### **Oracle® Fusion Middleware**

WebCenter Sites: Installing and Configuring Supporting Software 11*g* Release 1 (11.1.1.8.0) **E29751-03** 

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Oracle Fusion Middleware WebCenter Sites: Installing and Configuring Supporting Software, 11g Release 1 (11.1.1.8.0)

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## Preface

This guide contains information about installing and configuring supported databases, application servers, web servers, and other software used by the Oracle WebCenter Sites product family. This guide also contains procedures for integrating WebCenter Sites and its applications with LDAP and authentication applications.

### Audience

This guide is intended for installation engineers with experience installing and configuring enterprise-level software, including databases, database drivers, application servers, web servers, and LDAP servers.

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### **Related Documents**

For more information, see the following documents:

- Oracle WebCenter Sites Certification Matrix
- Oracle WebCenter Sites Release Notes
- Oracle Fusion Middleware WebCenter Sites Installation Guide

### **Graphics in This Guide**

Graphics in this guide are screen captures of dialog boxes and similar windows that you will interact with during the installation or configuration process. The graphics are presented to help you follow the installation and configuration processes. They are not intended to be sources of information such as parameter values, options to select, and product version numbers.

### Conventions

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
Monospace bold	Monospace bold type indicates a command.

The following text conventions are used in this document:

# Part I

# **Creating and Configuring a Database**

Oracle WebCenter Sites requires access to a supported database configured specifically for WebCenter Sites. Instructions for creating and configuring supported databases are available in this part.

Part I contains the following chapters:

- Chapter 1, "Creating and Configuring an Oracle 11g Database"
- Chapter 2, "Creating and Configuring an IBM DB2 Database"
- Chapter 3, "Creating and Configuring a Microsoft SQL Server Database"

In practice, permissions can be restricted for the user that WebCenter Sites will use to access a database. However, the following rights must exist: ability to create, modify, and delete tables and indexes.

If you need instructions on installing a supported database, refer to the product documentation. For instructions on creating and configuring a supported database refer to the chapters listed above. (Note that database configuration is identical across different application servers.)

1

## Creating and Configuring an Oracle 11g Database

Use this chapter to set up an Oracle 11*g* database for your WebCenter Sites installation. This chapter contains the following sections:

- Section 1.1, "Creating an Oracle 11g Database"
- Section 1.2, "Creating a New User for WebCenter Sites"
- Section 1.3, "Next Step"

### 1.1 Creating an Oracle 11g Database

**1.** Launch the Oracle Database Configuration Assistant by executing the following command:

<ora\_home>/bin/dbca

2. In the "Welcome" screen (Figure 1–1), click Next.

### Figure 1–1 Database Configuration Assistant: Welcome

	Database Configuration Assistant : Welcome
	Welcome to Database Configuration Assistant for Oracle database. The Database Configuration Assistant enables you to create a database, configure database options in an existing database, delete a database, and manage database templates.
Cancel Help	Sack Next >>

**3.** In the "Operations" screen (Figure 1–2), select **Create a Database** and click **Next**.

	Database Configuration Assistant, Step 1 of 15 : Operations
	Select the operation that you want to perform: © Create a Database © Configure Database Options © Delete a Database © Manage Templates © Configure Automatic Storage Management
Cancel Help	) ( <u>Back Next </u> )

### Figure 1–2 Operations

**4.** In the "Database Templates" screen (Figure 1–3), select **General Purpose or Transaction Processing** and click **Next**.

### Figure 1–3 Database Templates

Datal	base Config	Iration Assistant, Step 2 of 15 : Database Templates	×
	Templates new datab only when cannot be	s that include datafiles contain pre-created databases. They a pase in minutes, as opposed to an hour or more. Use template necessary, such as when you need to change attributes like b altered after database creation.	allow you to create a es without datafiles llock size, which
	Select	Template	Includes Datafiles
	9	General Purpose or Transaction Processing	Yes
	0	Custom Database	No
Wagettingholdser land	0	Data Warehouse	Yes
Address of the second s			
			(Show Details)
Cancel Help	)		>)

**5.** In the "Database Identification" screen (Figure 1–4), enter the global database name and the SID. (Oracle recommends using the same value for both; in our example, we are using contentDB.) When you are finished, click **Next**.

Figure 1–4	Database Identification	1
------------	-------------------------	---

✓ Databas	e Configuration Assistan	it, Step 3 of 15 : Database Identification
	An Oracle database is uni "name.domain". Global Database Name: A database is referenced any other instance on this SID:	iquely identified by a Global Database Name, typically of the form contentDB by at least one Oracle instance which is uniquely identified from computer by an Oracle System Identifier (SID). contentDB
Cancel Help		🔇 Back 🛛 Next 📎

6. In the "Management Options" screen (Figure 1–5), select the **Configure Enterprise Manager** check box. Select other options as desired. When you are finished, click **Next.** 

### Figure 1–5 Management Options

Da	atabase Configuration Assistant, Step 4 c	of 15 : Management Options	- • ×
	Configure Enterprise Manager		
	C Register with Grid Control for co	entralized management	
	Management Service	No Agents Found	
	Configure Database Control for	local management	
	Enable Alert Notifications		
Wayshight American Wayshight American Wayshight American Wayshight American	Outgoing Mail (SMTP) Server:		
Maria Marian Maria Manakarian Maria Manakarian	Recipient Email Address:		
Magazing Malansian Magazing Malansian Magazing Malansian	🗆 Enable Daily Disk Backup to F	Recovery Area	
Automatical Automatica Automatical Automatical Automatica Automati	Backup Start Time:	02 🖉 00 🖉 🖉 AM 🔿 PM	
Magazing Malaminan Magazing Malaminan Magazing Malaminan	OS Username:		
Nadoustephilanoum Nadoustephilanoum	OS Password:		
Cancel Help		🕜 Back <u>N</u> ext 📎	

- 7. In the "Database Credentials" screen (Figure 1–6), do one of the following:
  - If you are installing a production system, select **Use Different Administrative Passwords**, enter a unique password for each database user shown in the table, and click **Next**.
  - If you are installing a non-production system, select Use the Same Administrative Password for All Accounts, enter and re-enter a password, and click Next.

