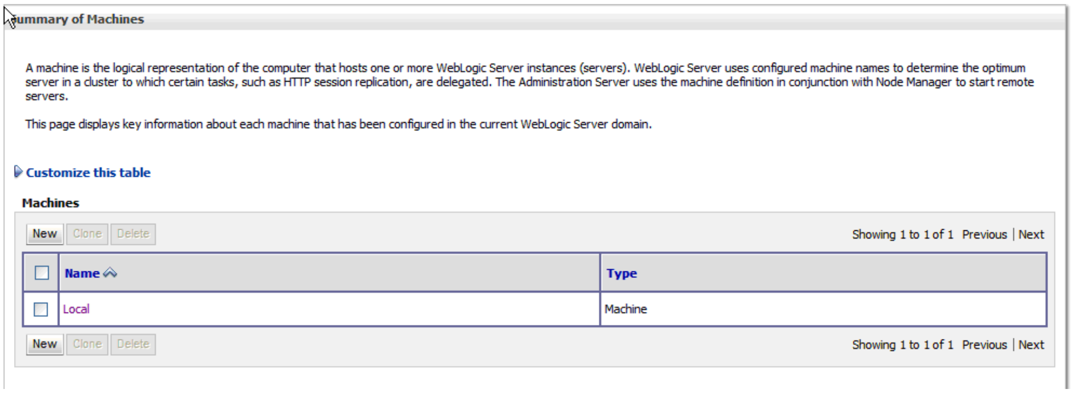
Name:	DefaultAuthenticator	The name of this WebLogic Authentication provider. More Info...
Description:	WebLogic Authentication Provider	A short description of the Authentication provider. More Info...
Version:	1.0	The version number of the Authentication provider. More Info...
Control Flag:	SUFFICIENT	Returns how the login sequence uses the Authentication provider. More Info...

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

    Click Save.

11. Create a machine. Use the default values.

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



Summary of Machines

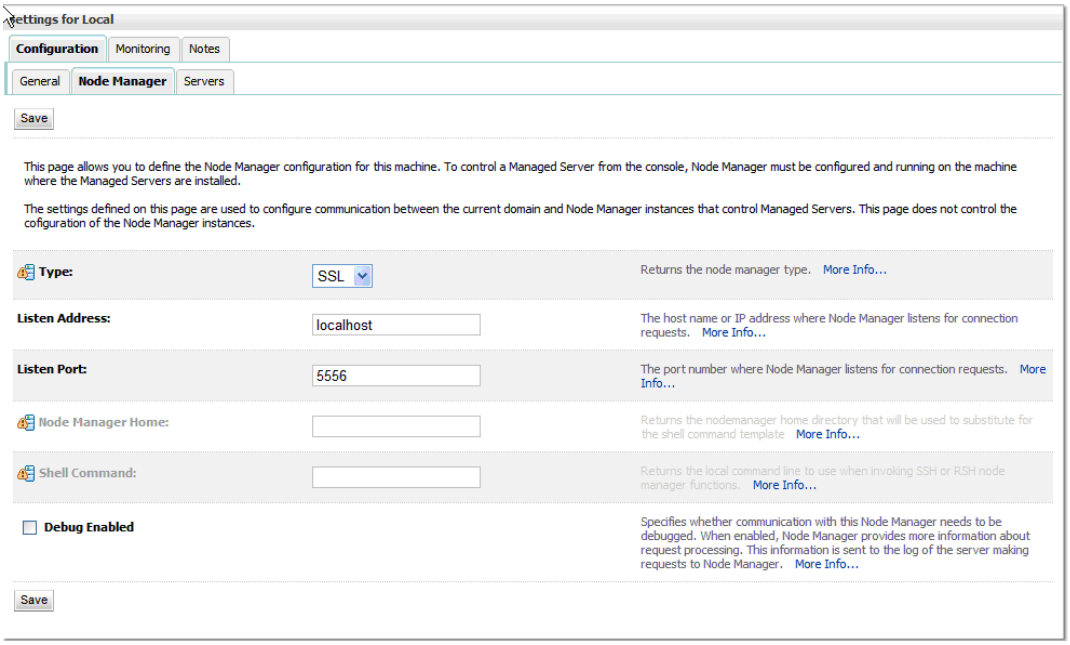
A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers). WebLogic Server uses configured machine names to determine the optimum server in a cluster to which certain tasks, such as HTTP session replication, are delegated. The Administration Server uses the machine definition in conjunction with Node Manager to start remote servers.

This page displays key information about each machine that has been configured in the current WebLogic Server domain.

Machines

□	Name	Type
□	Local	Machine

12. Select Local Machine.



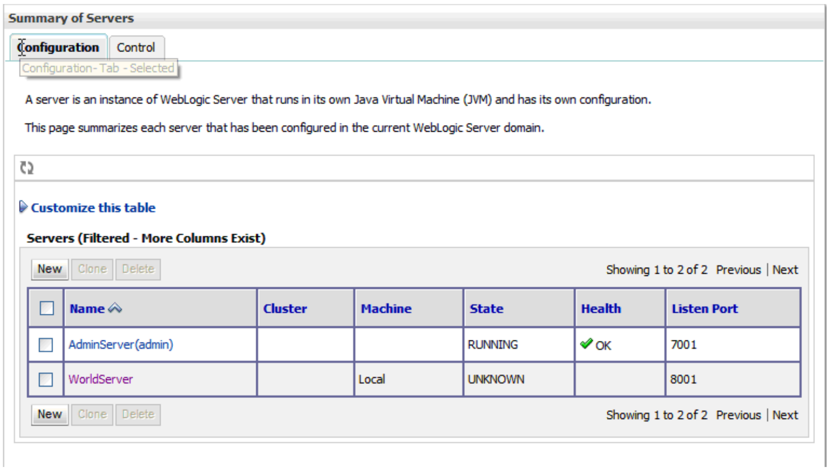
This page allows you to define the Node Manager configuration for this machine. To control a Managed Server from the console, Node Manager must be configured and running on the machine where the Managed Servers are installed.

The settings defined on this page are used to configure communication between the current domain and Node Manager instances that control Managed Servers. This page does not control the cofiguration of the Node Manager instances.

Type:	SSL	Returns the node manager type. More Info...
Listen Address:	localhost	The host name or IP address where Node Manager listens for connection requests. More Info...
Listen Port:	5556	The port number where Node Manager listens for connection requests. More Info...
Node Manager Home:		Returns the nodemanager home directory that will be used to substitute for the shell command template More Info...
Shell Command:		Returns the local command line to use when invoking SSH or RSH node manager functions. More Info...
□ Debug Enabled		Specifies whether communication with this Node Manager needs to be debugged. When enabled, Node Manager provides more information about request processing. This information is sent to the log of the server making requests to Node Manager. More Info...

13. Create a managed server for the Web Services.

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


Summary of Servers
Configuration
Control
Configuration- Tab - Selected

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.

This page summarizes each server that has been configured in the current WebLogic Server domain.

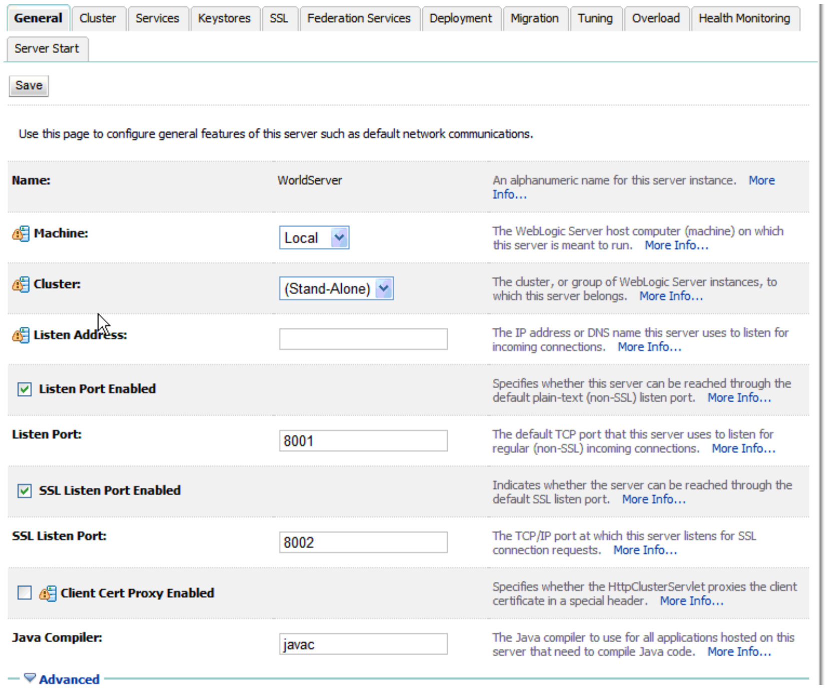
Customize this table
Servers (Filtered - More Columns Exist)
New
Clone
Delete
Showing 1 to 2 of 2 Previous | Next

□	Name	Cluster	Machine	State	Health	Listen Port
□	AdminServer(admin)			RUNNING	✓ OK	7001
□	WorldServer		Local	UNKNOWN		8001

New
Clone
Delete
Showing 1 to 2 of 2 Previous | Next

14. Select WorldServer.

Set Machine to machine configured in step 12.

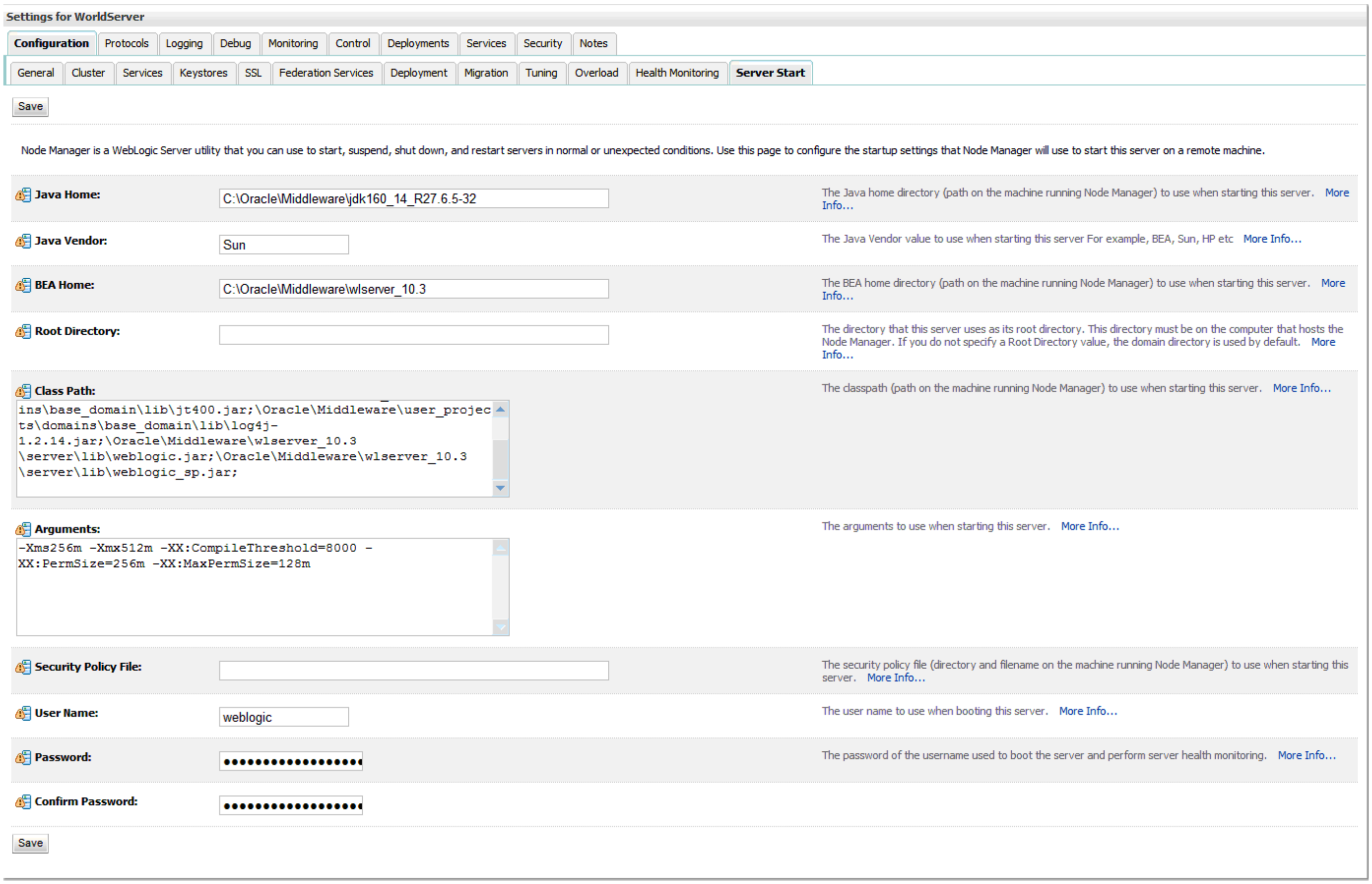


Use this page to configure general features of this server such as default network communications.

Name:	WorldServer	An alphanumeric name for this server instance. More Info...
Machine:	Local	The WebLogic Server host computer (machine) on which this server is meant to run. More Info...
Cluster:	(Stand-Alone)	The cluster, or group of WebLogic Server instances, to which this server belongs. More Info...
Listen Address:		The IP address or DNS name this server uses to listen for incoming connections. More Info...
☑ Listen Port Enabled		Specifies whether this server can be reached through the default plain-text (non-SSL) listen port. More Info...
Listen Port:	8001	The default TCP port that this server uses to listen for regular (non-SSL) incoming connections. More Info...
☑ SSL Listen Port Enabled		Indicates whether the server can be reached through the default SSL listen port. More Info...
SSL Listen Port:	8002	The TCP/IP port at which this server listens for SSL connection requests. More Info...
□ Client Cert Proxy Enabled		Specifies whether the HttpClusterServlet proxies the client certificate in a special header. More Info...
Java Compiler:	javac	The Java compiler to use for all applications hosted on this server that need to compile Java code. More Info...

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:



Node Manager is a WebLogic Server utility that you can use to start, suspend, shut down, and restart servers in normal or unexpected conditions. Use this page to configure the startup settings that Node Manager will use to start this server on a remote machine.

Java Home:	C:\Oracle\Middleware\jdk160_14_R27.6.5-32	The Java home directory (path on the machine running Node Manager) to use when starting this server. More Info...
Java Vendor:	Sun	The Java Vendor value to use when starting this server For example, BEA, Sun, HP etc More Info...
BEA Home:	C:\Oracle\Middleware\wlserver_10.3	The BEA home directory (path on the machine running Node Manager) to use when starting this server. More Info...
Root Directory:		The directory that this server uses as its root directory. This directory must be on the computer that hosts the Node Manager. If you do not specify a Root Directory value, the domain directory is used by default. More Info...
Class Path:	ins\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;	The classpath (path on the machine running Node Manager) to use when starting this server. More Info...
Arguments:	-Xms256m -Xmx512m -XX:CompileThreshold=8000 -XX:PermSize=256m -XX:MaxPermSize=128m	The arguments to use when starting this server. More Info...
Security Policy File:		The security policy file (directory and filename on the machine running Node Manager) to use when starting this server. More Info...
User Name:	weblogic	The user name to use when booting this server. More Info...
Password:	••••••••••••••••••	The password of the username used to boot the server and perform server health monitoring. More Info...
Confirm Password:	••••••••••••••••••	

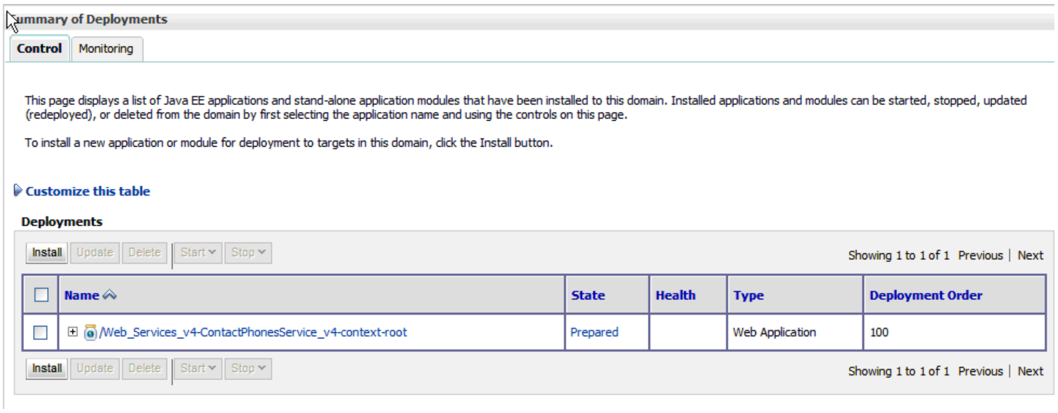
- Class Path:

  \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;

- Arguments:

  -Xms256m -Xmx512m -XX:CompileThreshold=8000 -XX:PermSize=256m -XX:MaxPermSize=128m

15. Deploy Services to managed server On Server Console, select Deployments.



Summary of Deployments

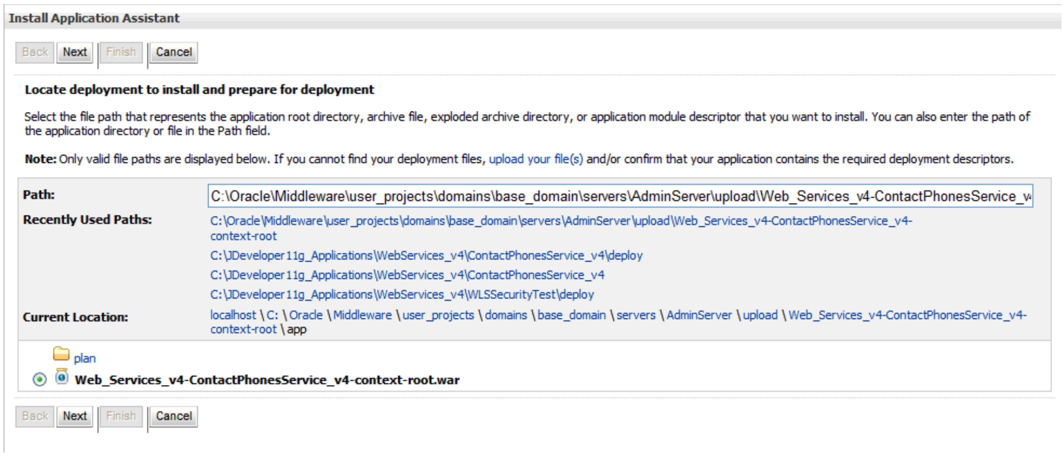
This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Deployments

☐	Name	State	Health	Type	Deployment Order
☐	/Web_Services_v4-ContactPhonesService_v4-context-root	Prepared		Web Application	100

16. Click Install.



Install Application Assistant

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the application directory or file in the Path field.

Note: Only valid file paths are displayed below. If you cannot find your deployment files, upload your file(s) and/or confirm that your application contains the required deployment descriptors.

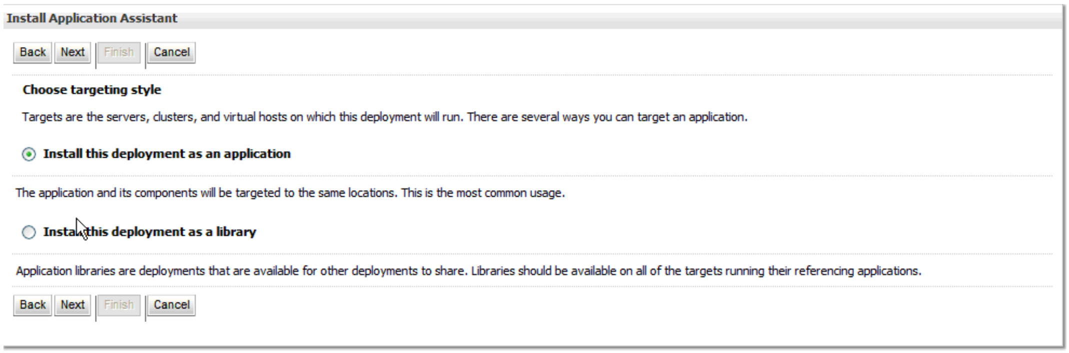
Path: C:\Oracle\Middleware\user_projects\domains\base_domain\servers\AdminServer\upload\Web_Services_v4-ContactPhonesService_v4

Recently Used Paths:
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:\JDeveloper11g_Applications\WebServices_v4\ContactPhonesService_v4
C:\JDeveloper11g_Applications\WebServices_v4\WLSSecurityTest\deploy

Current Location: localhost \ C: \ Oracle \ Middleware \ user_projects \ domains \ base_domain \ servers \ AdminServer \ upload \ Web_Services_v4-ContactPhonesService_v4-context-root \ app

plan
● Web_Services_v4-ContactPhonesService_v4-context-root.war

17. Locate service WAR file and then click Next.



Install Application Assistant

Choose targeting style

Targets are the servers, clusters, and virtual hosts on which this deployment will run. There are several ways you can target an application.

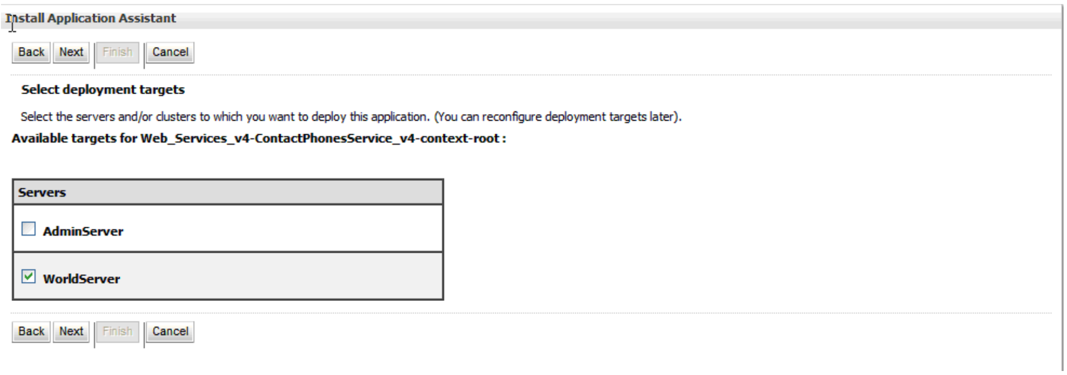
● Install this deployment as an application

The application and its components will be targeted to the same locations. This is the most common usage.

○ Install this deployment as a library

Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications.

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



Install Application Assistant

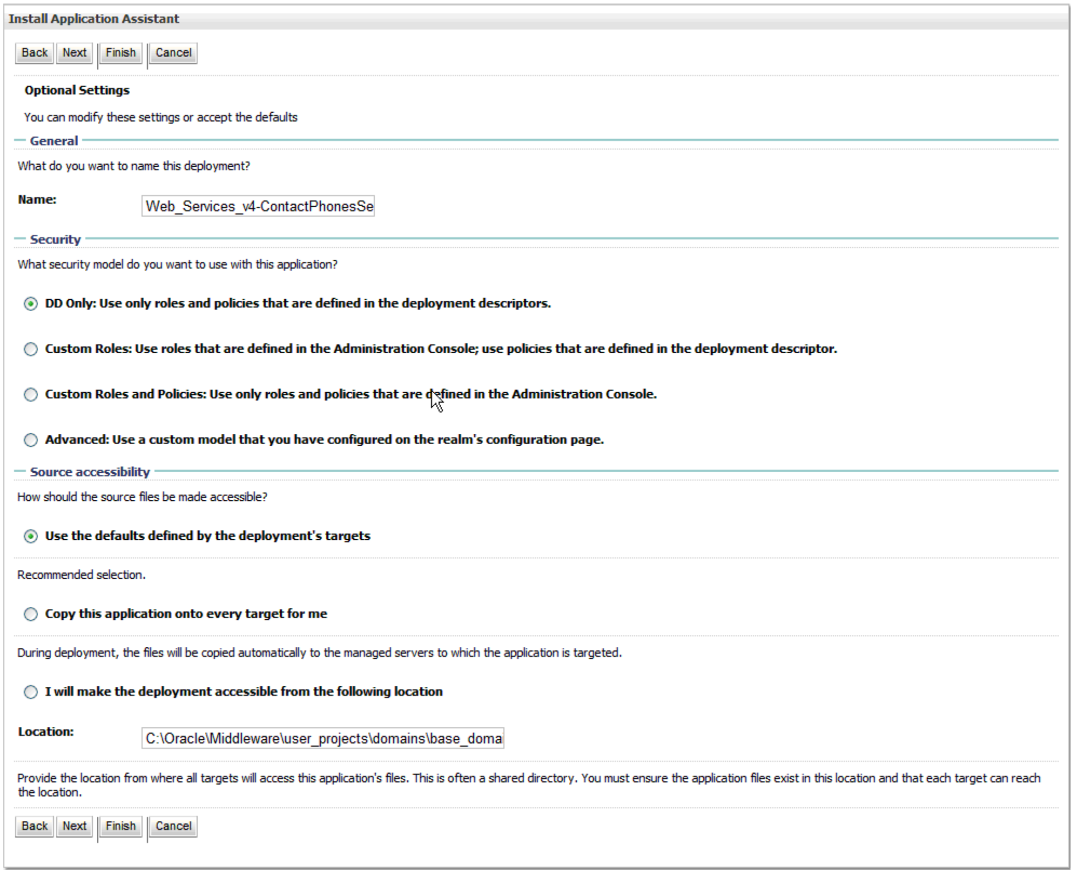
Select deployment targets

Select the servers and/or clusters to which you want to deploy this application. (You can reconfigure deployment targets later).

Available targets for Web_Services_v4-ContactPhonesService_v4-context-root :

Servers
□ AdminServer
☑ WorldServer

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



Install Application Assistant

Optional Settings

You can modify these settings or accept the defaults

General

What do you want to name this deployment?

Name: Web_Services_v4-ContactPhonesSe

Security

What security model do you want to use with this application?

● DD Only: Use only roles and policies that are defined in the deployment descriptors.

○ Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.

○ Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.

○ Advanced: Use a custom model that you have configured on the realm's configuration page.

Source accessibility

How should the source files be made accessible?

● Use the defaults defined by the deployment's targets

Recommended selection.

○ Copy this application onto every target for me

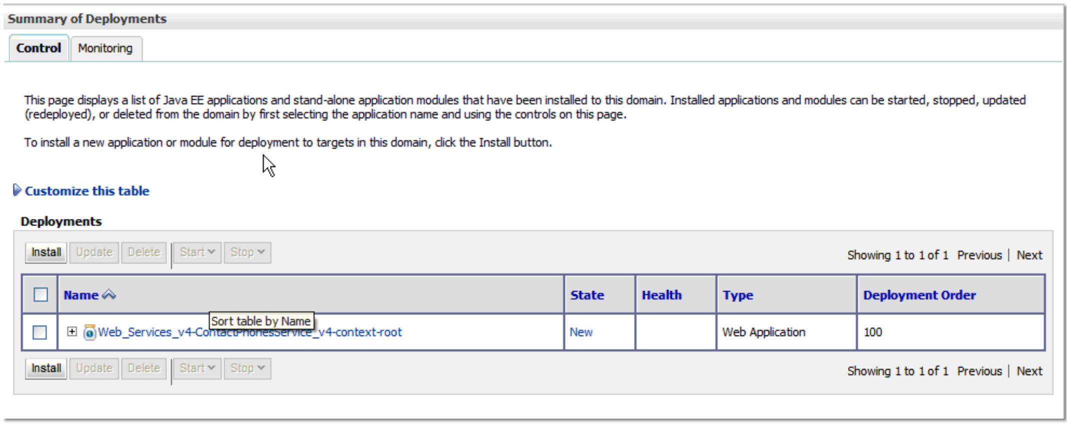
During deployment, the files will be copied automatically to the managed servers to which the application is targeted.

○ I will make the deployment accessible from the following location

Location: C:\Oracle\Middleware\user_projects\domains\base_doma

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

20. Click Finish.



Summary of Deployments

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

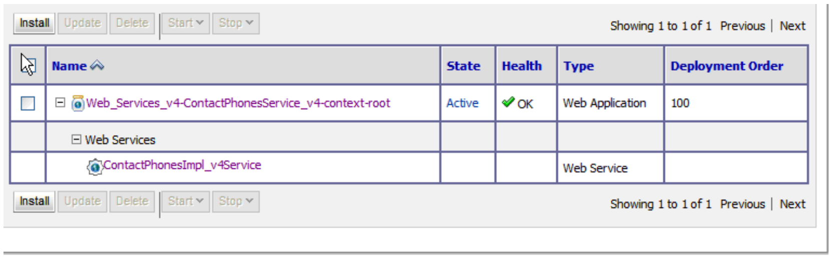
Deployments

□	Name	State	Health	Type	Deployment Order
□	⊞ Web_Services_v4-ContactPhonesService_v4-context-root	New		Web Application	100

The Summary of Deployments displays your service.

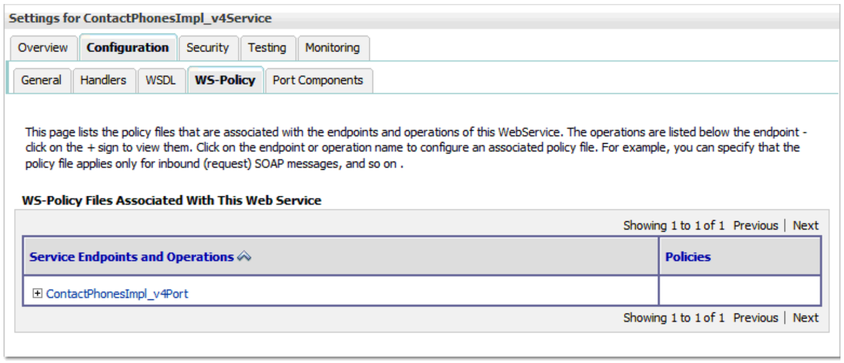
21. Configure security for service (the service must be started).

22. From the Deployments screen, expand the service you want to secure.



	Name	State	Health	Type	Deployment Order
□	⊟ Web_Services_v4-ContactPhonesService_v4-context-root	Active	✓ OK	Web Application	100
	⊟ Web Services				
	ContactPhonesImpl_v4Service			Web Service	

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



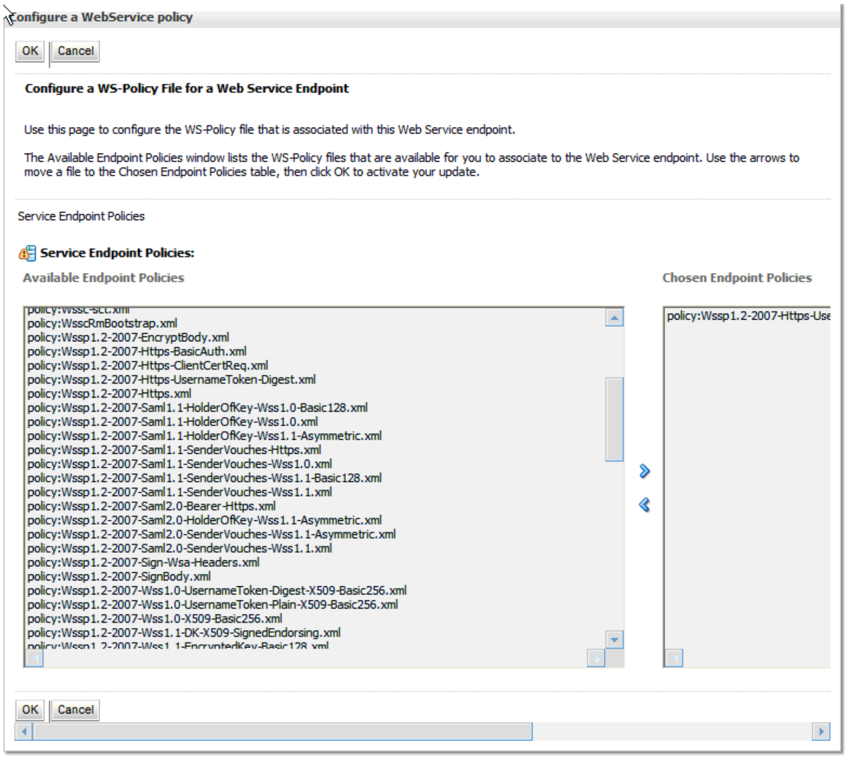
Settings for ContactPhonesImpl_v4Service

This page lists the policy files that are associated with the endpoints and operations of this WebService. The operations are listed below the endpoint - click on the + sign to view them. Click on the endpoint or operation name to configure an associated policy file. For example, you can specify that the policy file applies only for inbound (request) SOAP messages, and so on .

WS-Policy Files Associated With This Web Service

Service Endpoints and Operations	Policies
⊞ ContactPhonesImpl_v4Port	

24. Select the service.



Configure a WS-Policy File for a Web Service Endpoint

Use this page to configure the WS-Policy file that is associated with this Web Service endpoint.

The Available Endpoint Policies window lists the WS-Policy files that are available for you to associate to the Web Service endpoint. Use the arrows to move a file to the Chosen Endpoint Policies table, then click OK to activate your update.

Service Endpoint Policies

Service Endpoint Policies:

Available Endpoint Policies

```
policy:Wssc-sct.xml
policy:WsscRmBootstrap.xml
policy:Wssp1.2-2007-EncryptBody.xml
policy:Wssp1.2-2007-Https-BasicAuth.xml
policy:Wssp1.2-2007-Https-ClientCertReq.xml
policy:Wssp1.2-2007-Https-UsernameToken-Digest.xml
policy:Wssp1.2-2007-Https.xml
policy:Wssp1.2-2007-Saml1.1-HolderOfKey-Wss1.0-Basic128.xml
policy:Wssp1.2-2007-Saml1.1-HolderOfKey-Wss1.0.xml
policy:Wssp1.2-2007-Saml1.1-HolderOfKey-Wss1.1-Asymmetric.xml
policy:Wssp1.2-2007-Saml1.1-SenderVouches-Https.xml
policy:Wssp1.2-2007-Saml1.1-SenderVouches-Wss1.0.xml
policy:Wssp1.2-2007-Saml1.1-SenderVouches-Wss1.1-Basic128.xml
policy:Wssp1.2-2007-Saml1.1-SenderVouches-Wss1.1.xml
policy:Wssp1.2-2007-Saml2.0-Bearer-Https.xml
policy:Wssp1.2-2007-Saml2.0-HolderOfKey-Wss1.1-Asymmetric.xml
policy:Wssp1.2-2007-Saml2.0-SenderVouches-Wss1.1-Asymmetric.xml
policy:Wssp1.2-2007-Saml2.0-SenderVouches-Wss1.1.xml
policy:Wssp1.2-2007-Sign-Wsa-Headers.xml
policy:Wssp1.2-2007-SignBody.xml
policy:Wssp1.2-2007-Wss1.0-UsernameToken-Digest-X509-Basic256.xml
policy:Wssp1.2-2007-Wss1.0-UsernameToken-Plain-X509-Basic256.xml
policy:Wssp1.2-2007-Wss1.0-X509-Basic256.xml
policy:Wssp1.2-2007-Wss1.1-DK-X509-SignedEndorsing.xml
policy:Wssp1.2-2007-Wss1.1-EncryptedKey-Basic128.xml
```

Chosen Endpoint Policies

```
policy:Wssp1.2-2007-Https-Use
```

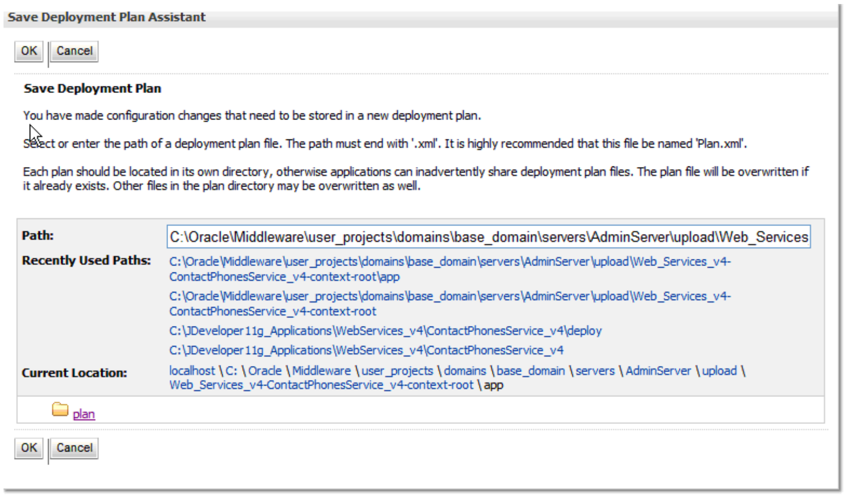
25. Select:

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

You have made configuration changes that need to be stored in a new deployment plan.

Select 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:\JDeveloper11g_Applications\WebServices_v4\ContactPhonesService_v4

Current Location: localhost \ C: \ Oracle \ Middleware \ user_projects \ domains \ base_domain \ servers \ AdminServer \ upload \ Web_Services_v4-ContactPhonesService_v4-context-root \ app

plan

26. Click OK and then restart the server.

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:

```
<soapenv:Header>

   <wsse:Security 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-secext-1.0.xsd"
xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
soapenv:mustUnderstand="1">

   <wsse:UsernameToken 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-secext-1.0.xsd">

     <Username>DN=SOAPROXY,ADR=JDED, ENV=A93TS</Username>

     <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-username-token-profile-
1.0#PasswordText">edduser93</wsse:Password>

   </wsse:UsernameToken>

  </wsse:Security>

</soapenv:Header>
```

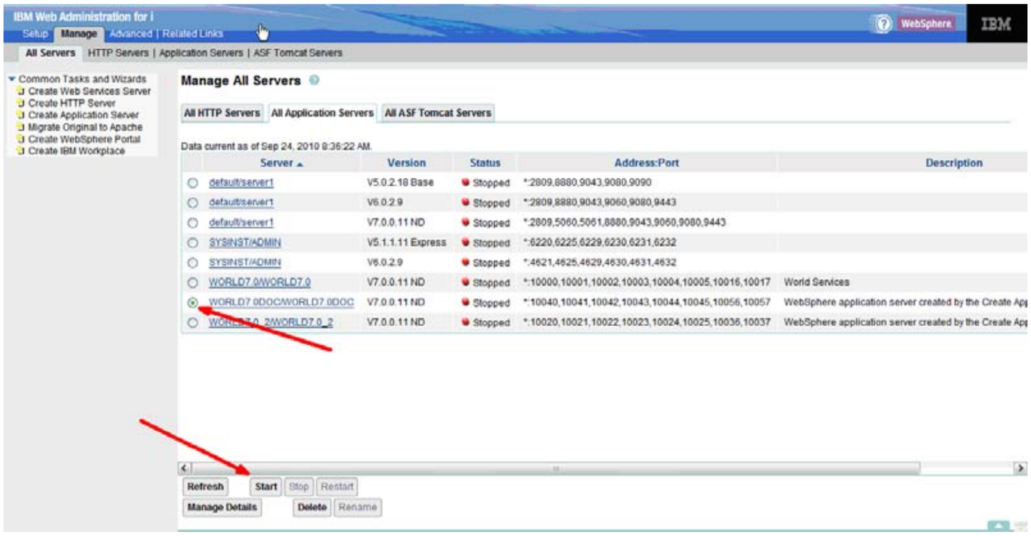
WebSphere Application Server

If you do not already have an appropriate WebSphere Application Server, create an application server. Refer to *Appendix B – Create WebSphere Application Server* in this guide.

To install the WebSphere Application Server

1. Start Application Server.

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

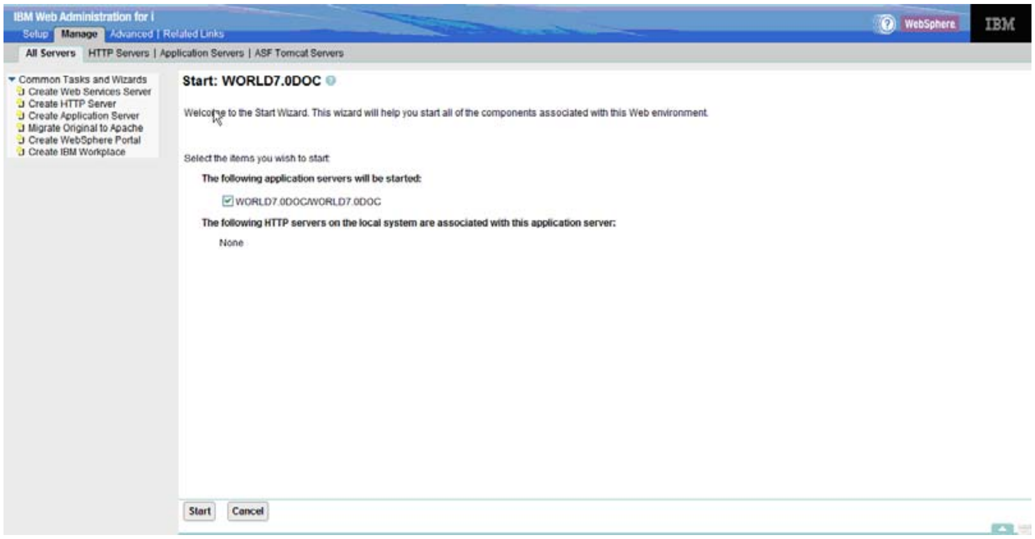


Manage All Servers

Data current as of Sep 24, 2010 8:36:22 AM.

	Server ▲	Version	Status	Address:Port	Description
○	default/server1	V5.0.2.18 Base	● Stopped	*:2809,8880,9043,9080,9090	
○	default/server1	V6.0.2.9	● Stopped	*:2809,8880,9043,9060,9080,9443	
○	default/server1	V7.0.0.11 ND	● Stopped	*:2809,5060,5061,8880,9043,9060,9080,9443	
○	SYSINST/ADMIN	V5.1.1.11 Express	● Stopped	*:6220,6225,6229,6230,6231,6232	
○	SYSINST/ADMIN	V6.0.2.9	● Stopped	*:4621,4625,4629,4630,4631,4632	
○	WORLD7.0/WORLD7.0	V7.0.0.11 ND	● Stopped	*:10000,10001,10002,10003,10004,10005,10016,10017	World Services
●	WORLD7.0DOC/WORLD7.0DOC	V7.0.0.11 ND	● Stopped	*:10040,10041,10042,10043,10044,10045,10056,10057	WebSphere application server created by the Create Ap
○	WORLD7.0_2/WORLD7.0_2	V7.0.0.11 ND	● Stopped	*:10020,10021,10022,10023,10024,10025,10036,10037	WebSphere application server created by the Create Ap

2. Select the appropriate Application Server and then click Start.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Start
Cancel

Start: WORLD7.0DOC

Welcome to the Start Wizard. This wizard will help you start all of the components associated with this Web environment.

Select the items you wish to start

The following application servers will be started:

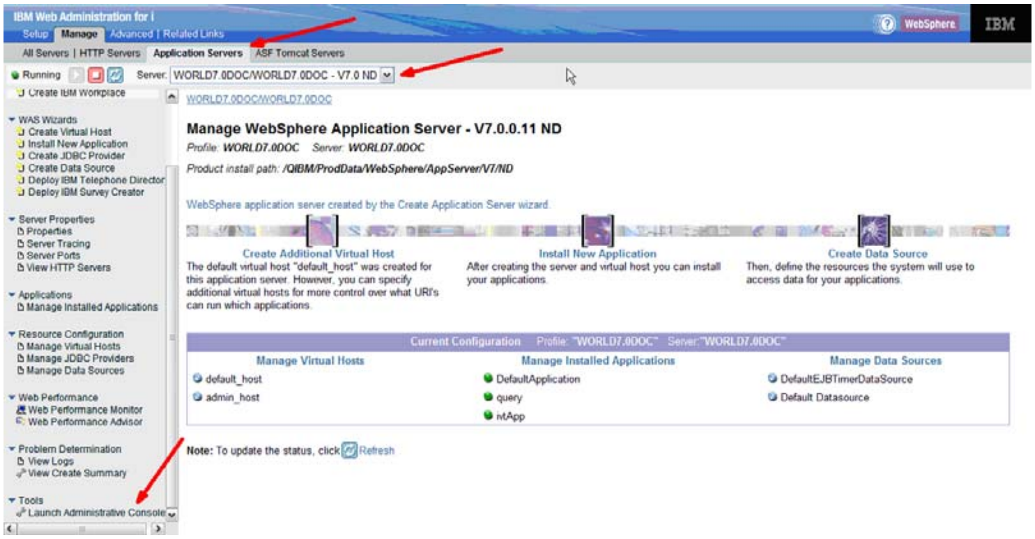
☑ WORLD7.0DOC/WORLD7.0DOC

The following HTTP servers on the local system are associated with this application server:

None

3. Click Start.

Launch Administrative Console.



Server: WORLD7.0DOC/WORLD7.0DOC - V7.0 ND

Manage WebSphere Application Server - V7.0.0.11 ND

Profile: ***WORLD7.0DOC*** *Server:* ***WORLD7.0DOC***

Product install path: ***/QIBM/ProdData/WebSphere/AppServer/V7/ND***

WebSphere application server created by the Create Application Server wizard.

Create Additional Virtual Host: The default virtual host "default_host" was created for this application server. However, you can specify additional virtual hosts for more control over what URI's can run which applications.

Install New Application: After creating the server and virtual host you can install your applications.

Create Data Source: Then, define the resources the system will use to access data for your applications.

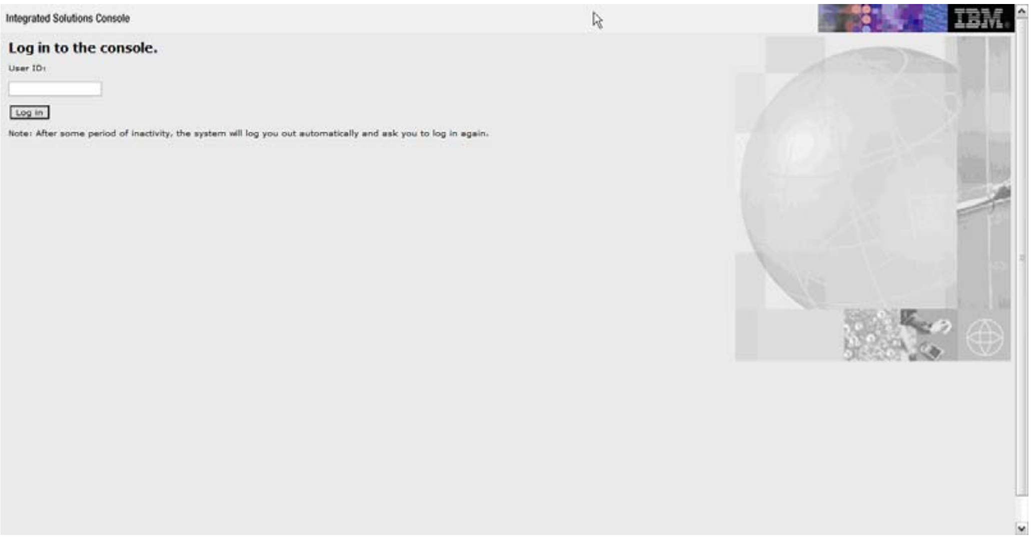
Current Configuration Profile: "WORLD7.0DOC" Server:"WORLD7.0DOC"

Manage Virtual Hosts	Manage Installed Applications	Manage Data Sources
default_host	DefaultApplication	DefaultEJBTimerDataSource
admin_host	query	Default Datasource
	rtApp	

Note: To update the status, click Refresh

4. Select the Application Servers Tab then select the appropriate server from the Server dropdown box.

   Click the Launch Administrative Console link.

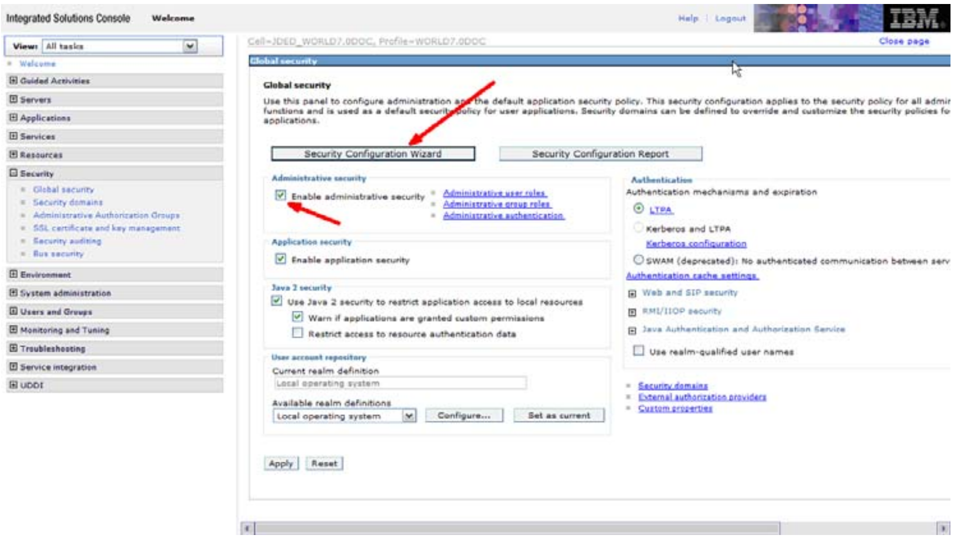


Log in to the console.

User ID:

Note: After some period of inactivity, the system will log you out automatically and ask you to log in again.

5. Leave the User ID blank and click Log in.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security

Use this panel to configure administration and the default application security policy. This security configuration applies to the security policy for all admir functions and is used as a default security policy for user applications. Security domains can be defined to override and customize the security policies fo applications.

Security Configuration Wizard | Security Configuration Report

Administrative security

☑ Enable administrative security

- Administrative user roles
- Administrative group roles
- Administrative authentication

Application security

☑ Enable application security

Java 2 security

☑ Use Java 2 security to restrict application access to local resources

☑ Warn if applications are granted custom permissions

☐ Restrict access to resource authentication data

User account repository

Current realm definition: Local operating system

Available realm definitions: Local operating system | Configure... | Set as current

Authentication

Authentication mechanisms and expiration

● LTPA

○ Kerberos and LTPA

Kerberos configuration

○ SWAM (deprecated): No authenticated communication between serv

Authentication cache settings

⊞ Web and SIP security

⊞ RMI/IIOP security

⊞ Java Authentication and Authorization Service

☐ Use realm-qualified user names

- Security domains
- External authorization providers
- Custom properties

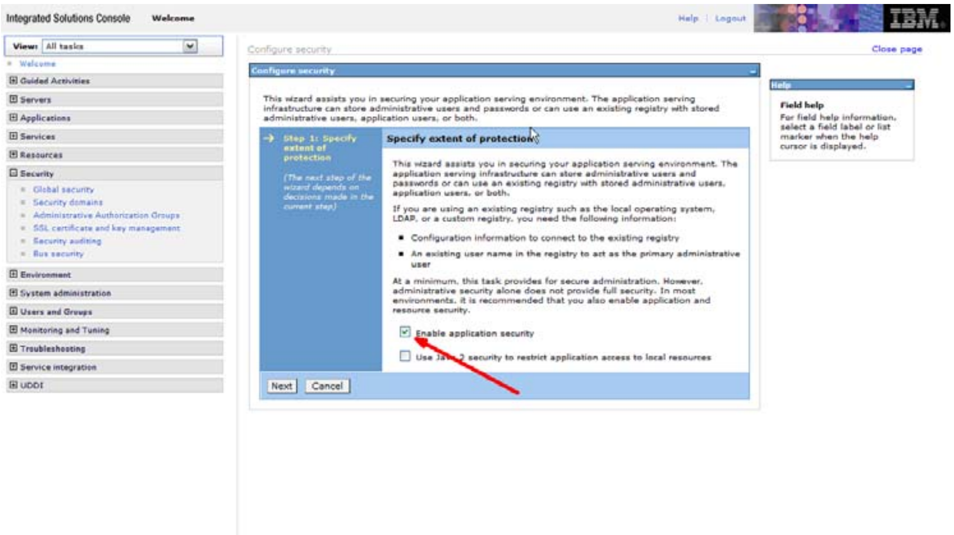
Apply | Reset

6. Configure security for JAAS.

   Open: Security – Global Security.

   Select the Enable administrative security checkbox.

   Click Security Configuration Wizard.



This wizard assists you in securing your application serving environment. The application serving infrastructure can store administrative users and passwords or can use an existing registry with stored administrative users, application users, or both.

→ Step 1: Specify extent of protection

(The next step of the wizard depends on decisions made in the current step)

Specify extent of protection

This wizard assists you in securing your application serving environment. The application serving infrastructure can store administrative users and passwords or can use an existing registry with stored administrative users, application users, or both.

If you are using an existing registry such as the local operating system, LDAP, or a custom registry, you need the following information:

- Configuration information to connect to the existing registry
- An existing user name in the registry to act as the primary administrative user

At a minimum, this task provides for secure administration. However, administrative security alone does not provide full security. In most environments, it is recommended that you also enable application and resource security.

☑ Enable application security

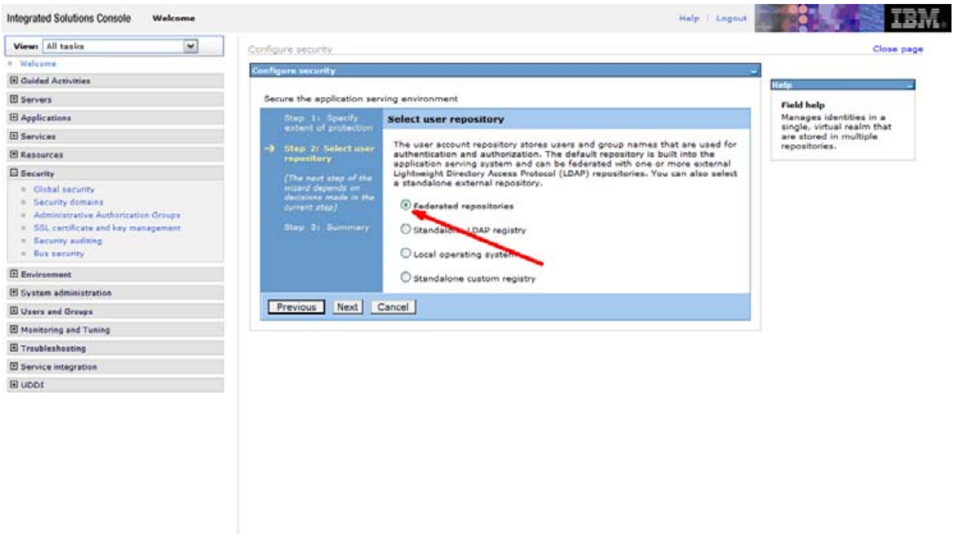
☐ Use Java 2 security to restrict application access to local resources

Next | Cancel

Field help

For field help information, select a field label or list marker when the help cursor is displayed.

7. Select Enable application security and then click Next.



Secure the application serving environment

Select user repository

The user account repository stores users and group names that are used for authentication and authorization. The default repository is built into the application serving system and can be federated with one or more external Lightweight Directory Access Protocol (LDAP) repositories. You can also select a standalone external repository.

● Federated repositories

○ Standalone LDAP registry

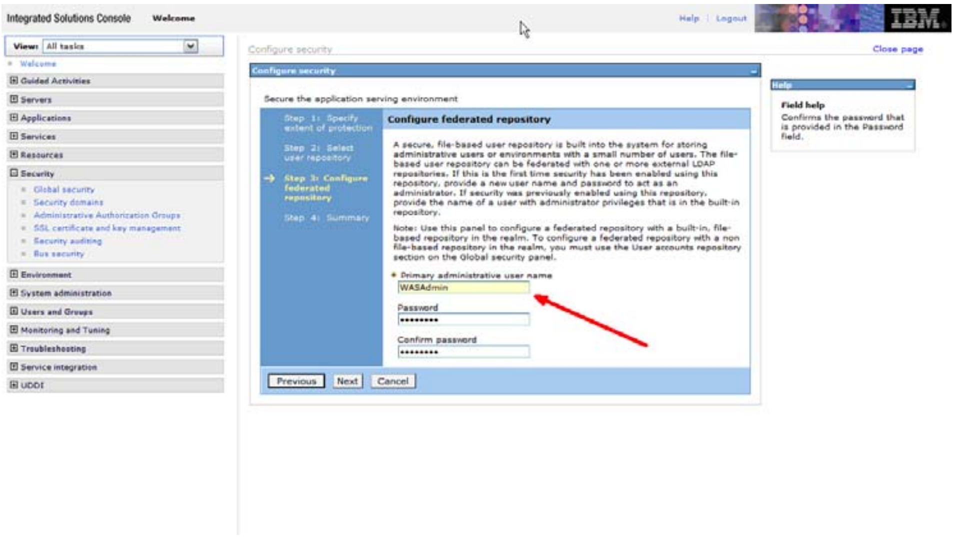
○ Local operating system

○ Standalone custom registry

Field help

Manages identities in a single, virtual realm that are stored in multiple repositories.

8. Select Federated repositories and then click Next.



Secure the application serving environment

Configure federated repository

A secure, file-based user repository is built into the system for storing administrative 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 user name and password to act as an administrator. If security was previously enabled using this repository, provide the name of a user with administrator privileges that is in the built-in repository.

Note: Use this panel to configure a federated repository with a built-in, file-based repository in the realm. To configure a federated repository with a non file-based repository in the realm, you must use the User accounts repository section on the Global security panel.

* Primary administrative user name: WASAdmin

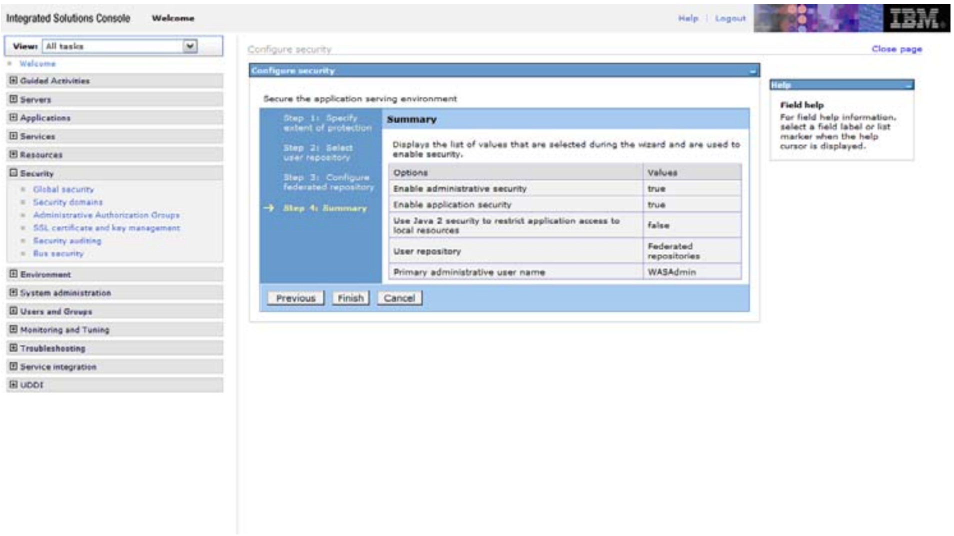
Password: ••••••••

Confirm password: ••••••••

Field help

Confirms the password that is provided in the Password field.

9. Enter Primary administrative user name and Password and then click Next.



Configure security

Secure the application serving environment

Summary

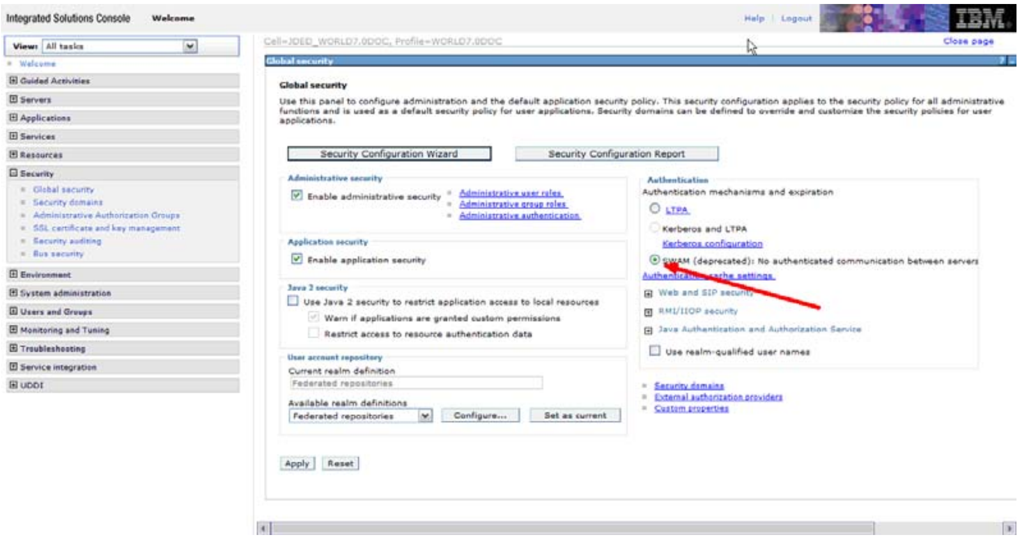
Displays the list of values that are selected during the wizard and are used to enable security.

Options	Values
Enable administrative security	true
Enable application security	true
Use Java 2 security to restrict application access to local resources	false
User repository	Federated repositories
Primary administrative user name	WASAdmin

Field help

For field help information, select a field label or list marker when the help cursor is displayed.

10. Review settings and then click Finish.



Global security

Use this panel to configure administration and the default application security policy. This security configuration applies to the security policy for all administrative functions and is used as a default security policy for user applications. Security domains can be defined to override and customize the security policies for user applications.

Administrative security

☑ Enable administrative security

Application security

☑ Enable application security

Java 2 security

☐ Use Java 2 security to restrict application access to local resources

☑ Warn if applications are granted custom permissions

☐ Restrict access to resource authentication data

User account repository

Current realm definition: Federated repositories

Available realm definitions: Federated repositories

Authentication

Authentication mechanisms and expiration

○ LTPA

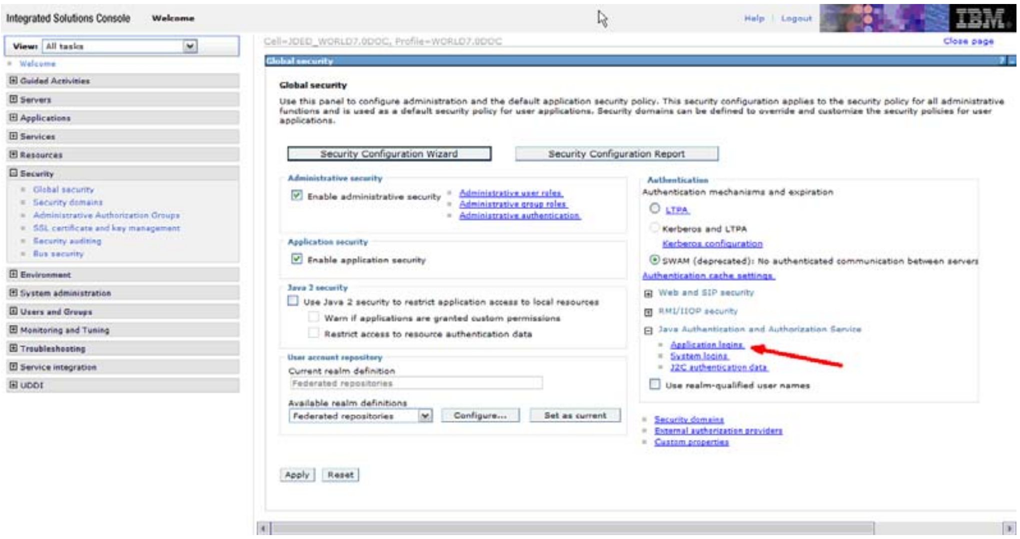
○ Kerberos and LTPA

● SWAM (deprecated): No authenticated communication between servers

☐ Use realm-qualified user names

11. Select the Use SWAM –no authenticated communication between servers checkbox.

    Click Apply and then click Save.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security

Global security

Use this panel to configure administration and the default application security policy. This security configuration applies to the security policy for all administrative functions and is used as a default security policy for user applications. Security domains can be defined to override and customize the security policies for user applications.

Administrative security

☑ Enable administrative security

Application security

☑ Enable application security

Java 2 security

□ Use Java 2 security to restrict application access to local resources

□ Warn if applications are granted custom permissions

□ Restrict access to resource authentication data

User account repository

Current realm definition: Federated repositories

Available realm definitions: Federated repositories

Authentication

Authentication mechanisms and expiration

○ LTPA

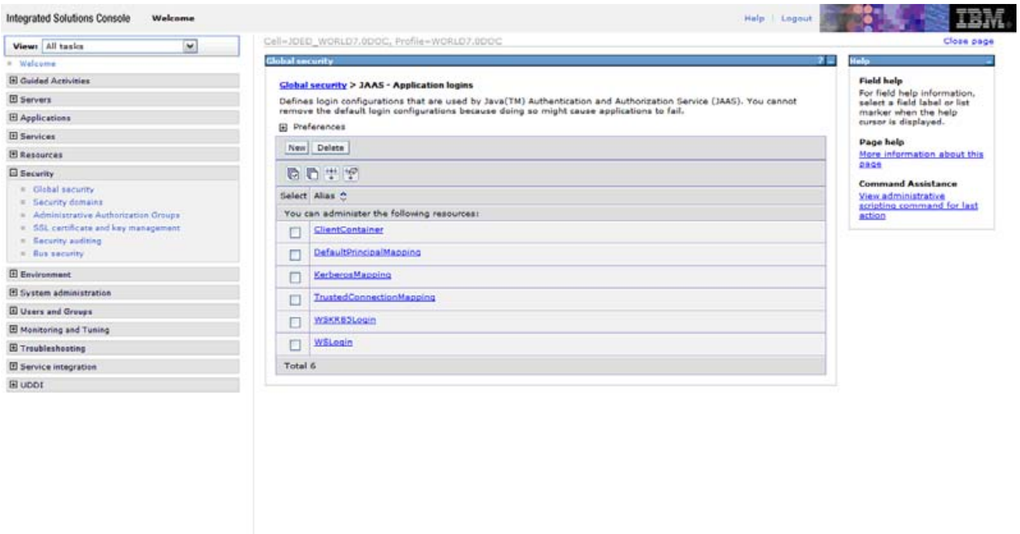
○ Kerberos and LTPA

● SWAM (deprecated): No authenticated communication between servers

□ Use realm-qualified user names

12. Add World Application login and configure custom login module.

Open Security – Global Security – Java Authentication and Authorization Service – Application Logins.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security

Global security > JAAS - Application logins

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.

Select	Alias
You can administer the following resources:	
□	ClientContainer
□	DefaultPrincipalMapping
□	KerberosMapping
□	TrustedConnectionMapping
□	WSKRB5Login
□	WSLogin
Total 6	

Field help

For field help information, select a field label or list marker when the help cursor is displayed.

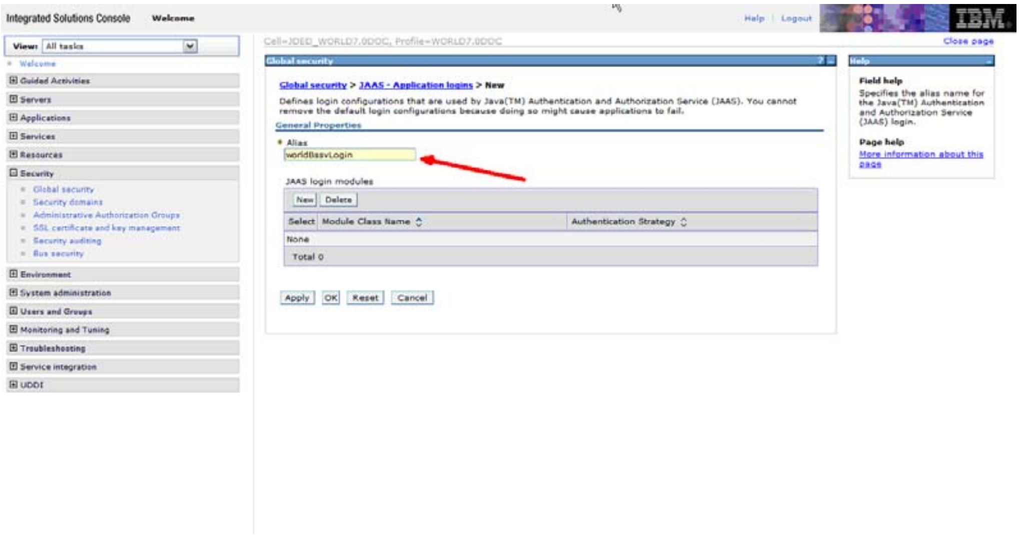
Page help

More information about this page

Command Assistance

View administrative scripting command for last action

13. Click New.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security > JAAS - Application logins > New

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

* Alias

worldBssvLogin

JAAS login modules

Select	Module Class Name	Authentication Strategy
None		
Total 0		

Field help

Specifies the alias name for the Java(TM) Authentication and Authorization Service (JAAS) login.

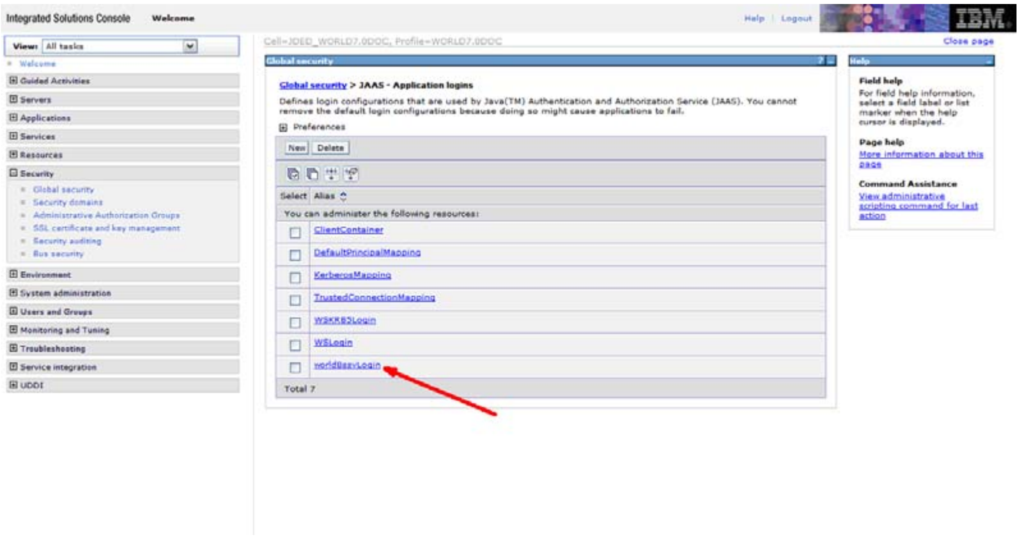
Page help

More information about this page

14. Enter the Alias:

worldBssvLogin

Click Apply.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security > JAAS - Application logins

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.

Select	Alias
You can administer the following resources:	
□	ClientContainer
□	DefaultPrincipalMapping
□	KerberosMapping
□	TrustedConnectionMapping
□	WSKRB5Login
□	WSLogin
□	worldBssvLogin
Total 7	

Field help

For field help information, select a field label or list marker when the help cursor is displayed.

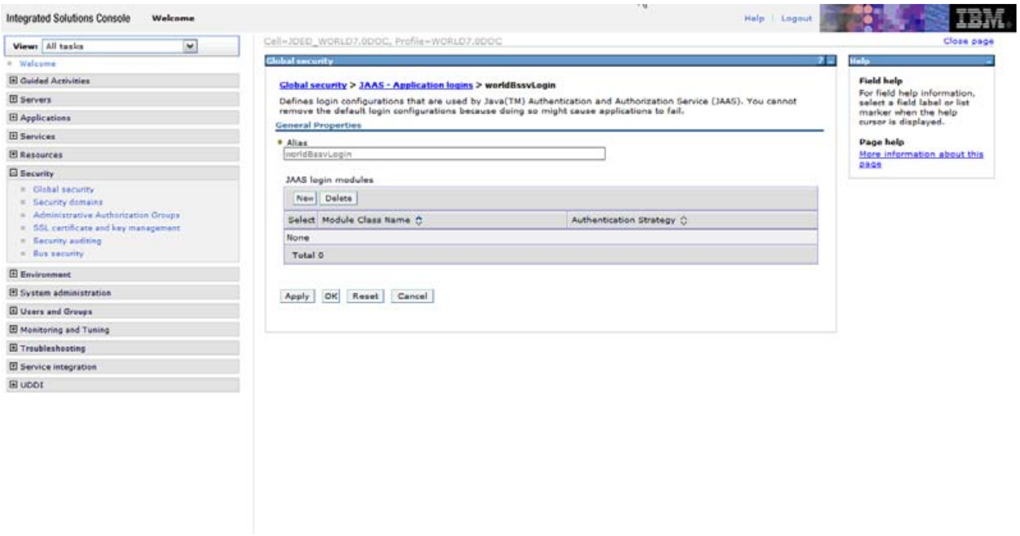
Page help

More information about this page

Command Assistance

View administrative scripting command for last action

15. Click the worldBssvLogin link.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security > JAAS - Application logins > worldBssvLogin

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

* Alias
worldBssvLogin

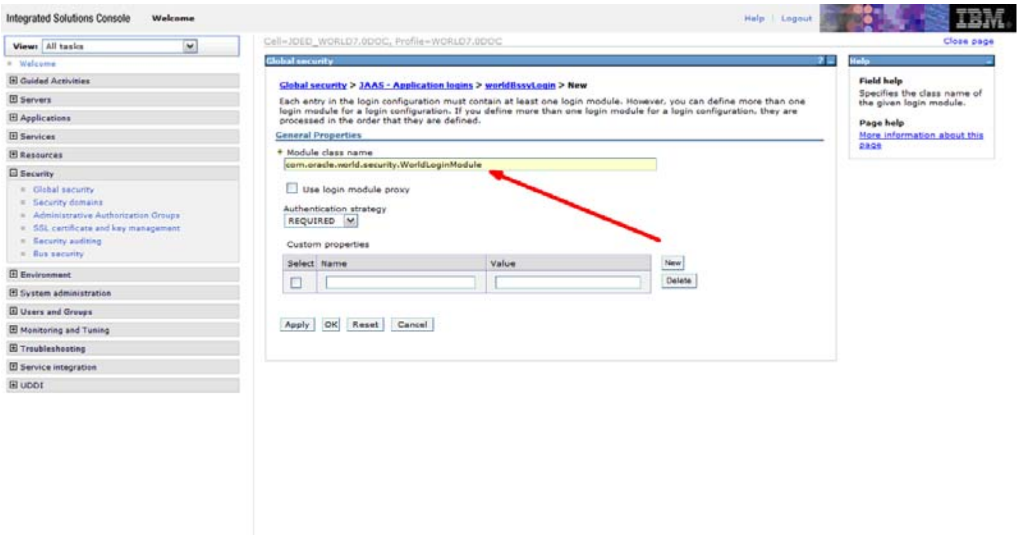
JAAS login modules

Select	Module Class Name	Authentication Strategy
None		
Total 0		

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

16. Click New.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Global security > JAAS - Application logins > worldBssvLogin > New

Each entry in the login configuration must contain at least one login module. However, you can define more than one login module for a login configuration. If you define more than one login module for a login configuration, they are processed in the order that they are defined.

General Properties

* Module class name
com.oracle.world.security.WorldLoginModule

□ Use login module proxy

Authentication strategy
REQUIRED

Custom properties

Select	Name	Value
□		

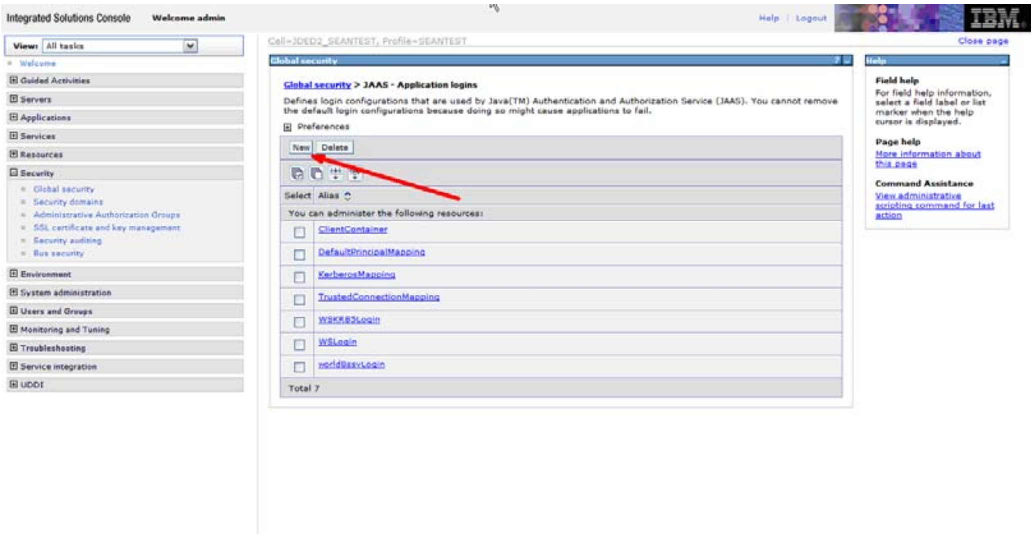
Field help
Specifies the class name of the given login module.

Page help
More information about this page

17. Enter full pathname for custom login module in the Module class name field.

com.oracle.world.security.WorldLoginModule

Click Apply.



Cell=JDED2_SEANTEST, Profile=SEANTEST

Global security > JAAS - Application logins

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.

⊞ Preferences

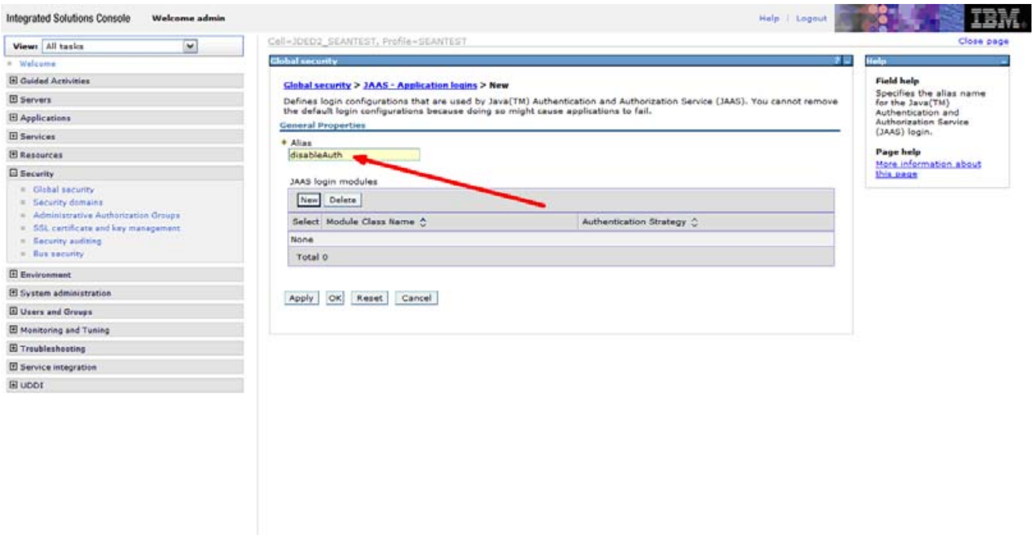
Select	Alias
You can administer the following resources:	
□	ClientContainer
□	DefaultPrincipalMapping
□	KerberosMapping
□	TrustedConnectionMapping
□	WSKRB5Login
□	WSLogin
□	worldEasyLogin
Total 7	

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

Command Assistance
View administrative scripting command for last action

18. Navigate back to the JAAS – Application logins screen and then click New.



Cell=JDED2_SEANTEST, Profile=SEANTEST

Global security > JAAS - Application logins > New

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

* Alias
disableAuth

JAAS login modules

Select	Module Class Name	Authentication Strategy
None		
Total 0		

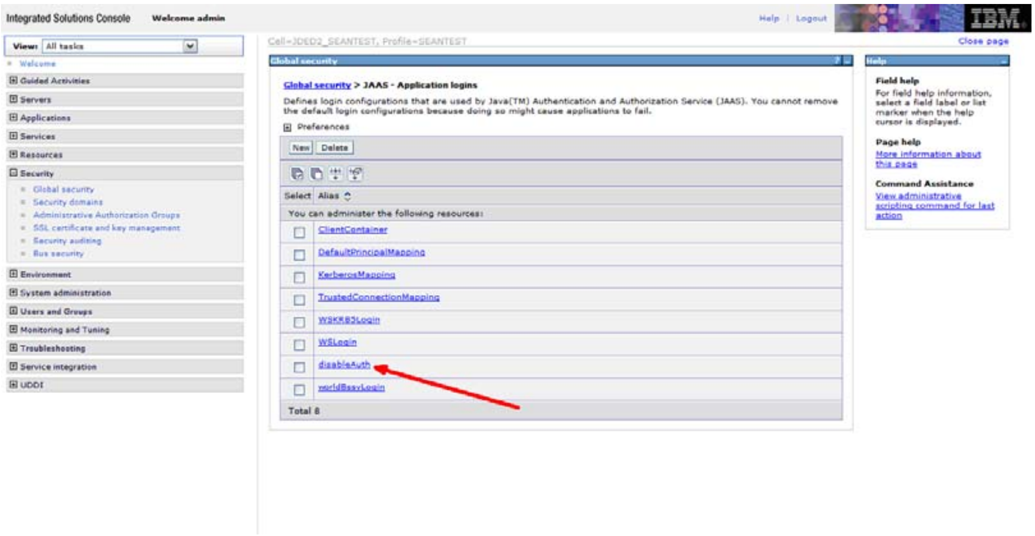
Field help
Specifies the alias name for the Java(TM) Authentication and Authorization Service (JAAS) login.

Page help
More information about this page

19. Enter the Alias:

disableAuth

Click Apply.



Cell=JDED2_SEANTEST, Profile=SEANTEST

Global security > JAAS - Application logins

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.

⊞ Preferences

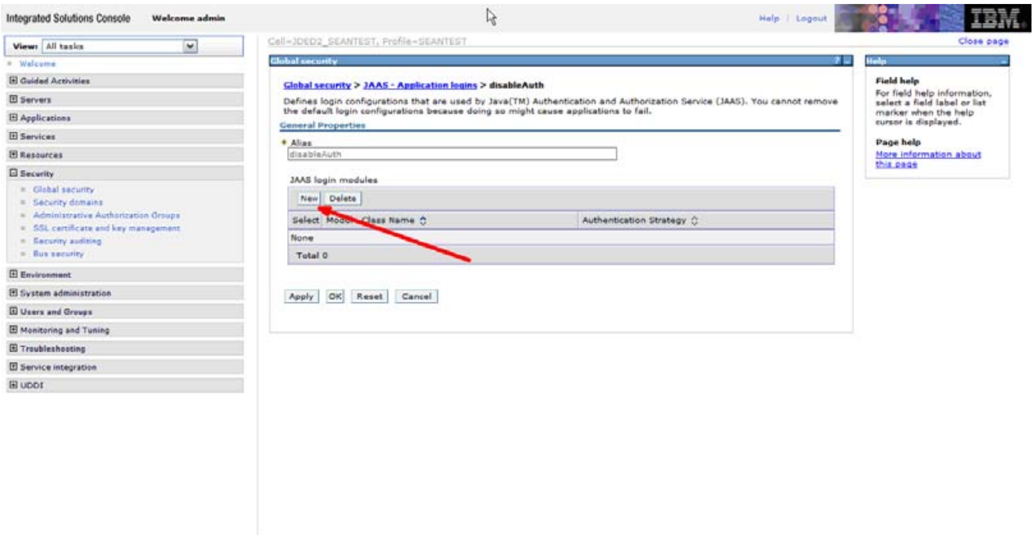
Select	Alias
You can administer the following resources:	
□	ClientContainer
□	DefaultPrincipalMapping
□	KerberosMapping
□	TrustedConnectionMapping
□	WSKRB5Login
□	WSLogin
□	disableAuth
□	worldEasyLogin
Total 8	

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

Command Assistance
View administrative scripting command for last action

20. Click the disableAuth link.



Cell=JDED2_SEANTEST, Profile=SEANTEST

Global security > JAAS - Application logins > disableAuth

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

* Alias
disableAuth

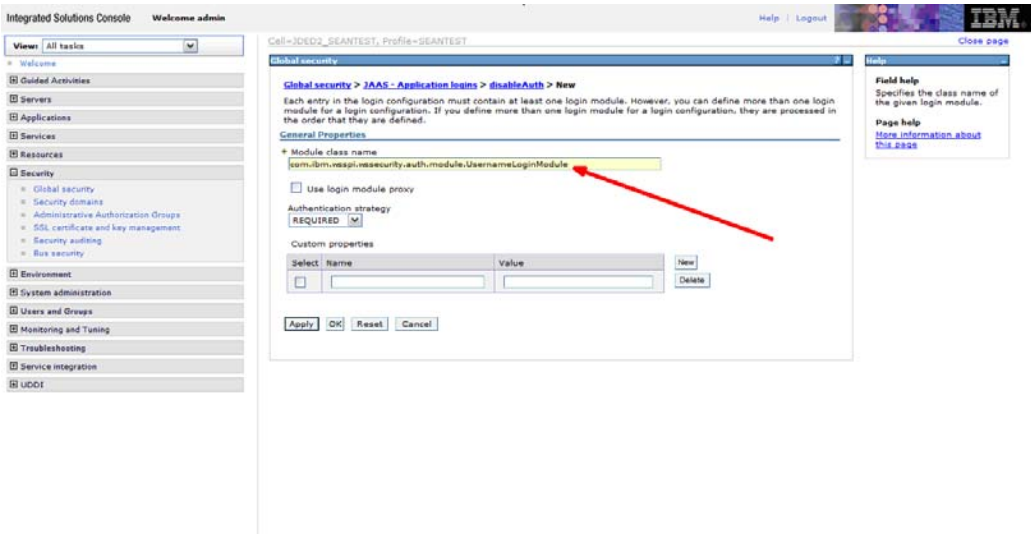
JAAS login modules

Select	Module Class Name	Authentication Strategy
None		
Total 0		

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

21. Click New.



Cell=JDED2_SEANTEST, Profile=SEANTEST

Global security > JAAS - Application logins > disableAuth > New

Each entry in the login configuration must contain at least one login module. However, you can define more than one login module for a login configuration. If you define more than one login module for a login configuration, they are processed in the order that they are defined.

General Properties

* Module class name

com.ibm.wsspi.wssecurity.auth.module.UsernameLoginModule

□ Use login module proxy

Authentication strategy

REQUIRED

Custom properties

Select	Name	Value
□		

New Delete

Apply OK Reset Cancel

Field help

Specifies the class name of the given login module.

Page help

More information about this page

22. Enter full pathname for custom login module in the Module class name field.

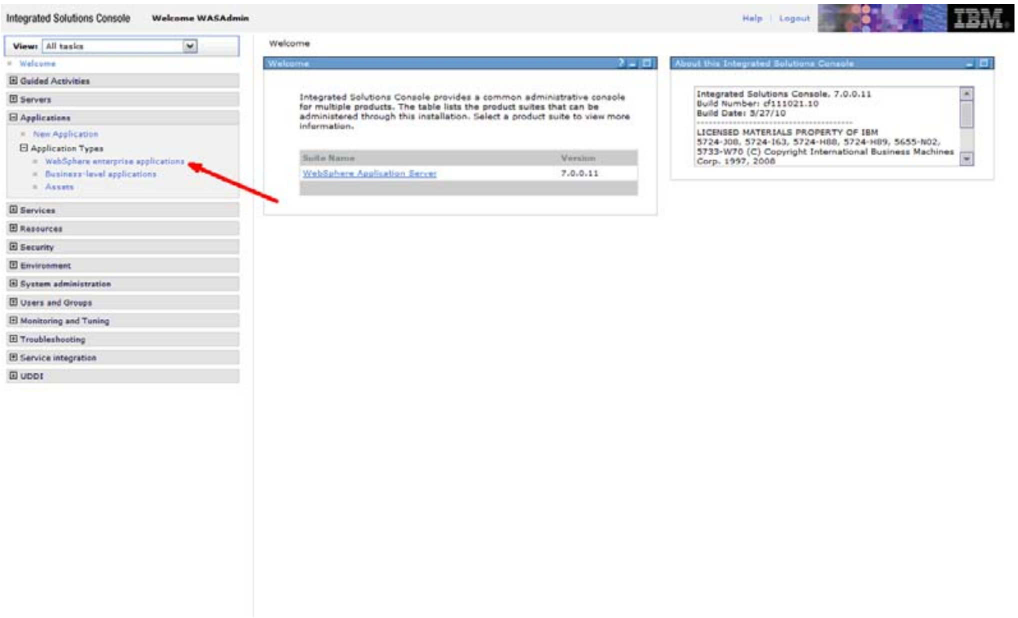
com.ibm.wssecurity.auth.module.UsernameLoginModule

Click Apply.

You must logout of the Console and restart the server for these changes to take effect.

Click the Logout link in the upper right-hand corner of the Console.

Restart the server. Refer to Step 1, Start Application Server section of this document. Use the User name and Password you created when logging in after restarting the server.



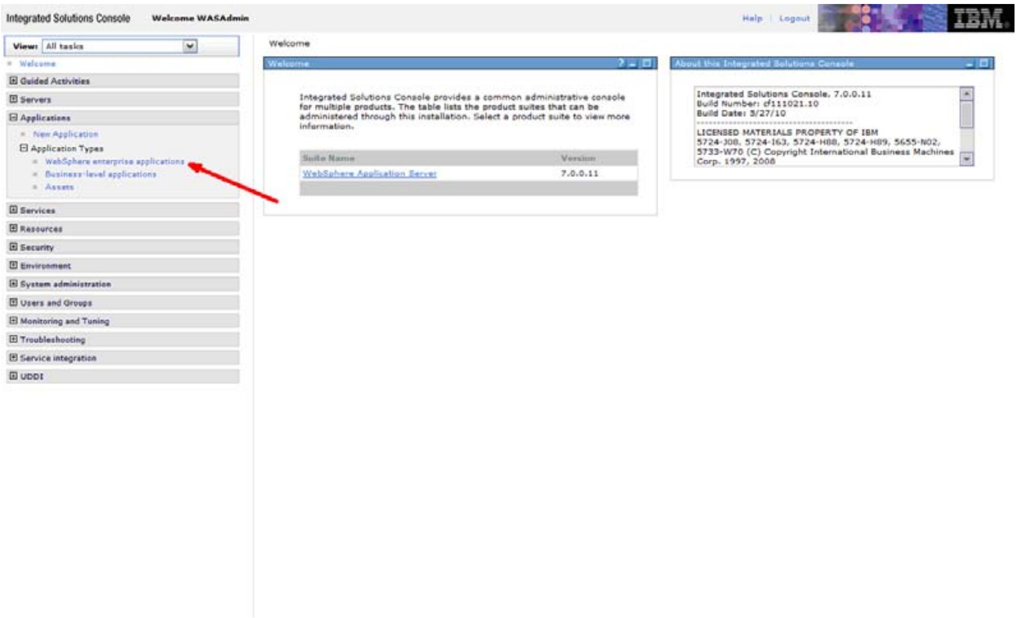
Integrated Solutions Console provides a common administrative console for multiple products. The table lists the product suites that can be administered through this installation. Select a product suite to view more information.

Suite Name	Version
WebSphere Application Server	7.0.0.11

Integrated Solutions Console, 7.0.0.11
Build Number: cf111021.10
Build Date: 3/27/10

LICENSED MATERIALS PROPERTY OF IBM
5724-J08, 5724-I63, 5724-H88, 5724-H89, 5655-N02, 5733-W70 (C) Copyright International Business Machines Corp. 1997, 2008

23. Deploy Web Services EAR file.



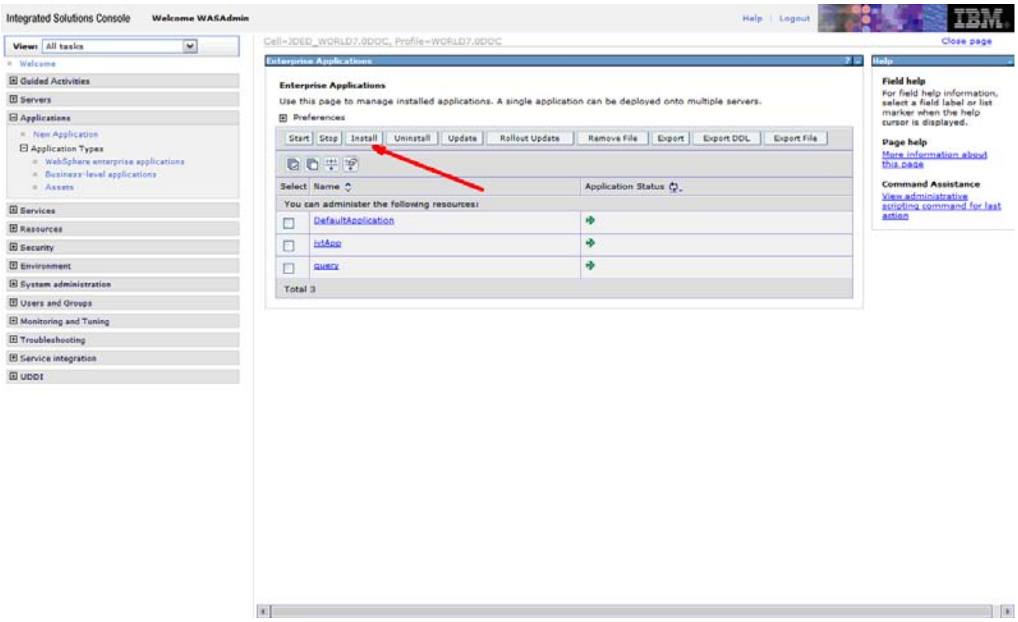
Integrated Solutions Console provides a common administrative console for multiple products. The table lists the product suites that can be administered through this installation. Select a product suite to view more information.

Suite Name	Version
WebSphere Application Server	7.0.0.11

Integrated Solutions Console, 7.0.0.11
Build Number: cf111021.10
Build Date: 3/27/10

LICENSED MATERIALS PROPERTY OF IBM
5724-J08, 5724-I63, 5724-H88, 5724-H89, 5655-N02, 5733-W70 (C) Copyright International Business Machines Corp. 1997, 2008

24. Open the Applications then click the WebSphere enterprise applications link.



Enterprise Applications

Use this page to manage installed applications. A single application can be deployed onto multiple servers.

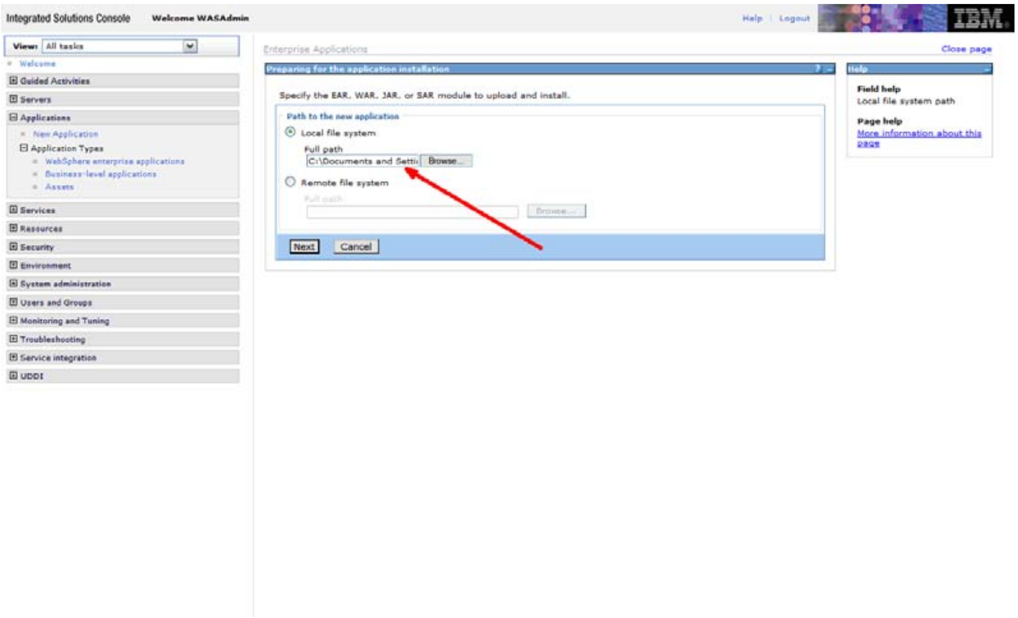
Select	Name	Application Status
You can administer the following resources:		
□	DefaultApplication	➔
□	ivtApp	➔
□	query	➔
Total 3		

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

Command Assistance
View administrative scripting command for last action

25. Click Install.



Preparing for the application installation

Specify the EAR, WAR, JAR, or SAR module to upload and install.

Path to the new application

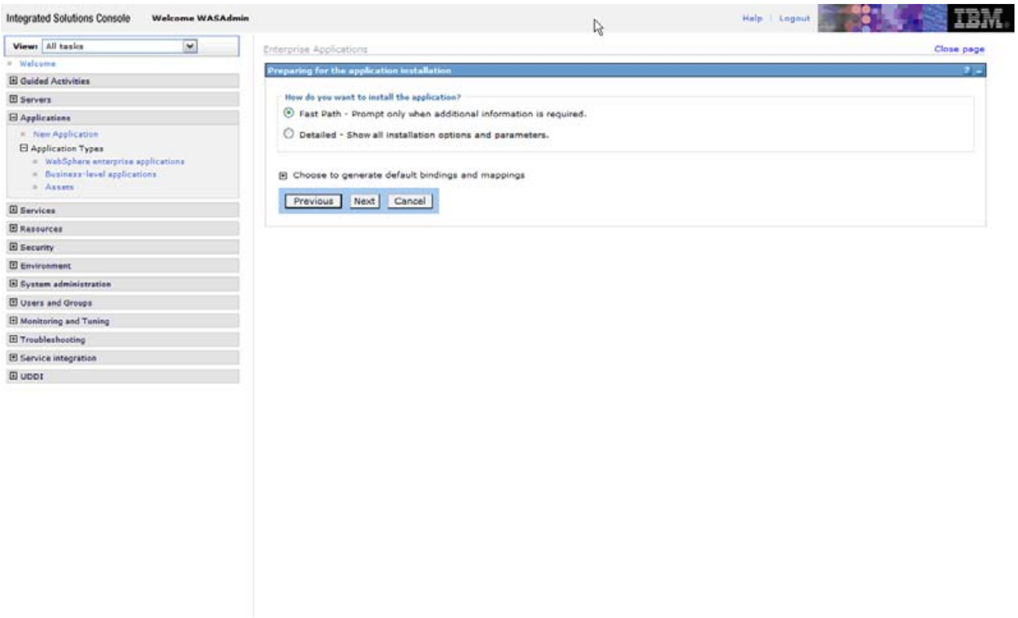
● Local file system

Full path: C:\Documents and Setti

○ Remote file system

Full path:

26. Enter the Full path to WebServices_v4_WAS.ear file and then click Next.



Preparing for the application installation

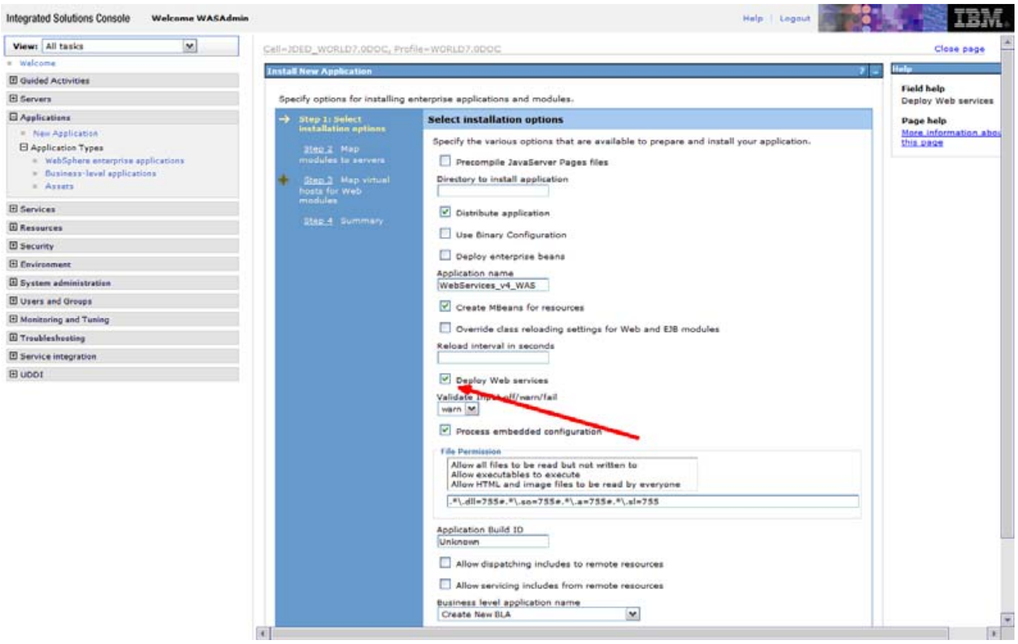
How do you want to install the application?

● Fast Path - Prompt only when additional information is required.

○ Detailed - Show all installation options and parameters.

⊞ Choose to generate default bindings and mappings

27. Click Next.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Install New Application

Specify options for installing enterprise applications and modules.

Select installation options

Specify the various options that are available to prepare and install your application.

☐ Precompile JavaServer Pages files

Directory to install application

☑ Distribute application

☐ Use Binary Configuration

☐ Deploy enterprise beans

Application name: WebServices_v4_WAS

☑ Create MBeans for resources

☐ Override class reloading settings for Web and EJB modules

Reload interval in seconds

☑ Deploy Web services

Validate Input off/warn/fail: warn

☑ Process embedded configuration

File Permission

Allow all files to be read but not written to
Allow executables to execute
Allow HTML and image files to be read by everyone

.*\.dll=755#.*\.so=755#.*\.a=755#.*\.sl=755

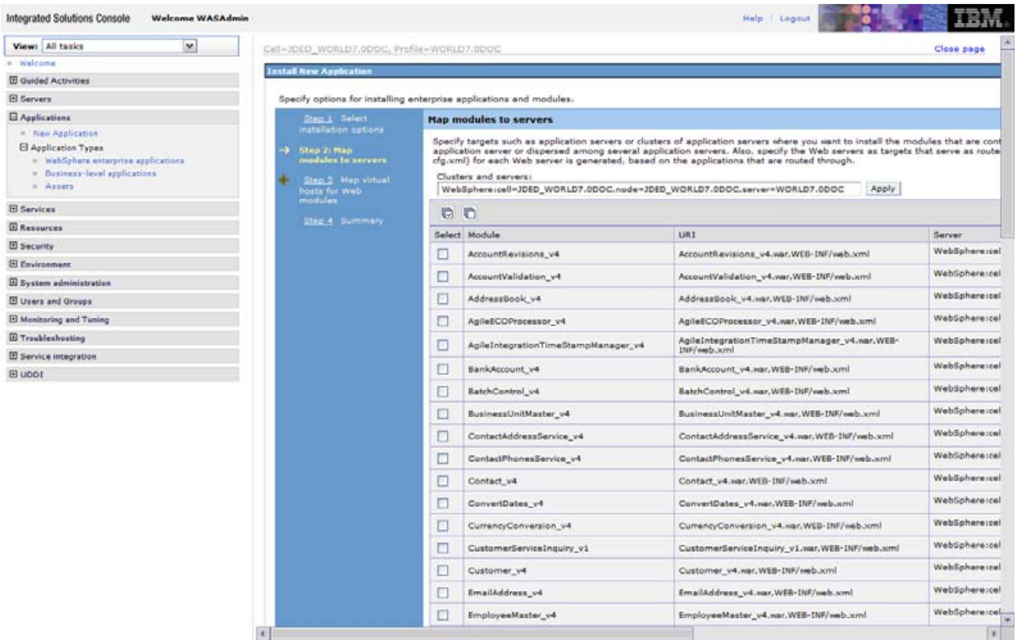
Application Build ID: Unknown

☐ Allow dispatching includes to remote resources

☐ Allow servicing includes from remote resources

Business level application name: Create New BLA

28. Select Deploy Web services and then click Next.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Install New Application

Specify options for installing enterprise applications and modules.

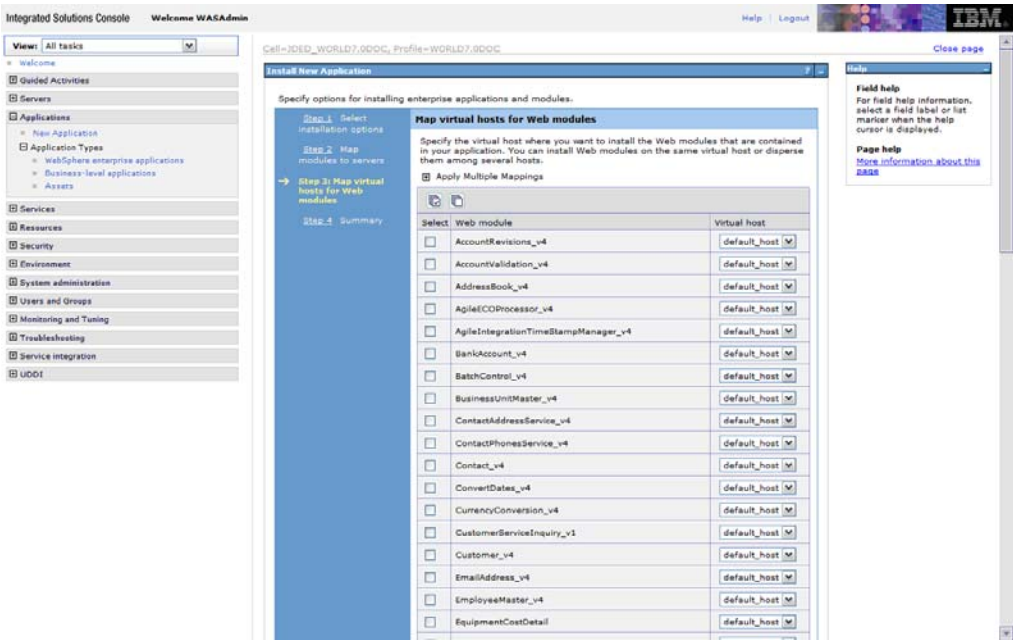
Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules that are cont application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as route cfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and servers:
WebSphere:cell=JDED_WORLD7.0DOC,node=JDED_WORLD7.0DOC,server=WORLD7.0DOC Apply

Select	Module	URI	Server
☐	AccountRevisions_v4	AccountRevisions_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	AccountValidation_v4	AccountValidation_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	AddressBook_v4	AddressBook_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	AgileECOProcessor_v4	AgileECOProcessor_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	AgileIntegrationTimeStampManager_v4	AgileIntegrationTimeStampManager_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	BankAccount_v4	BankAccount_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	BatchControl_v4	BatchControl_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	BusinessUnitMaster_v4	BusinessUnitMaster_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	ContactAddressService_v4	ContactAddressService_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	ContactPhonesService_v4	ContactPhonesService_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	Contact_v4	Contact_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	ConvertDates_v4	ConvertDates_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	CurrencyConversion_v4	CurrencyConversion_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	CustomerServiceInquiry_v1	CustomerServiceInquiry_v1.war,WEB-INF/web.xml	WebSphere:cel
☐	Customer_v4	Customer_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	EmailAddress_v4	EmailAddress_v4.war,WEB-INF/web.xml	WebSphere:cel
☐	EmployeeMaster_v4	EmployeeMaster_v4.war,WEB-INF/web.xml	WebSphere:cel

29. Click Next.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Specify options for installing enterprise applications and modules.

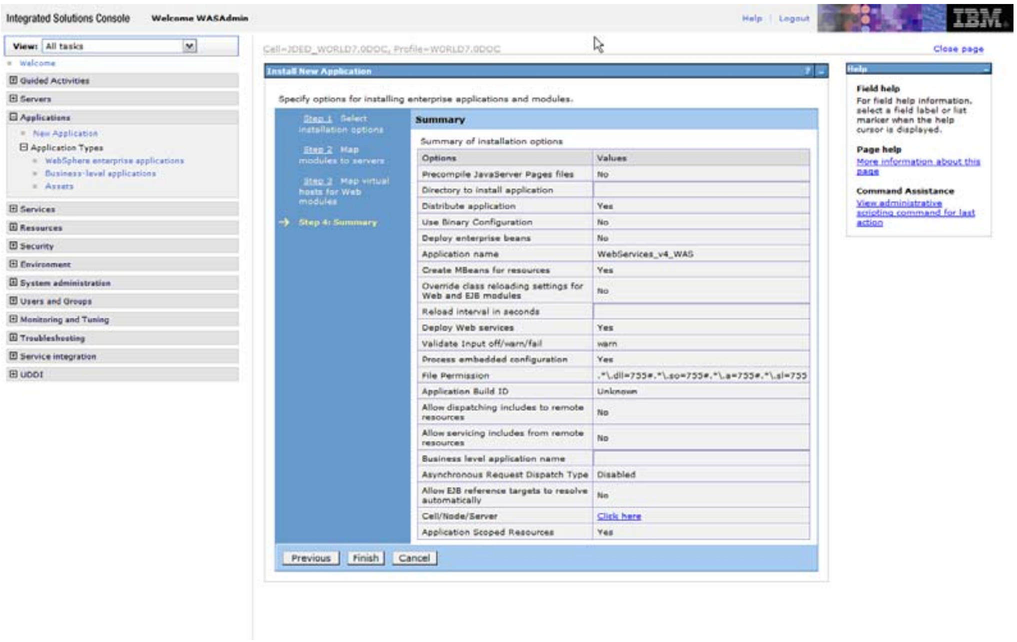
Map virtual hosts for Web modules

Specify the virtual host where you want to install the Web modules that are contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.

⊞ Apply Multiple Mappings

Select	Web module	Virtual host
□	AccountRevisions_v4	default_host
□	AccountValidation_v4	default_host
□	AddressBook_v4	default_host
□	AgileECOProcessor_v4	default_host
□	AgileIntegrationTimeStampManager_v4	default_host
□	BankAccount_v4	default_host
□	BatchControl_v4	default_host
□	BusinessUnitMaster_v4	default_host
□	ContactAddressService_v4	default_host
□	ContactPhonesService_v4	default_host
□	Contact_v4	default_host
□	ConvertDates_v4	default_host
□	CurrencyConversion_v4	default_host
□	CustomerServiceInquiry_v1	default_host
□	Customer_v4	default_host
□	EmailAddress_v4	default_host
□	EmployeeMaster_v4	default_host
□	EquipmentCostDetail	default_host

30. Click Next.


Integrated Solutions Console
Welcome WASAdmin
Help | Logout
IBM
View: All tasks
Welcome
Guided Activities
Servers
Applications
New Application
Application Types
WebSphere enterprise applications
Business-level applications
Assets
Services
Resources
Security
Environment
System administration
Users and Groups
Monitoring and Tuning
Troubleshooting
Service integration
UDDI
Close page
Install New Application
Step 1 Select installation options
Step 2 Map modules to servers
Step 3 Map virtual hosts for Web modules
Step 4: Summary
Help
Field help
For field help information, select a field label or list marker when the help cursor is displayed.
Page help
More information about this page
Command Assistance
View administrative scripting command for last action
Previous
Finish
Cancel

Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Specify options for installing enterprise applications and modules.

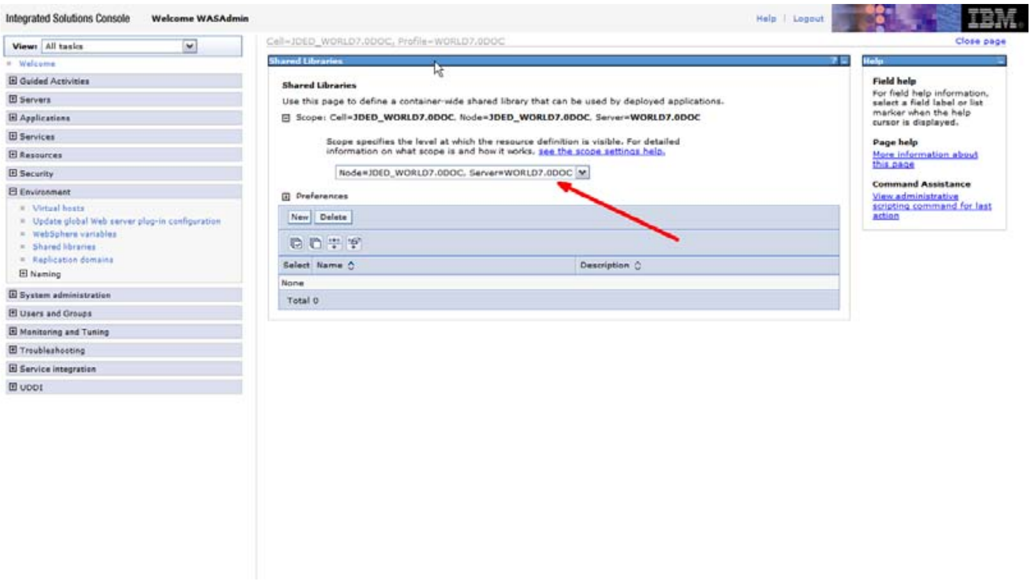
Summary

Summary of installation options

Options	Values
Precompile JavaServer Pages files	No
Directory to install application	
Distribute application	Yes
Use Binary Configuration	No
Deploy enterprise beans	No
Application name	WebServices_v4_WAS
Create MBeans for resources	Yes
Override class reloading settings for Web and EJB modules	No
Reload interval in seconds	
Deploy Web services	Yes
Validate Input off/warn/fail	warn
Process embedded configuration	Yes
File Permission	.*\.dll=755#.*\.so=755#.*\.a=755#.*\.sl=755
Application Build ID	Unknown
Allow dispatching includes to remote resources	No
Allow servicing includes from remote resources	No
Business level application name	
Asynchronous Request Dispatch Type	Disabled
Allow EJB reference targets to resolve automatically	No
Cell/Node/Server	Click here
Application Scoped Resources	Yes

31. Click Finish.

32. Create Shared Libraries.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Shared Libraries

Use this page to define a container-wide shared library that can be used by deployed applications.

Scope: Cell=JDED_WORLD7.0DOC, Node=JDED_WORLD7.0DOC, Server=WORLD7.0DOC

Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, see the scope settings help.

Node=JDED_WORLD7.0DOC, Server=WORLD7.0DOC

Preferences

Select	Name	Description
None		
Total 0		

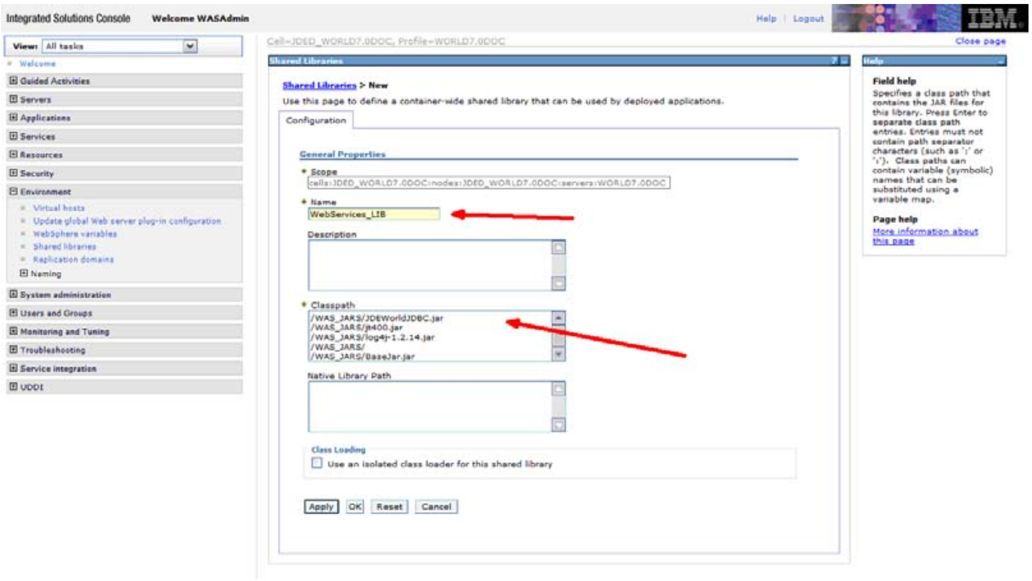
Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

Command Assistance
View administrative scripting command for last action

33. Open the Environment and then click the Shared Libraries link.

    Select the appropriate Scope from the dropdown list and then click New.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Shared Libraries > New

Use this page to define a container-wide shared library that can be used by deployed applications.

General Properties

* Scope
cells:JDED_WORLD7.0DOC:nodes:JDED_WORLD7.0DOC:servers:WORLD7.0DOC

* Name
WebServices_LIB

Description

* Classpath
/WAS_JARS/JDEWorldJDBC.jar
/WAS_JARS/jt400.jar
/WAS_JARS/log4j-1.2.14.jar
/WAS_JARS/
/WAS_JARS/BaseJar.jar

Native Library Path

Class Loading
☐ Use an isolated class loader for this shared library

Field help
Specifies a class path that contains the JAR files for this library. Press Enter to separate class path entries. Entries must not contain path separator characters (such as ';' or ':'). Class paths can contain variable (symbolic) names that can be substituted using a variable map.

Page help
More information about this page

34. Enter WebServices_LIB in the Name field.

    Enter the location of the JDEWorldJDBC.jar, jt400.jar, log4j-1.2.14.jar, and the BaseJar.jar in the Classpath field.

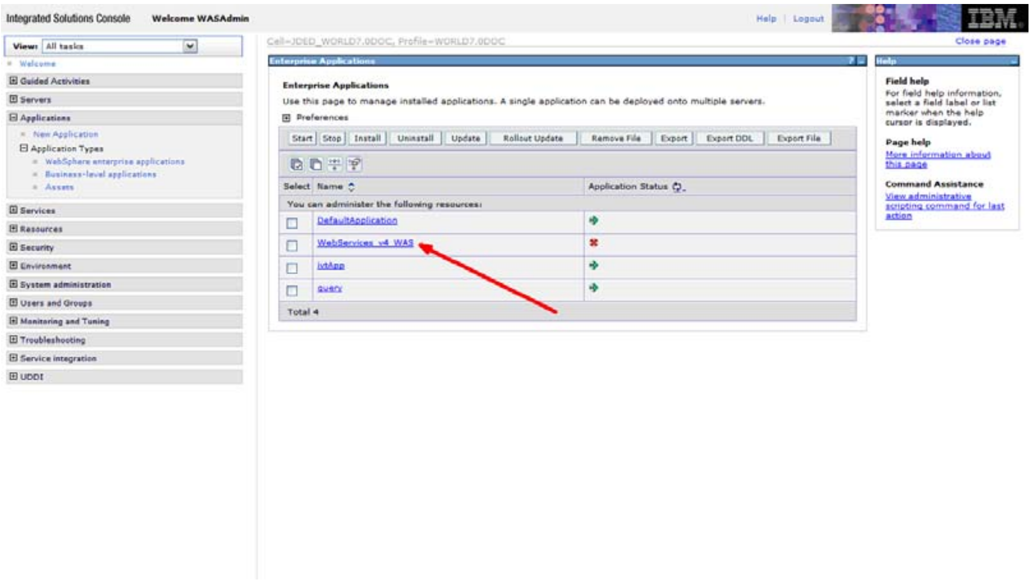
    Click OK.

35. Copy jt400.jar, JDEWorldJDBC.jar, log4j-1.2.14.jar, and BaseJar.jar to the IFS.

    Copy all four files to the directory you specified in the Classpath field.

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

36. Associate WebSeverices_LIB Shared Library with the WebServices_v4_WAS Application.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Enterprise Applications

Use this page to manage installed applications. A single application can be deployed onto multiple servers.

⊞ Preferences

Select	Name	Application Status
You can administer the following resources:		
□	DefaultApplication	➜
□	WebServices_v4_WAS	✖
□	ivtApp	➜
□	query	➜
Total 4		

Help

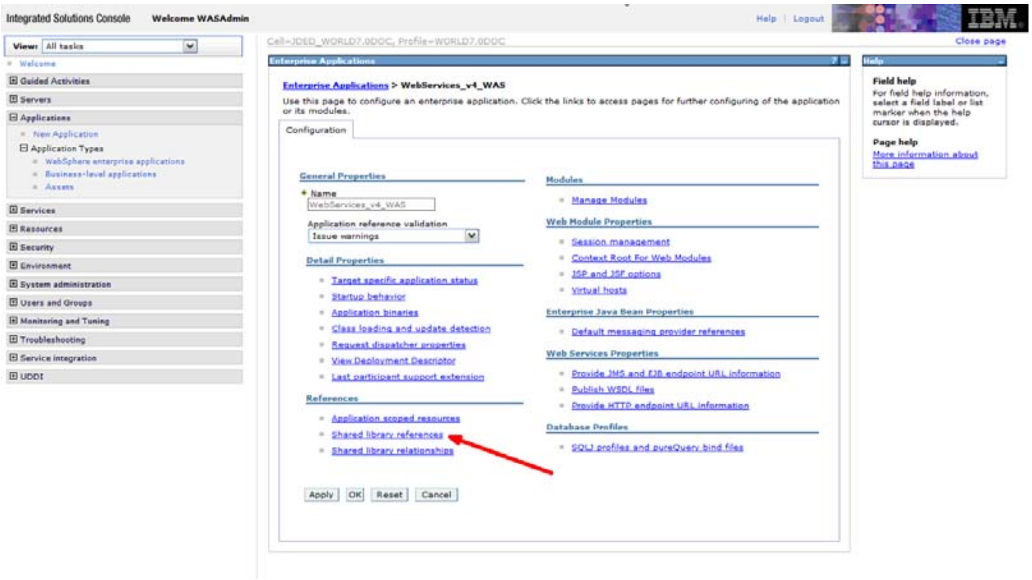
Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

Command Assistance
View administrative scripting command for last action

37. Open the Applications and then select the WebSphere enterprise applications link.

Click the WebServices_v4_WAS link.



Cell=JDED_WORLD7.0DOC, Profile=WORLD7.0DOC

Enterprise Applications

Enterprise Applications > WebServices_v4_WAS

Use this page to configure an enterprise application. Click the links to access pages for further configuring of the application or its modules.

General Properties

* Name: WebServices_v4_WAS

Application reference validation: Issue warnings

Detail Properties
- Target specific application status
- Startup behavior
- Application binaries
- Class loading and update detection
- Request dispatcher properties
- View Deployment Descriptor
- Last participant support extension

References
- Application scoped resources
- Shared library references
- Shared library relationships

Modules
- Manage Modules

Web Module Properties
- Session management
- Context Root For Web Modules
- JSP and JSF options
- Virtual hosts

Enterprise Java Bean Properties
- Default messaging provider references

Web Services Properties
- Provide JMS and EJB endpoint URL information
- Publish WSDL files
- Provide HTTP endpoint URL information

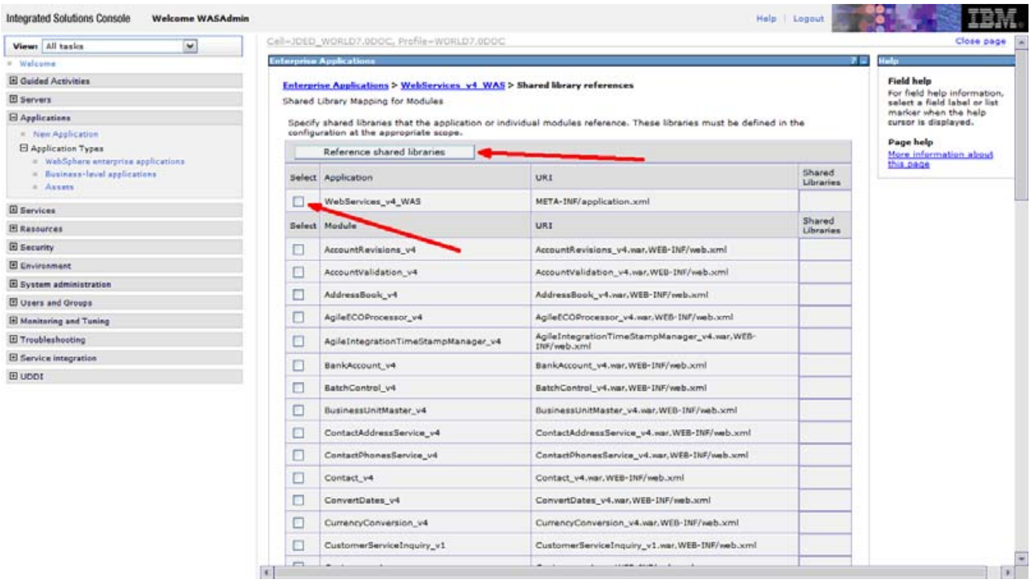
Database Profiles
- SQLJ profiles and pureQuery bind files

Help

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
More information about this page

38. Click the Shared Library References link under References.



Enterprise Applications > WebServices_v4_WAS > Shared library references

Shared Library Mapping for Modules

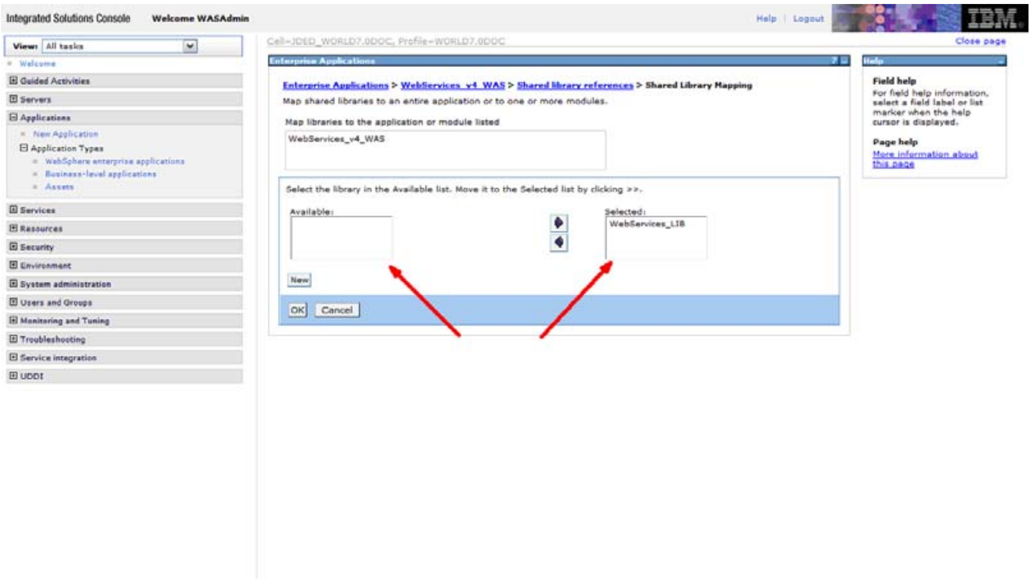
Specify shared libraries that the application or individual modules reference. These libraries must be defined in the configuration at the appropriate scope.

Reference shared libraries

Select	Application	URI	Shared Libraries
□	WebServices_v4_WAS	META-INF/application.xml	
Select	**Module**	**URI**	**Shared Libraries**
□	AccountRevisions_v4	AccountRevisions_v4.war,WEB-INF/web.xml	
□	AccountValidation_v4	AccountValidation_v4.war,WEB-INF/web.xml	
□	AddressBook_v4	AddressBook_v4.war,WEB-INF/web.xml	
□	AgileECOProcessor_v4	AgileECOProcessor_v4.war,WEB-INF/web.xml	
□	AgileIntegrationTimeStampManager_v4	AgileIntegrationTimeStampManager_v4.war,WEB-INF/web.xml	
□	BankAccount_v4	BankAccount_v4.war,WEB-INF/web.xml	
□	BatchControl_v4	BatchControl_v4.war,WEB-INF/web.xml	
□	BusinessUnitMaster_v4	BusinessUnitMaster_v4.war,WEB-INF/web.xml	
□	ContactAddressService_v4	ContactAddressService_v4.war,WEB-INF/web.xml	
□	ContactPhonesService_v4	ContactPhonesService_v4.war,WEB-INF/web.xml	
□	Contact_v4	Contact_v4.war,WEB-INF/web.xml	
□	ConvertDates_v4	ConvertDates_v4.war,WEB-INF/web.xml	
□	CurrencyConversion_v4	CurrencyConversion_v4.war,WEB-INF/web.xml	
□	CustomerServiceInquiry_v1	CustomerServiceInquiry_v1.war,WEB-INF/web.xml	

39. Select the WebServices_v4_WAS application box.

Click Reference Shared Libraries.



Enterprise Applications > WebServices_v4_WAS > Shared library references > Shared Library Mapping

Map shared libraries to an entire application or to one or more modules.

Map libraries to the application or module listed

WebServices_v4_WAS

Select the library in the Available list. Move it to the Selected list by clicking >>.

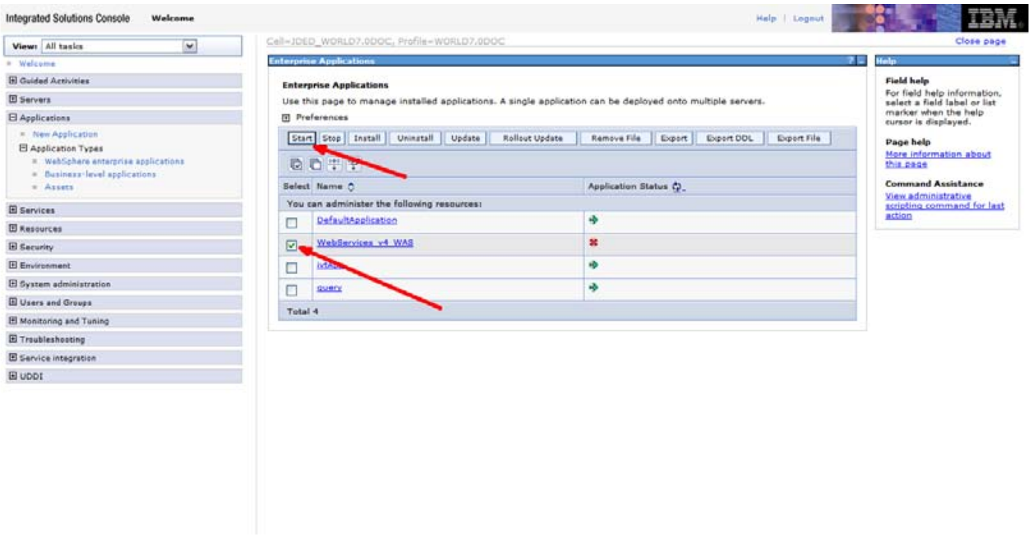
Available:

Selected: WebServices_LIB

40. Select the WebServices_LIB Shared Library Reference using the arrow button

Click OK.

41. Start WebServices_v4_WAS application



Enterprise Applications

Use this page to manage installed applications. A single application can be deployed onto multiple servers.

⊞ Preferences

Select	Name	Application Status
You can administer the following resources:		
☐	DefaultApplication	➔
☑	WebServices_v4_WAS	✖
☐	ivtA	➔
☐	query	➔
Total 4		

Field help

For field help information, select a field label or list marker when the help cursor is displayed.

Page help

More information about this page

Command Assistance

View administrative scripting command for last action

42. Open Applications and then select the WebSphere enterprise applications link.

Select the WebServices_v4_WAS application.

Click Start.

Appendices

Appendix A – Install WebLogic Application Server

To install WebLogic Application Server

1. Download Required Jars:

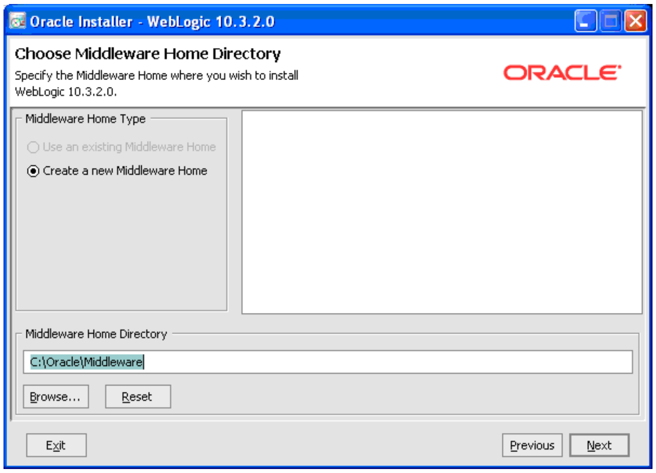
   jt400.jar – retrieve from: http://jt400.sourceforge.net/

   log4j-1.2.14.jar – retrieve from:
   http://logging.apache.org/log4j/1.2/download.html

   WebLogic Installation Instructions:

2. 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

Specify the Middleware Home where you wish to install WebLogic 10.3.2.0.

Middleware Home Type

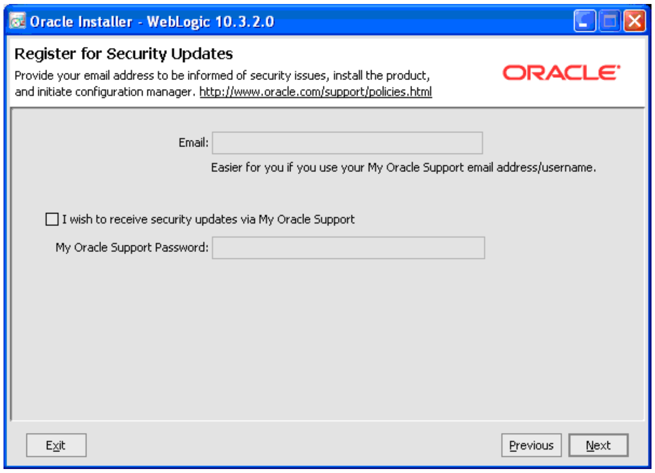
○ Use an existing Middleware Home

● Create a new Middleware Home

Middleware Home Directory

C:\Oracle\Middleware

3. Click Next.



Register for Security Updates

Provide your email address to be informed of security issues, install the product, and initiate configuration manager. http://www.oracle.com/support/policies.html

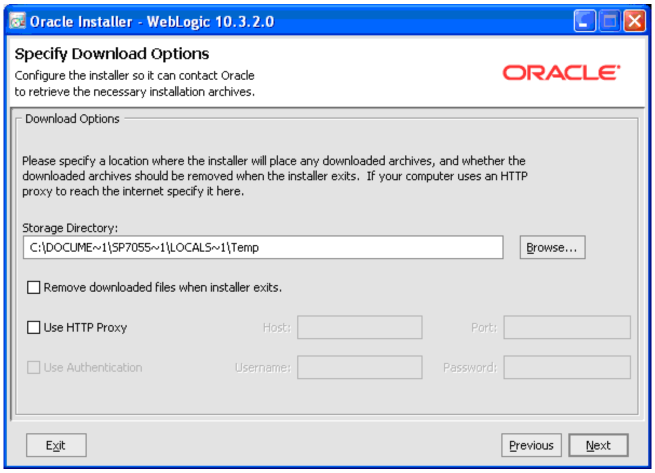
Email:

Easier for you if you use your My Oracle Support email address/username.

□ I wish to receive security updates via My Oracle Support

My Oracle Support Password:

4. Click Next.



Specify Download Options

Configure the installer so it can contact Oracle to retrieve the necessary installation archives.

Download Options

Please specify a location where the installer will place any downloaded archives, and whether the downloaded archives should be removed when the installer exits. If your computer uses an HTTP proxy to reach the internet specify it here.

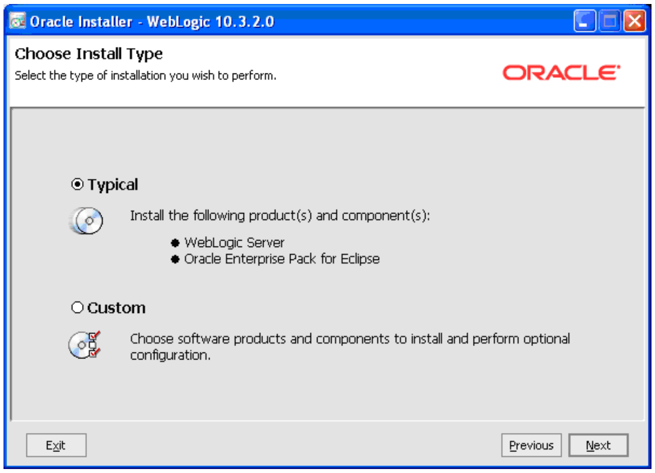
Storage Directory:
C:\DOCUME~1\SP7055~1\LOCALS~1\Temp

□ Remove downloaded files when installer exits.

□ Use HTTP Proxy Host: Port:

□ Use Authentication Username: Password:

5. Click Next.



Choose Install Type

Select the type of installation you wish to perform.

● Typical

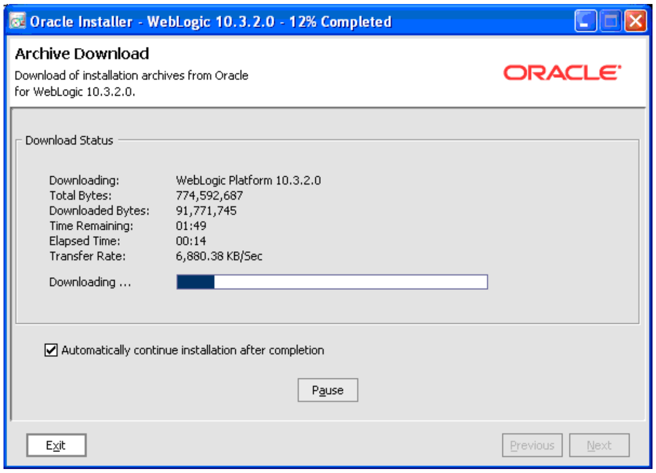
Install the following product(s) and component(s):

- WebLogic Server
- Oracle Enterprise Pack for Eclipse

○ Custom

Choose software products and components to install and perform optional configuration.

6. Select Typical and then click Next.



Oracle Installer - WebLogic 10.3.2.0 - 12% Completed

Archive Download

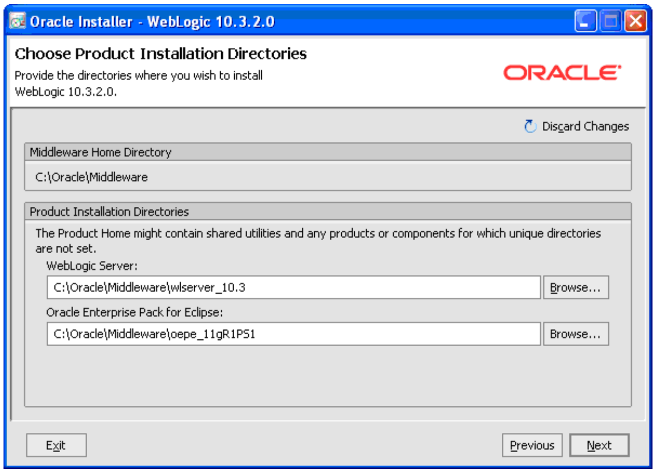
Download of installation archives from Oracle for WebLogic 10.3.2.0.

Download Status

```
Downloading:        WebLogic Platform 10.3.2.0
Total Bytes:        774,592,687
Downloaded Bytes:   91,771,745
Time Remaining:     01:49
Elapsed Time:       00:14
Transfer Rate:      6,880.38 KB/Sec
Downloading ...
```

☑ Automatically continue installation after completion

7. Click Next.



Oracle Installer - WebLogic 10.3.2.0

Choose Product Installation Directories

Provide the directories where you wish to install WebLogic 10.3.2.0.

Middleware Home Directory

C:\Oracle\Middleware

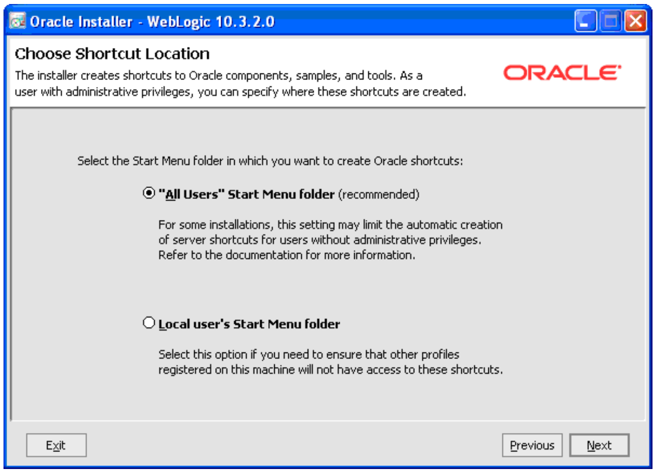
Product Installation Directories

The Product Home might contain shared utilities and any products or components for which unique directories are not set.

WebLogic Server: C:\Oracle\Middleware\wlserver_10.3

Oracle Enterprise Pack for Eclipse: C:\Oracle\Middleware\oepe_11gR1PS1

8. Click Next.



Oracle Installer - WebLogic 10.3.2.0

Choose Shortcut Location

The installer creates shortcuts to Oracle components, samples, and tools. As a user with administrative privileges, you can specify where these shortcuts are created.

Select the Start Menu folder in which you want to create Oracle shortcuts:

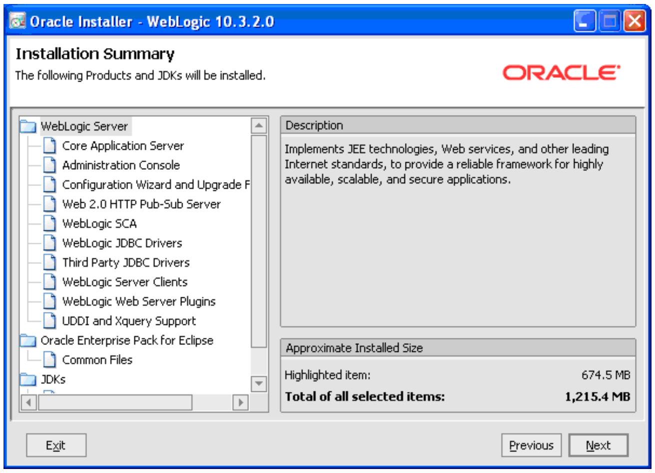
● **"All Users" Start Menu folder** (recommended)

For some installations, this setting may limit the automatic creation of server shortcuts for users without administrative privileges. Refer to the documentation for more information.

○ **Local user's Start Menu folder**

Select this option if you need to ensure that other profiles registered on this machine will not have access to these shortcuts.

9. Click Next.



Oracle Installer - WebLogic 10.3.2.0

Installation Summary

The following Products and JDKs will be installed.

- WebLogic Server
  - Core Application Server
  - Administration Console
  - Configuration Wizard and Upgrade F
  - Web 2.0 HTTP Pub-Sub Server
  - WebLogic SCA
  - WebLogic JDBC Drivers
  - Third Party JDBC Drivers
  - WebLogic Server Clients
  - WebLogic Web Server Plugins
  - UDDI and Xquery Support
- Oracle Enterprise Pack for Eclipse
  - Common Files
- JDKs

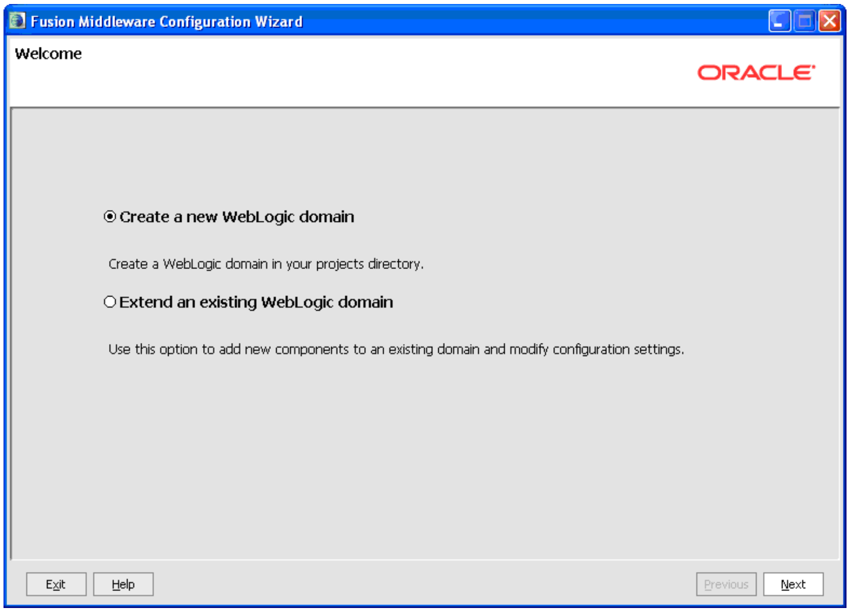
Description

Implements JEE technologies, Web services, and other leading Internet standards, to provide a reliable framework for highly available, scalable, and secure applications.

Approximate Installed Size

Highlighted item:	674.5 MB
Total of all selected items:	**1,215.4 MB**

10. Configure the base_domain.



Fusion Middleware Configuration Wizard

Welcome

◉ Create a new WebLogic domain

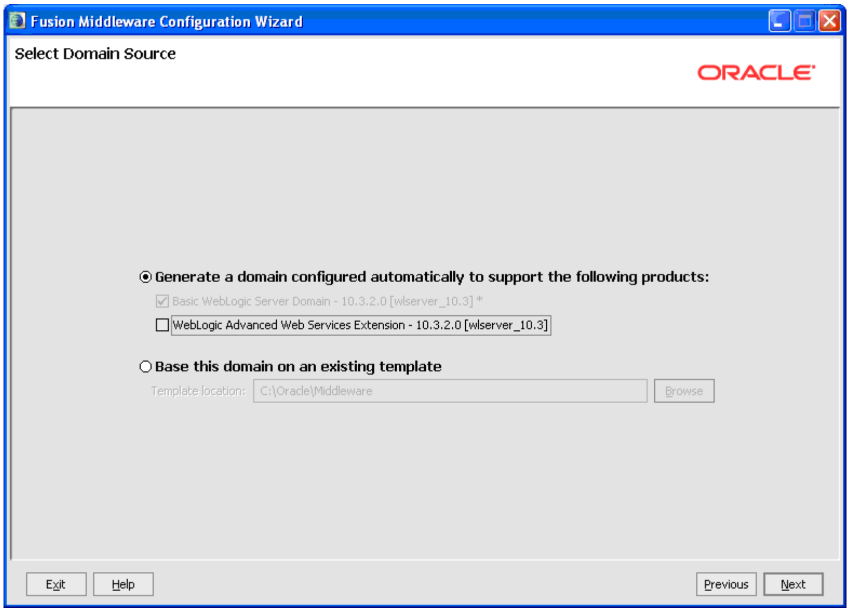
Create a WebLogic domain in your projects directory.

○ Extend an existing WebLogic domain

Use this option to add new components to an existing domain and modify configuration settings.

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

Click Next.



Select Domain Source

● Generate a domain configured automatically to support the following products:

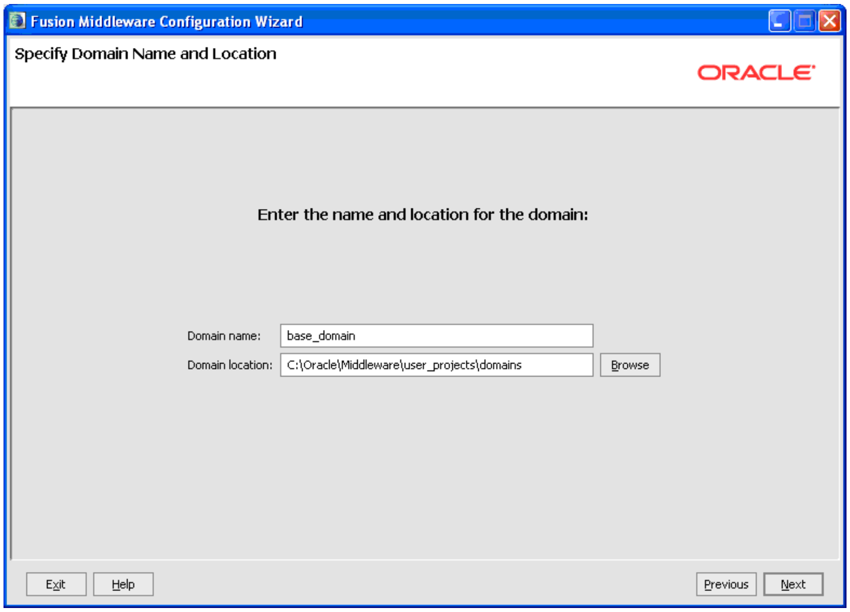
☑ Basic WebLogic Server Domain - 10.3.2.0 [wlserver_10.3] *

□ WebLogic Advanced Web Services Extension - 10.3.2.0 [wlserver_10.3]

○ Base this domain on an existing template

Template location: C:\Oracle\Middleware Browse

11. Click Next.



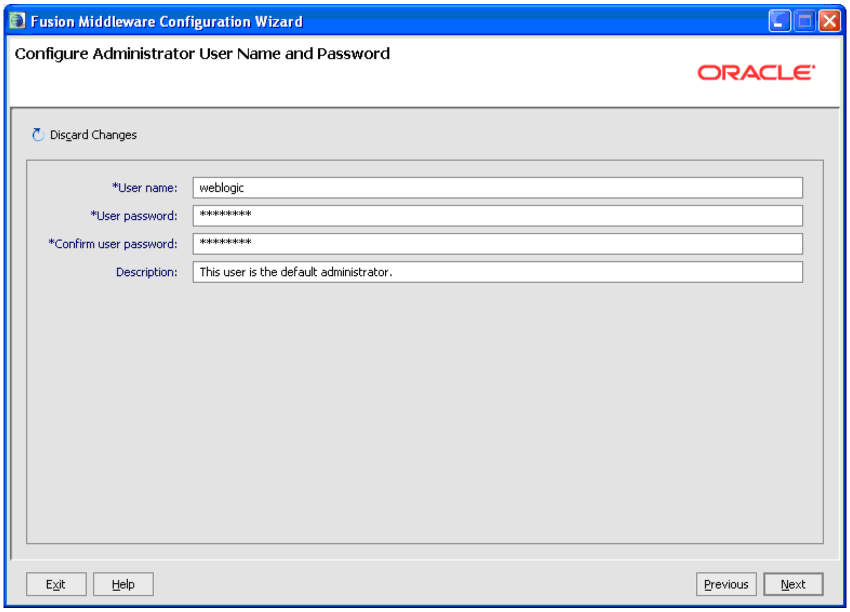
Specify Domain Name and Location

Enter the name and location for the domain:

Domain name: base_domain

Domain location: C:\Oracle\Middleware\user_projects\domains

12. Click Next.



Configure Administrator User Name and Password

*User name: weblogic

*User password: ********

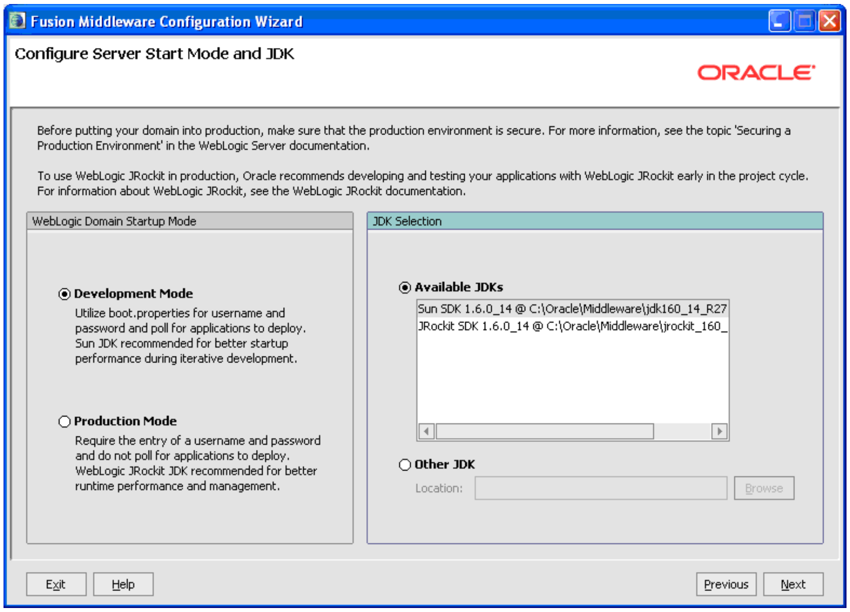
*Confirm user password: ********

Description: This user is the default administrator.

13. User Password:

    “welcome1”

    Click Next.


Fusion Middleware Configuration Wizard
ORACLE
WebLogic Domain Startup Mode
JDK Selection
Location:
Browse
Exit
Help
Previous
Next

Configure Server Start Mode and JDK

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.

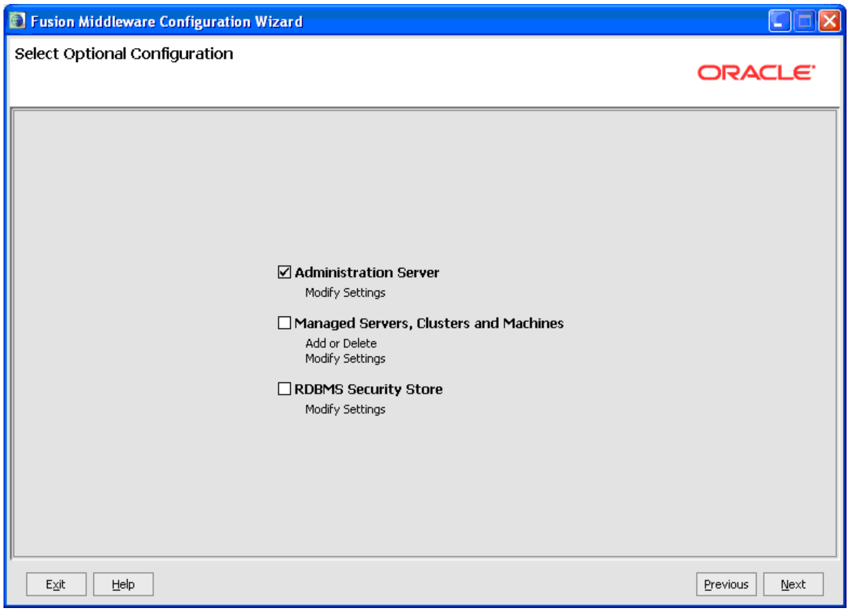
● **Development Mode**
Utilize boot.properties for username and password and poll for applications to deploy. Sun JDK recommended for better startup performance during iterative development.

○ **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.

● **Available JDKs**
Sun SDK 1.6.0_14 @ C:\Oracle\Middleware\jdk160_14_R27
JRockit SDK 1.6.0_14 @ C:\Oracle\Middleware\jrockit_160_

○ **Other JDK**

14. Click Next.



Fusion Middleware Configuration Wizard

Select Optional Configuration

☑ Administration Server
Modify Settings

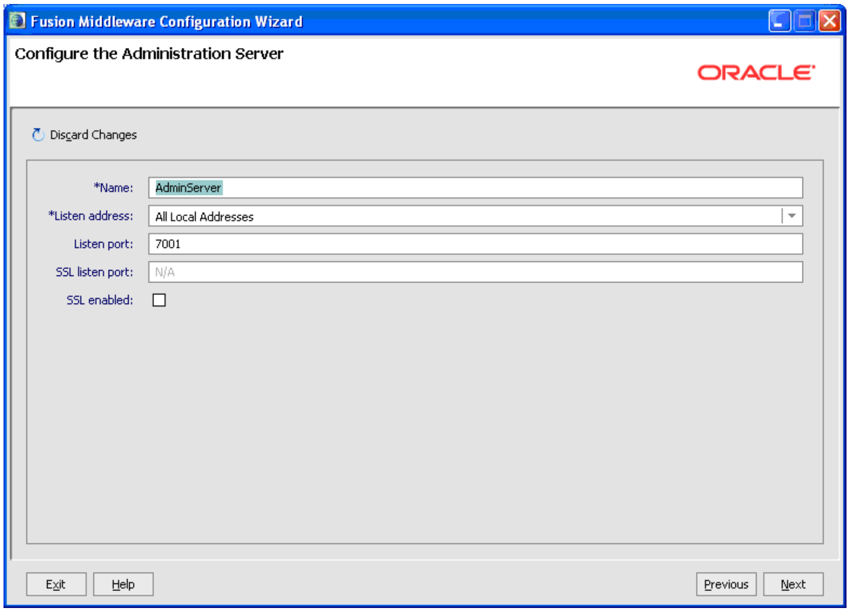
□ Managed Servers, Clusters and Machines
Add or Delete
Modify Settings

□ RDBMS Security Store
Modify Settings

15. Select:

    Administration Server

    Click Next.



Fusion Middleware Configuration Wizard

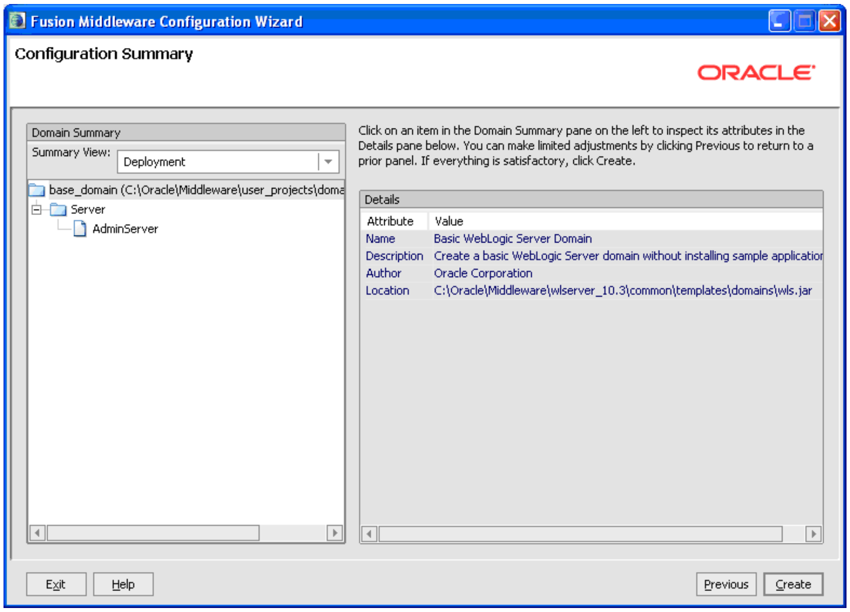
Configure the Administration Server

Discard Changes

*Name: AdminServer
*Listen address: All Local Addresses
Listen port: 7001
SSL listen port: N/A
SSL enabled: □

16. Use defaults.

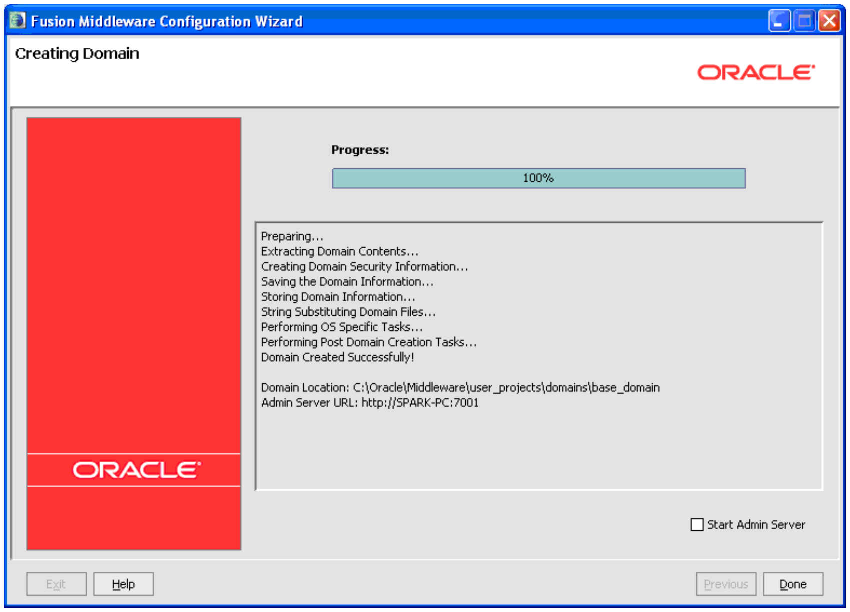
    Click Next.



Click on an item in the Domain Summary pane on the left to inspect its attributes in the Details pane below. You can make limited adjustments by clicking Previous to return to a prior panel. If everything is satisfactory, click Create.

Attribute	Value
Name	Basic WebLogic Server Domain
Description	Create a basic WebLogic Server domain without installing sample applicatior
Author	Oracle Corporation
Location	C:\Oracle\Middleware\wlserver_10.3\common\templates\domains\wls.jar

17. Click Create.



```
Preparing...
Extracting Domain Contents...
Creating Domain Security Information...
Saving the Domain Information...
Storing Domain Information...
String Substituting Domain Files...
Performing OS Specific Tasks...
Performing Post Domain Creation Tasks...
Domain Created Successfully!

Domain Location: C:\Oracle\Middleware\user_projects\domains\base_domain
Admin Server URL: http://SPARK-PC:7001
```

18. Copy jt400.jar, JDEWorldJDBC.jar, log4j-1.2.14.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.

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

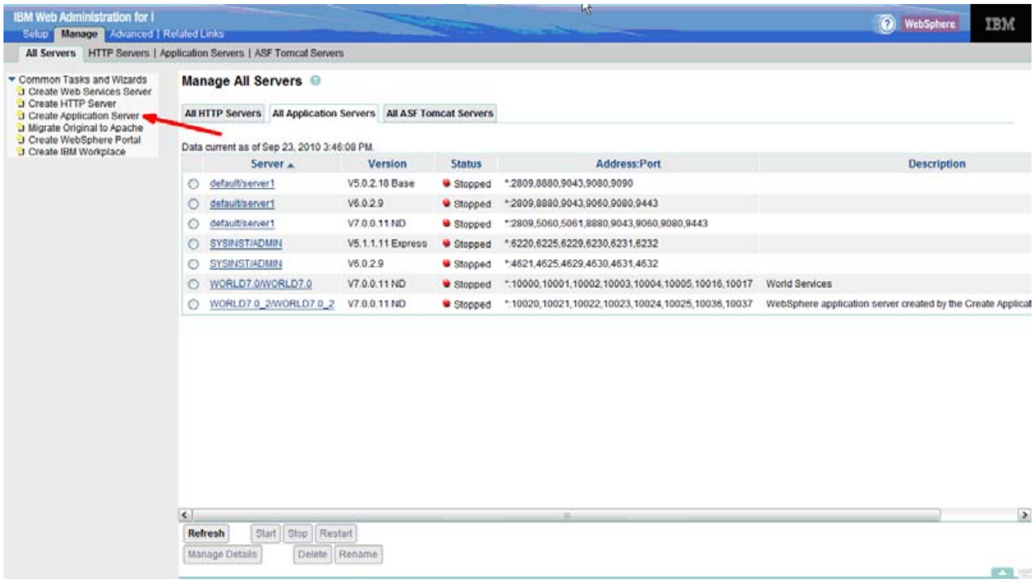
Copy the MJF (e.g. WorldAuthenticator.jar) to <WL_HOME>/server/lib/mbeantypes.

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

Appendix B – Create WebSphere Application Server

To create Application Servers in WebSphere

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

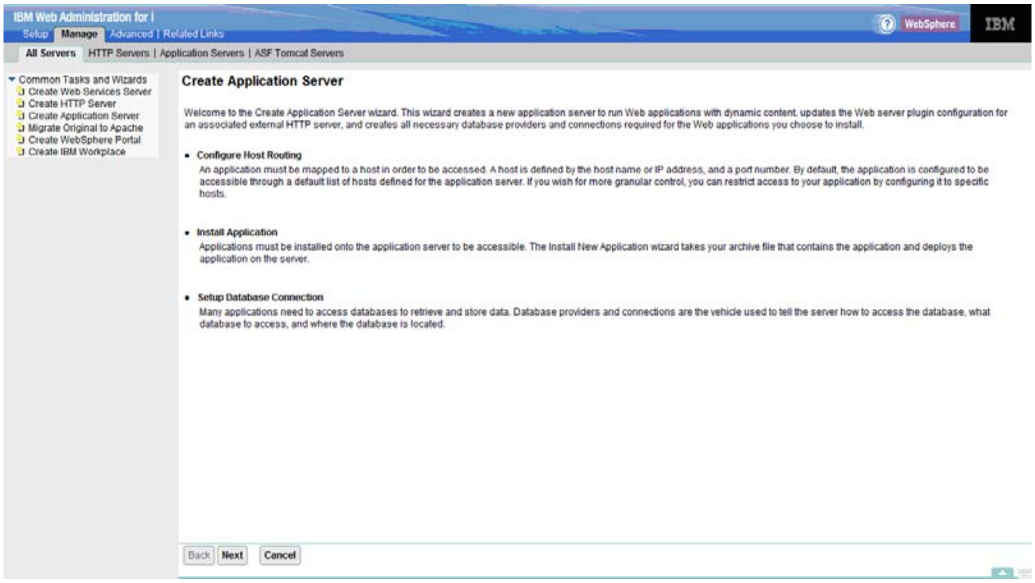


Manage All Servers

Data current as of Sep 23, 2010 3:46:08 PM.

	Server ▲	Version	Status	Address:Port	Description
○	default/server1	V5.0.2.18 Base	● Stopped	*:2809,8880,9043,9080,9090	
○	default/server1	V6.0.2.9	● Stopped	*:2809,8880,9043,9060,9080,9443	
○	default/server1	V7.0.0.11 ND	● Stopped	*:2809,5060,5061,8880,9043,9060,9080,9443	
○	SYSINST/ADMIN	V5.1.1.11 Express	● Stopped	*:6220,6225,6229,6230,6231,6232	
○	SYSINST/ADMIN	V6.0.2.9	● Stopped	*:4621,4625,4629,4630,4631,4632	
○	WORLD7.0/WORLD7.0	V7.0.0.11 ND	● Stopped	*:10000,10001,10002,10003,10004,10005,10016,10017	World Services
○	WORLD7.0_2/WORLD7.0_2	V7.0.0.11 ND	● Stopped	*:10020,10021,10022,10023,10024,10025,10036,10037	WebSphere application server created by the Create Applicat

2. Click Create Application Server.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

Create Application Server

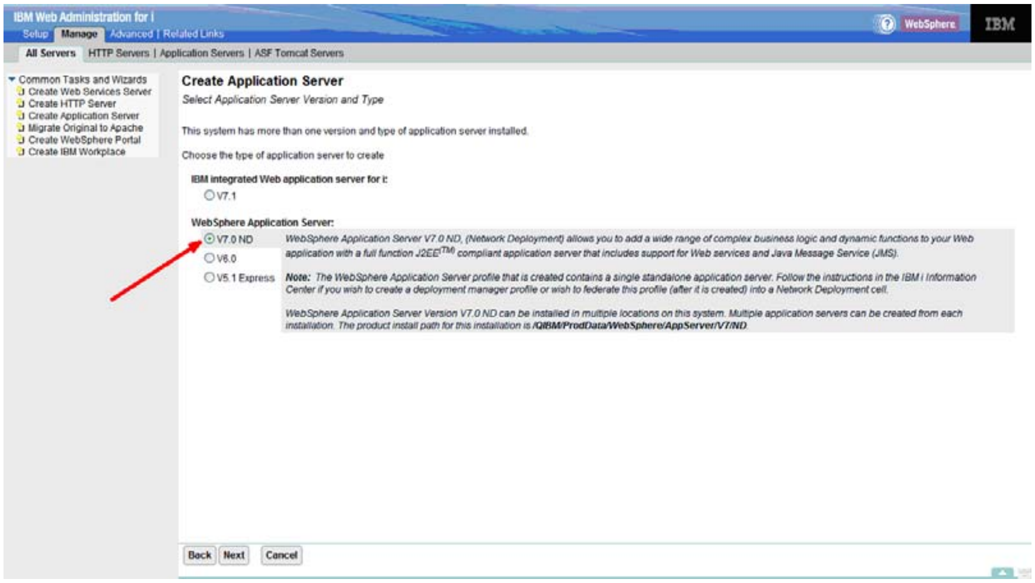
Welcome to the Create Application Server wizard. This wizard creates a new application server to run Web applications with dynamic content, updates the Web server plugin configuration for an associated external HTTP server, and creates all necessary database providers and connections required for the Web applications you choose to install.

- **Configure Host Routing**
  An application must be mapped to a host in order to be accessed. A host is defined by the host name or IP address, and a port number. By default, the application is configured to be accessible through a default list of hosts defined for the application server. If you wish for more granular control, you can restrict access to your application by configuring it to specific hosts.

- **Install Application**
  Applications must be installed onto the application server to be accessible. The Install New Application wizard takes your archive file that contains the application and deploys the application on the server.

- **Setup Database Connection**
  Many applications need to access databases to retrieve and store data. Database providers and connections are the vehicle used to tell the server how to access the database, what database to access, and where the database is located.

3. Click Next.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

Create Application Server

Select Application Server Version and Type

This system has more than one version and type of application server installed.

Choose the type of application server to create

IBM integrated Web application server for i:

○ V7.1

WebSphere Application Server:

● V7.0 ND

○ V6.0

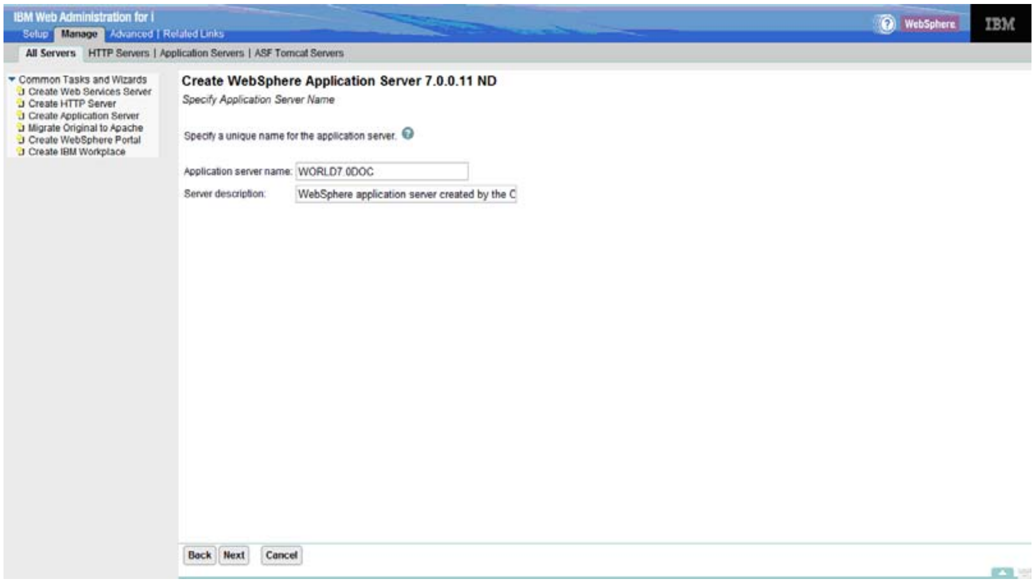
○ V5.1 Express

WebSphere Application Server V7.0 ND, (Network Deployment) allows you to add a wide range of complex business logic and dynamic functions to your Web application with a full function J2EE(TM) compliant application server that includes support for Web services and Java Message Service (JMS).

Note: *The WebSphere Application Server profile that is created contains a single standalone application server. Follow the instructions in the IBM i Information Center if you wish to create a deployment manager profile or wish to federate this profile (after it is created) into a Network Deployment cell.*

WebSphere Application Server Version V7.0 ND can be installed in multiple locations on this system. Multiple application servers can be created from each installation. The product install path for this installation is ***/QIBM/ProdData/WebSphere/AppServer/V7/ND***

4. Select V7.0 ND and then click Next.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

Create WebSphere Application Server 7.0.0.11 ND

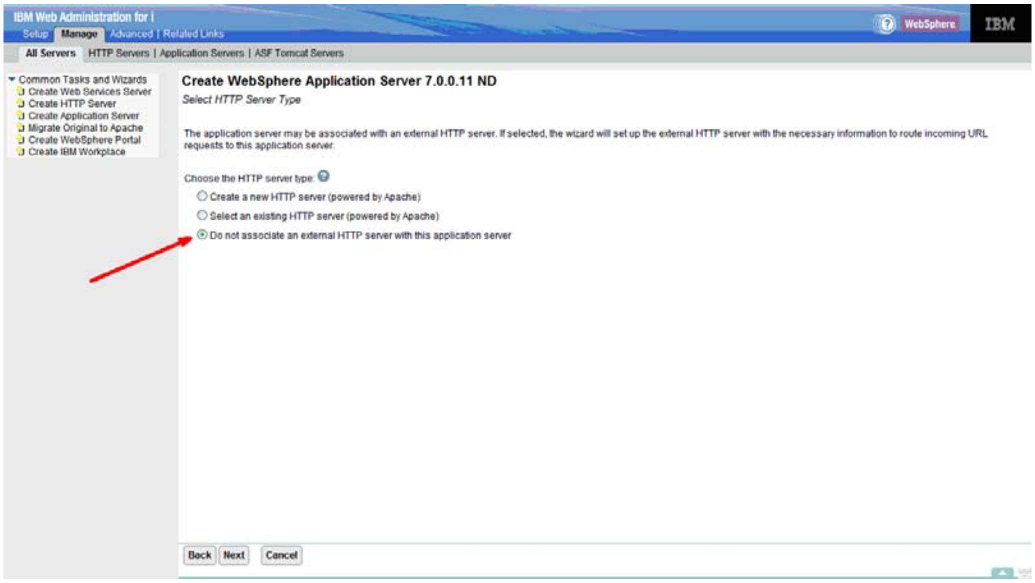
Specify Application Server Name

Specify a unique name for the application server.

Application server name: WORLD7 0DOC

Server description: WebSphere application server created by the C

5. Enter Application Server Name and Description and then click Next.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

Create WebSphere Application Server 7.0.0.11 ND

Select HTTP Server Type

The application server may be associated with an external HTTP server. If selected, the wizard will set up the external HTTP server with the necessary information to route incoming URL requests to this application server.

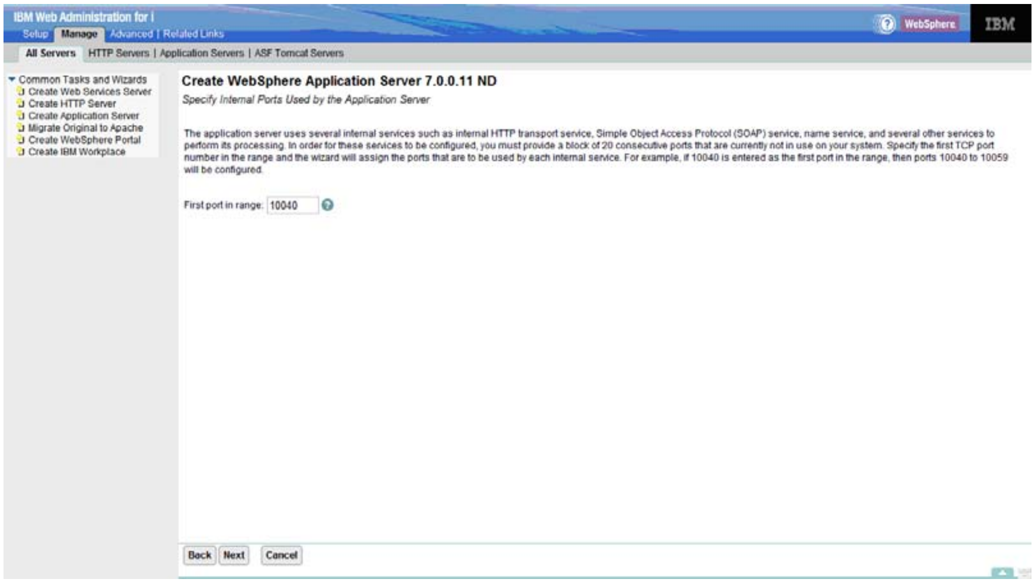
Choose the HTTP server type:

○ Create a new HTTP server (powered by Apache)

○ Select an existing HTTP server (powered by Apache)

● Do not associate an external HTTP server with this application server

6. Select Do not associate an external HTTP server with this application server and then click Next.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

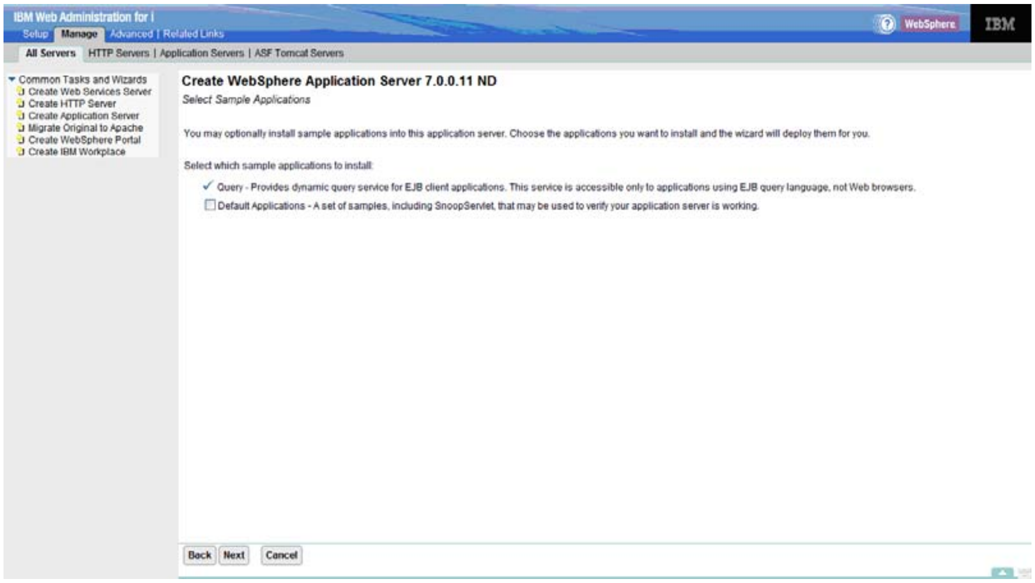
Create WebSphere Application Server 7.0.0.11 ND

Specify Internal Ports Used by the Application Server

The application server uses several internal services such as internal HTTP transport service, Simple Object Access Protocol (SOAP) service, name service, and several other services to perform its processing. In order for these services to be configured, you must provide a block of 20 consecutive ports that are currently not in use on your system. Specify the first TCP port number in the range and the wizard will assign the ports that are to be used by each internal service. For example, if 10040 is entered as the first port in the range, then ports 10040 to 10059 will be configured.

First port in range: 10040

7. Click Next.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

Create WebSphere Application Server 7.0.0.11 ND

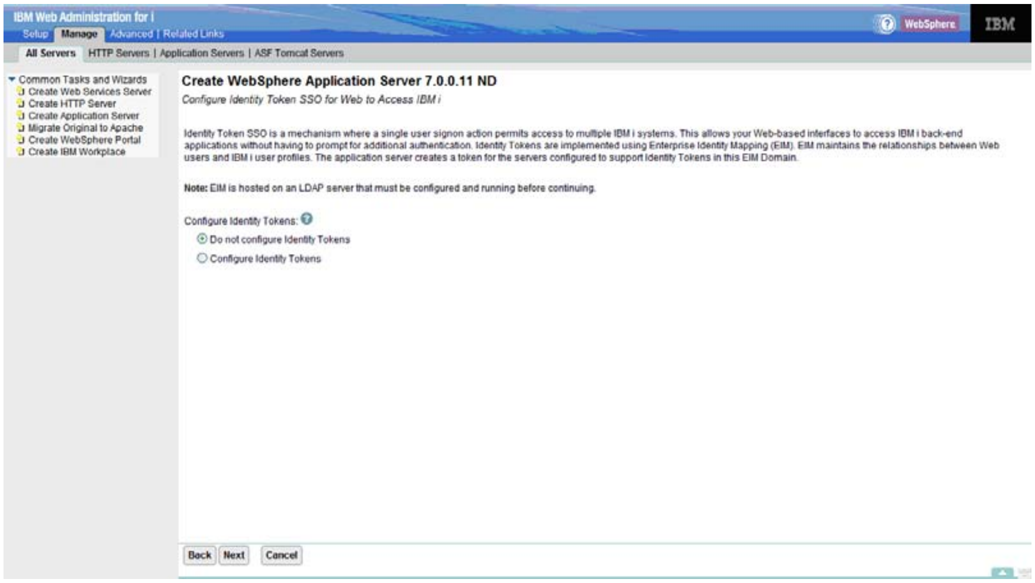
Select Sample Applications

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.

8. Click Next.


IBM Web Administration for i
Setup
Manage
Advanced | Related Links
WebSphere
IBM
All Servers
HTTP Servers | Application Servers | ASF Tomcat Servers
Common Tasks and Wizards
Create Web Services Server
Create HTTP Server
Create Application Server
Migrate Original to Apache
Create WebSphere Portal
Create IBM Workplace
Back
Next
Cancel

Create WebSphere Application Server 7.0.0.11 ND

Configure Identity Token SSO for Web to Access IBM i

Identity Token SSO is a mechanism where a single user signon action permits access to multiple IBM i systems. This allows your Web-based interfaces to access IBM i back-end applications without having to prompt for additional authentication. Identity Tokens are implemented using Enterprise Identity Mapping (EIM). EIM maintains the relationships between Web users and IBM i user profiles. The application server creates a token for the servers configured to support Identity Tokens in this EIM Domain.

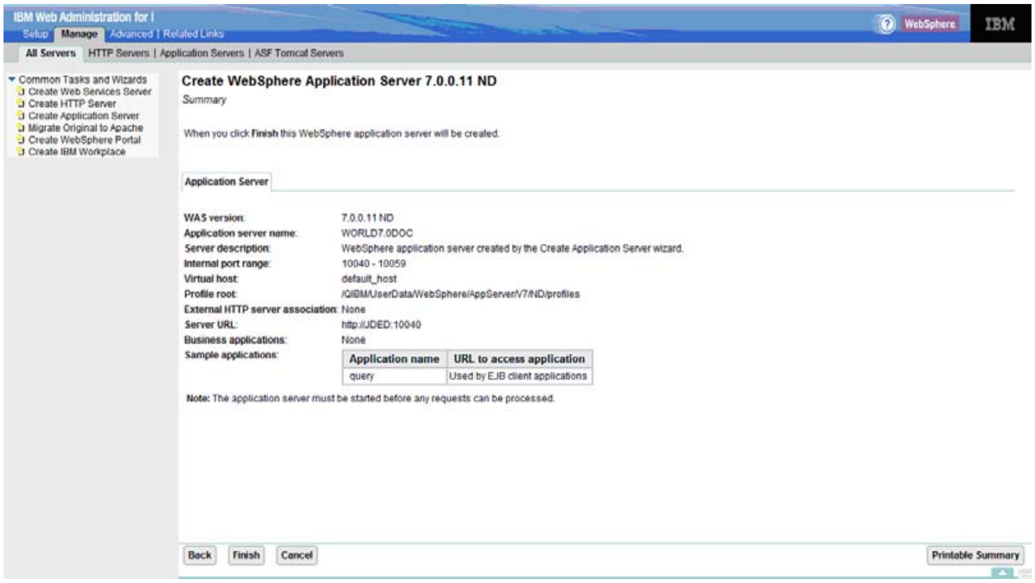
Note: EIM is hosted on an LDAP server that must be configured and running before continuing.

Configure Identity Tokens:

● Do not configure Identity Tokens

○ Configure Identity Tokens

9. Click Next.



Create WebSphere Application Server 7.0.0.11 ND

Summary

When you click **Finish** this WebSphere application server will be created.

WAS version: 7.0.0.11 ND
Application server name: WORLD7.0DOC
Server description: WebSphere application server created by the Create Application Server wizard.
Internal port range: 10040 - 10059
Virtual host: default_host
Profile root: /QIBM/UserData/WebSphere/AppServer/V7/ND/profiles
External HTTP server association: None
Server URL: http://JDED:10040
Business applications: None
Sample applications:

Application name	URL to access application
query	Used by EJB client applications

Note: The application server must be started before any requests can be processed.

10. Click Finish.

Appendix C – Code and Deploy your own Web Services

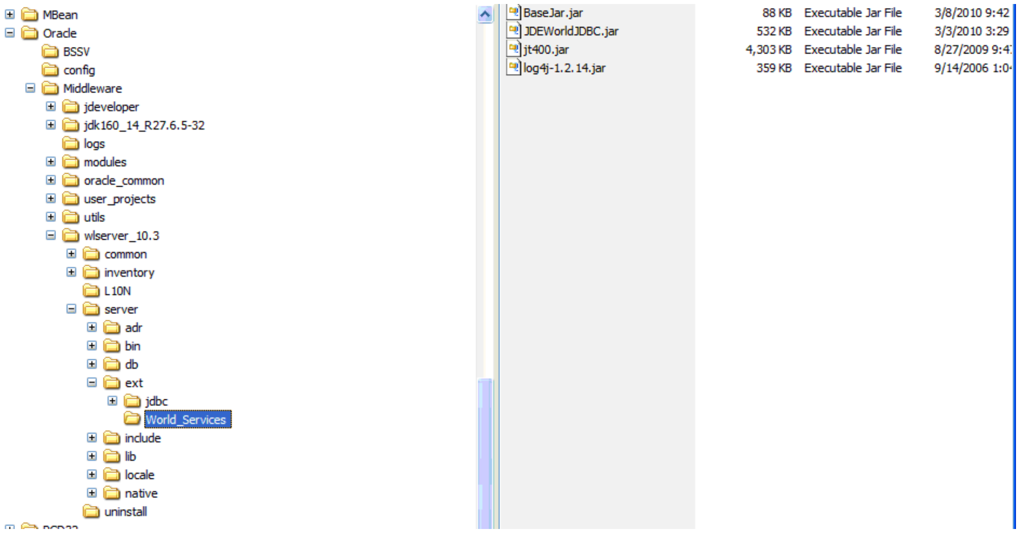
To code and deploy your own Web Services

- 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

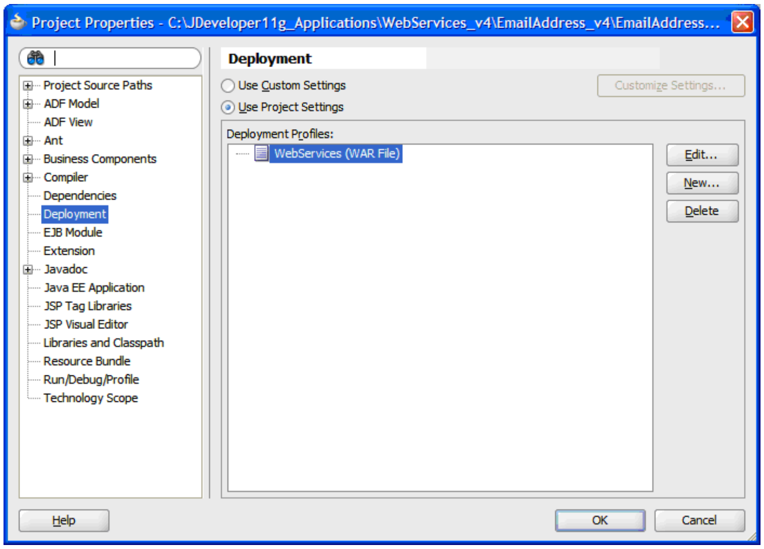
Deployment Profiles

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.



BaseJar.jar	88 KB	Executable Jar File	3/8/2010 9:42
JDEWorldJDBC.jar	532 KB	Executable Jar File	3/3/2010 3:29
jt400.jar	4,303 KB	Executable Jar File	8/27/2009 9:4
log4j-1.2.14.jar	359 KB	Executable Jar File	9/14/2006 1:0

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



Project Properties - C:\JDeveloper11g_Applications\WebServices_v4\EmailAddress_v4\EmailAddress...

Deployment

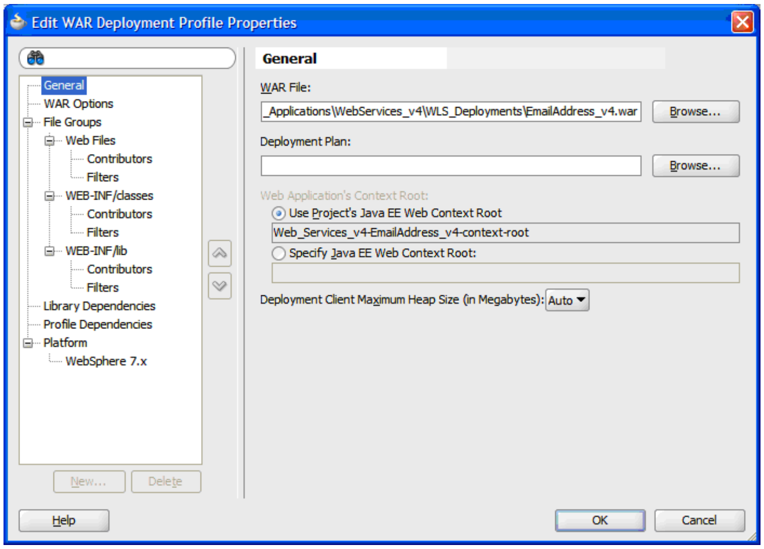
○ Use Custom Settings

● Use Project Settings

Deployment Profiles:

WebServices (WAR File)

1. Highlight WebServices(WAR File) and then click Edit.



Edit WAR Deployment Profile Properties

General

WAR File:

_Applications\WebServices_v4\WLS_Deployments\EmailAddress_v4.war

Deployment Plan:

Web Application's Context Root:

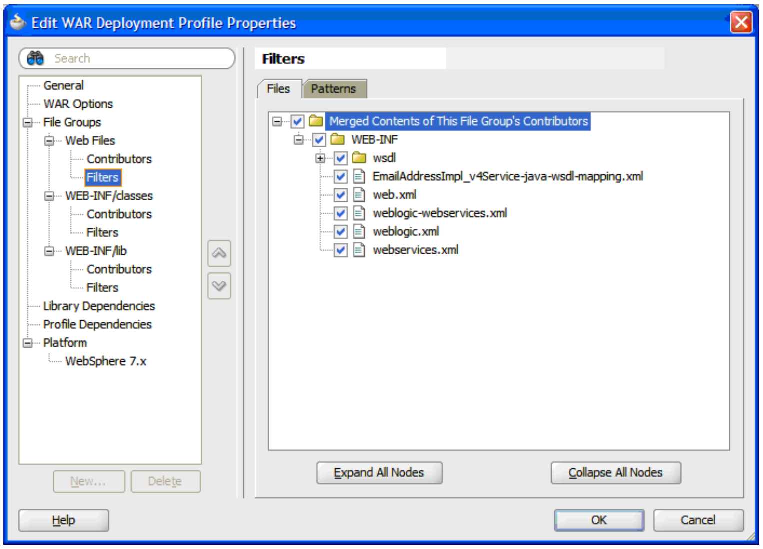
● Use Project's Java EE Web Context Root

Web_Services_v4-EmailAddress_v4-context-root

○ Specify Java EE Web Context Root:

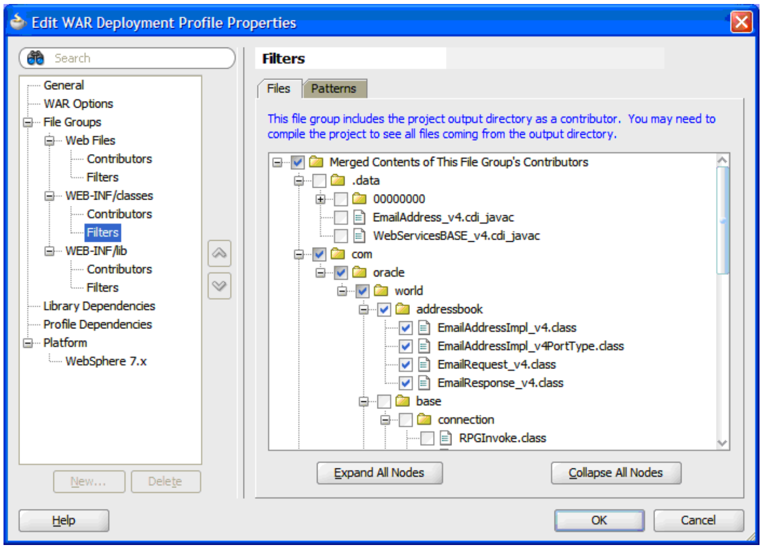
Deployment Client Maximum Heap Size (in Megabytes): Auto

2. Enter a path where you want your WAR file created.



☑ Merged Contents of This File Group's Contributors
☑ WEB-INF
☑ wsdl
☑ EmailAddressImpl_v4Service-java-wsdl-mapping.xml
☑ web.xml
☑ weblogic-webservices.xml
☑ weblogic.xml
☑ webservices.xml

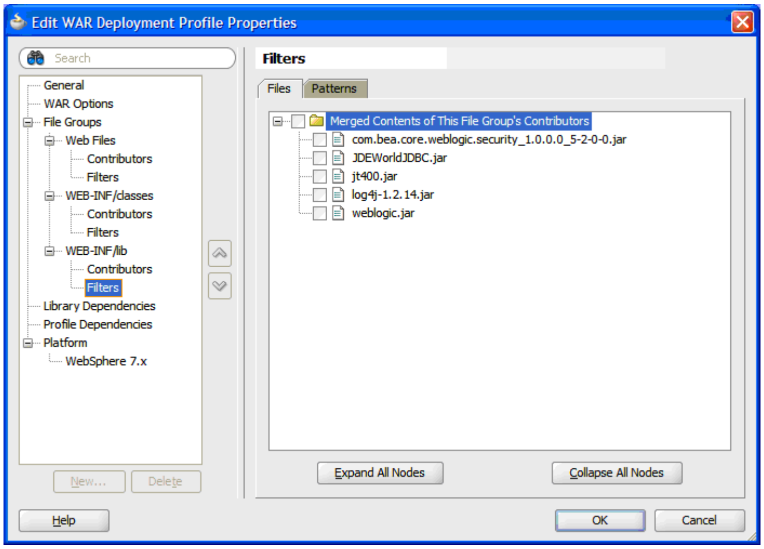
3. Under Web Files > Filters, select all files.



This file group includes the project output directory as a contributor. You may need to compile the project to see all files coming from the output directory.

☑ Merged Contents of This File Group's Contributors
☐ .data
☐ 00000000
☐ EmailAddress_v4.cdi_javac
☐ WebServicesBASE_v4.cdi_javac
☑ com
☑ oracle
☑ world
☑ addressbook
☑ EmailAddressImpl_v4.class
☑ EmailAddressImpl_v4PortType.class
☑ EmailRequest_v4.class
☑ EmailResponse_v4.class
☐ base
☐ connection
☐ RPGInvoke.class

4. 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.



□ Merged Contents of This File Group's Contributors
- □ com.bea.core.weblogic.security_1.0.0.0_5-2-0-0.jar
- □ JDEWorldJDBC.jar
- □ jt400.jar
- □ log4j-1.2.14.jar
- □ weblogic.jar

5. 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.

Appendix D – Add Web Services to Oracle Enterprise Repository

Follow the procedures in this Appendix if you have purchased Oracle Enterprise Repository (OER) and you want to register your JD Edwards World Web Services in your OER instance. A batch import facility, Converged Application Repository (CAR), is provided in the JD Edwards World Service Enablement Software Update for importing the services into OER. See the *JD Edwards World Service Enablement User Guide* for more information.

After you run the Software Update self-extracting archive file, you can access the WorldCARV1.zip file from the extract to location. The .zip file contains the CARv1 objects.

Unzip WorldCARV1.zip into the root directory, which creates the folder WorldCARV1. This folder contains the following objects:

- 58 xml documents contained in WorldCARv1xml
- Source for the Java programs
- Commands and Java classes

To prepare the supplied xmls for the OER Harvester, refer to *Web Services Deployment* and *Java Documents Location Update* in this guide.

To register your own Web Services into OER:

- CAR XML documents builder
- Web Services deployment and java Documents location update

JD Edwards World Converged Application Repository (CAR) – Service Enablement XML documents.

Web Services Deployment and Java Documents Location Update

JD Edwards World CAR XML documents must be updated with the Web Services deployment and Java Documents location before being harvested by OER (Oracle Enterprise Repository).

CAR XML documents are updated through the execution (from MS Windows Command Prompt) of WorldCARLoc.bat command.

The system updates the following CAR XML document elements:

- Service location:

  <LocationURL>#wsdeployment#/WorldServices-ServiceName_v4-context-root/ServiceNameImplPort?WSDL</LocationURL>

- Java Document location:

  <Value>#javadocdeployment#\com\oracle\world\application\ServiceNameImpl.html</Value>

Each token (Service: #wsdeploymet# and Java Document: #javadocdeployment#) are replaced by the corresponding root location value.

Service root location

Replaced by the http address and port where the Services were deployed. For example:

http://localhost:7101

- XML <LocationURL> element after update:

  <LocationURL>http://localhost:7101/WorldServices-ServiceName_v4-context-root/ServiceNameImplPort?WSDL</LocationURL>

Java Documents root location

Replaced by the directory path where the Java Documents were created. For example:

C:\JDeveloper11g_Applications\JavaDocTest\Javadoc

- XML <Value> element after update:

  <Value>C:\JDeveloper11g_Applications\JavaDocTest\Javadoc\com\oracle\world\utilities\BatchCtrlImpl.html</Value>

WorldCARLoc.bat command execution

Note: Java Runtime Environment (JRE) 1.6 or higher is required. You can download the latest JRE version from: http://www.oracle.com/technetwork/java/javase/downloads/index.html

1. Create a backup copy of the CAR XML documents in a new directory/folder outside of the current CAR XML directory.

   Use the backup in case the XML documents are updated with the wrong values.

2. Open MS Windows Command Prompt.

3. Access the WorldCARV1 directory:

   CD\WorldCARV1 <Enter>

4. Execute WorldCARLoc.bat command:

   WorldCARLoc “Drive:\CAR_XML_Documents_Directory” “Services_Deployment_Address:Port” “Drive:\Java_Documents_Root_Path”

   Where:

   Drive:\CAR_XML_Documents_Directory: drive and directory where the CAR XML documents have been deployed.

   Services_Deployment_Address:Port: http address where the Services have been deployed.

   Drive:\Java_Documents_Root_Path: drive and directory path where the Java Documents have been created.

   Note: Enter each one of the three parameters required separated by a blank character. For example:
   WorldCARLoc “C:\CARv1xml” “http://localhost:7001”
   “C:\JDeveloper11g_Applications\JavaDocTest\Javadoc”

5. Verify that all World CAR XML documents were properly updated. Execute the OER Harvester following OER Service Registry instructions.

CAR XML Documents Builder

You use the CAR XML documents builder to generate CAR XML documents to register customers Web Services (as part of JD Edwards World Service Enablement) in OER.

The Web Services information, contained in the CAR XML documents required by OER, is collected from custom Java Doc tags that need to be added to each Web Service that will be registered in OER.

Java Doc custom tags description

Note: The CAR XML documents builder collects information from Implementations and Managers classes. (“Impl” and “Manager” texts must be part of the source class name. For example, AddressBookImpl_v4.java.

Update the Impl/Manager class with the following tags:

Web Service tags – must be entered before the class declaration statement.

@wsname: Web Service name.

@wsdesc: Web Service description.

@version: Web Service version.

@applname: Application name.

@prodcode: JD Edwards product code.

@applrelease: JD Edwards application release

@prodcodedesc: JD Edwards product code description

@wsdlurl: #wsdeployment# + deployment location

Note: #wsdeplyment# token is not required if the deployment http address is entered as part of the URL.

Example:

```
/**
 * Description of AddressBook Impl Class
 *
 * @wsname  Address Book
 * @wsdesc  Web service for maintaining Address Book information.<BR>
 * @version  v4
 * @applname  JD Edwards World
 * @applrelease  A9.2
 * @prodcode  01
 * @prodcodedesc  Address Book
 * @wsdlurl  #wsdeployment#/Web_Services_v4-AddressBook_v4-context-
root/AddressBookImpl_v4Port?WSDL
 */
```

Exposed/public methods tags must be entered before each exposed/public method declaration:

@pubmethodname: public method name

@pubmethoddesc: public method description

Example:

```
 /**
  *  This method retrieves Address Book records by querying the Address Book
  *  Master (F0101) and related files.
  * @param getRequest       - Structure containing input values.
  * @return AddressBookResponse_v4        - Structure containing output values.
```

```
* @pubmethodname  getAddressBook
* @pubmethoddesc  This method retrieves Address Book records by
*    querying the Address Book Master(F0101) and related files.<BR>
*/
```

General Rules

- Enter the text associated to each tag leaving two blank characters, between the tag and the text.
- Java Doc custom tags can be used together with Java standard Java Doc tags as for example @param.
- Description tags (@wsdesc and @pubmethoddesc) require "<BR>" (break a line) tag at the end of the entire description. If more the one line of text is needed, the text can be wrapped in the next line(s).
- Execute CAR XML Builder:

After all custom tags have been added to the Web Services execute WorldCARXMLB.bat command to build CAR XML documents. This process generates one XML document for each Web Service (Impl/Manager class) to be registered in OER.

- Open MS Windows Command Prompt.
- Access the WorldCARV1 directory:

  CD\WorldCARV1 <Enter>

- Execute WorldCARXMLB.bat command:

  WorldCARXMLB "Drive:\Web_Services_Source_Directory" "Drive:\CAR_XML_Documents_Directory"

  Where:

  Drive:\Web_Service_Source_Directory: drive and directory location of Web Services sources. Only the parent directory needs to be specified. For example specifying "C:\Services" will traverse all subdirectories to retrieve source files.

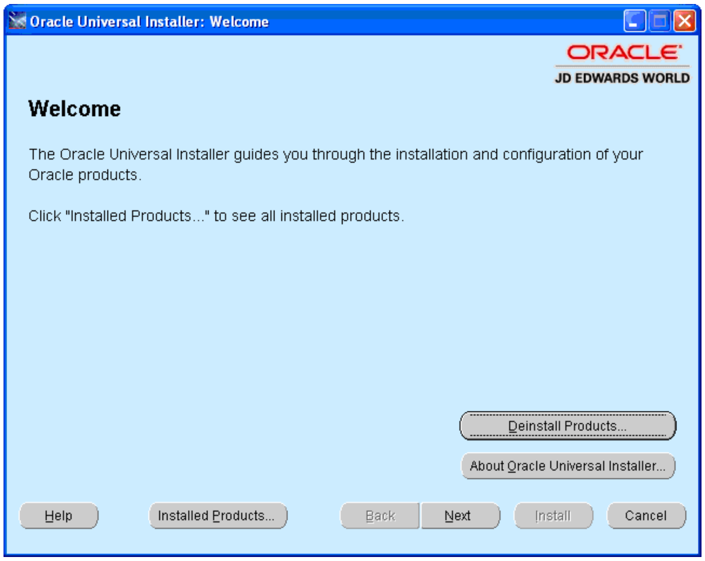
  Drive:\CAR_XML_Documents_Directory: drive and directory where the XML documents will be created. If the directory doesn't exist it will be created.

Note: Enter both parameters required separated by a blank character.

After, you verify that all XML documents were properly created, execute the command described in the Web Services deployment and Java Documents location update section of this document.

Appendix E - Uninstall Service Enablement

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



Oracle Universal Installer: Welcome

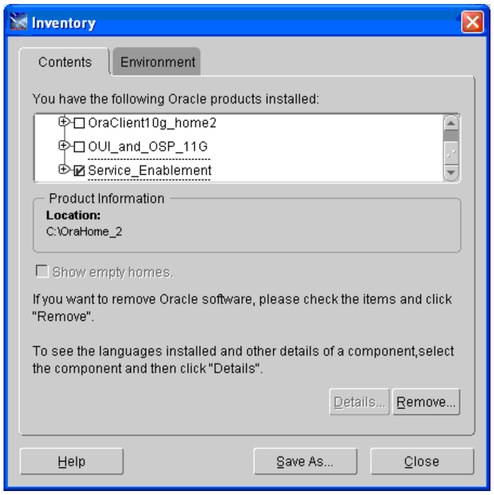
Welcome

The Oracle Universal Installer guides you through the installation and configuration of your Oracle products.

Click "Installed Products..." to see all installed products.

1. Start the OUI installer.

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



Inventory

You have the following Oracle products installed:

- ☐ OraClient10g_home2
- ☐ OUI_and_OSP_11G
- ☑ Service_Enablement

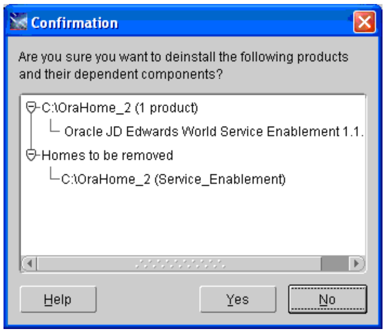
Product Information
Location:
C:\OraHome_2

☐ Show empty homes.

If you want to remove Oracle software, please check the items and click "Remove".

To see the languages installed and other details of a component,select the component and then click "Details".

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

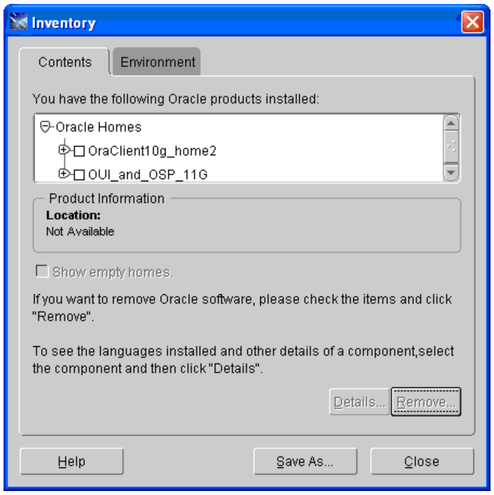


Confirmation

Are you sure you want to deinstall the following products and their dependent components?

```
C:\OraHome_2 (1 product)
  Oracle JD Edwards World Service Enablement 1.1.
Homes to be removed
  C:\OraHome_2 (Service_Enablement)
```

3. On the Confirmation screen, click Yes.



Inventory

You have the following Oracle products installed:

```
Oracle Homes
  □ OraClient10g_home2
  □ OUI_and_OSP_11G
```

Product Information

Location:

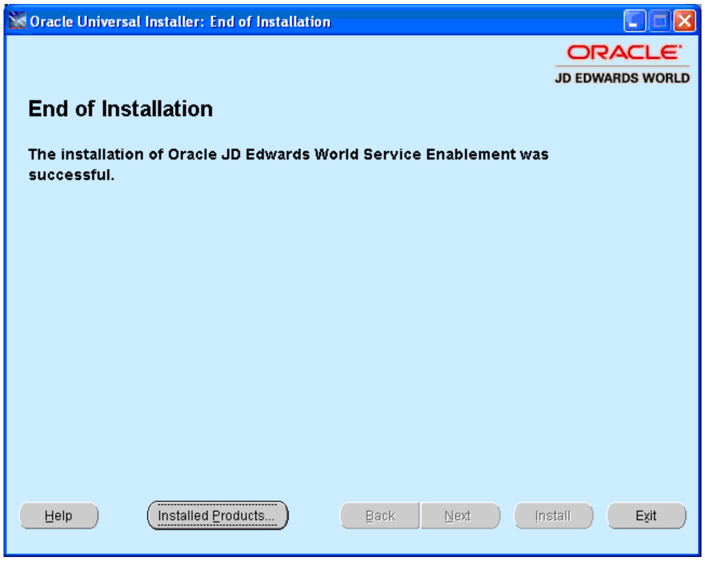
Not Available

□ Show empty homes.

If you want to remove Oracle software, please check the items and click "Remove".

To see the languages installed and other details of a component,select the component and then click "Details".

4. On the Inventory screen, click Close.

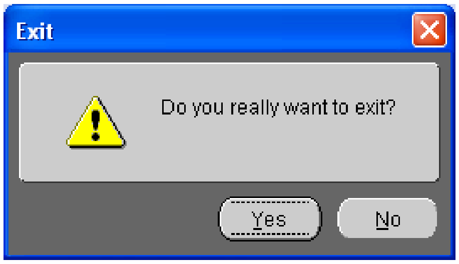


Oracle Universal Installer: End of Installation

End of Installation

The installation of Oracle JD Edwards World Service Enablement was successful.

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



Exit

Do you really want to exit?

6. On the Exit screen, click Yes.