Figure 1–6 Database Credentials

O Use Different Admi	nistrative Passwords	Confirm Password
ราร		
 SYSTEM		
DBSNMP		
SYSMAN		
rassworu.		
Confirm Password:		

8. In the "Storage Options" screen (Figure 1–7), select File System and click Next.

### Figure 1–7 Storage Options

D	atabase Configuration Assistant, Step 6 of 15 : Storage Options
	<ul> <li>Select the storage mechanism you would like to use for the database.</li> <li>File System Use the File System for Database storage.</li> <li>Automatic Storage Management (ASM) Automatic Storage Management simplifies database storage administration and optimizes database layout for I/O performance. To use this option you must either specify a set of disks to create an ASM disk group or specify an existing ASM disk group.</li> <li>Raw Devices Raw partitions or volumes can provide the required shared storage for Real Application Clusters (RAC) databases if you do not use Automatic Storage Management and a Cluster File System is not available. You need to have created one raw device for each datafile, control file, and log file you are planning to create in the database.</li> <li>Specify Raw Devices Mapping File Browse</li> </ul>
Cancel Help	

**9.** In the "Database File Locations" screen (Figure 1–8), select **Use Database File Locations from Template** (unless you want to use custom file names and locations) and click **Next**.

Database	e Configuration Assistant, Step 7 of 15 : Database File Locations
	Specify locations for the Database files to be created:   Use Database File Locations from Template Use Common Location for All Database Files Database Files Location:  Use Oracle-Managed Files Database Area:  Multiplex Redo Logs and Control Files  If you want to specify different locations for any database files, pick any of the above options except Oracle-Managed Files and use the Storage page later to customize each file location. If you use Oracle-Managed Files, Oracle automatically generates the names for database files, which can not be changed on the Storage page.  File Location Variables
Cancel Help	<u> Back</u> <u>Next</u> <u>Einish</u>

Figure 1–8 Database Configuration Assistant: Database File Locations

**10.** In the "Recovery Configuration" screen (Figure 1–9), leave the default values and click **Next**.

Figure 1–9	Recovery	Configuration
------------	----------	---------------

💌 Databa	ase Configuration Assistant, Step	8 of 15 : Recovery Configuration
	Choose the recovery options for t	he database:
	This is used as the default for also required for automatic di recommends that the databas disks for data protection and	all disk based backup and recovery operations, and is sk based backup using Enterprise Manager. Oracle se files and recovery files be located on physically different performance.
	Flash Recovery Area:	{ORACLE_BASE}/flash_recovery_ Browse
Hugerschlafer fan Niegerschlafer ian Uderschlafer ian Uderschlafer ian	Flash Recovery Area Size:	2048 M Bytes 👻
Hypergeneration         Biological           Hypergeneration	Enable Archiving	Edit Archive Mode Parameters)
Cancel Help	)	🔇 Back Next 📎 Einish

**11.** In the "Database Content" screen (Figure 1–10), click Next.

✓ Databa	ase Configuration Assistant, Step 9 of 15 : Database Content
	Sample Schemas       Custom Scripts         Sample Schemas illustrate the use of a layered approach to complexity, and are used by some demonstration programs. Installing this will give you the following schemas in your database: Human Resources, Order Entry, Online Catalog, Product Media, Information Exchange, Sales History. It will also create a tablespace called EXAMPLE. The tablespace will be about 130 MB.         Specify whether or not to add the Sample Schemas to your database.         Sample Schemas
Cancel Help	<u> </u>

Figure 1–10 Database Content

- **12.** In the "Initialization Parameters" screen, do the following:
  - **a.** In the **Memory** tab (Figure 1–11), set the preferred memory size for your database:
    - \* For the development system, set the preferred memory size to 512MB.
    - \* For the production system, the value you enter depends on the size and contents of your database.

Memory Siz	ing Chara	cter Sets Connection Mode	
Typical			
Memory Size (SGA and P	GA): 396 MB	. <u>▼</u>	
Percentage:	40 %	250 MB	992 MB
Use Automatic Memor	y Management	Show Memory Distribution	
C Custom			
Memory Management	Automatic Share	d Memory Management 🚽	
SGA Size:	297	M Bytes 👻	
PGA Size:	99	M Bytes 👻	
Total Memory for Oracle	: 396 M Bytes		
	<u></u>		

Figure 1–11 Initialization Parameters - Memory

**b.** In the **Character Sets** tab (Figure 1–12), do the following:

Select the Use Unicode (AL32UTF8) radio button.

In the "National Character Set" drop-down list, select UTF-8 - Unicode 3.0 UTF-8 Universal Character Set.

Database	Configuration Assista	unt, Step 10 of 1	4 : Initialization P	arameters	- • ×
	Memory Database Character	Sizing r Set	Character Sets	Connection Mode	]
	<ul> <li>Use the default</li> <li>The default chara operating system</li> <li>Use Unicode (AL3 Setting character groups.</li> <li>Choose from the I Database Character</li> </ul>	acter set for this ( : WE8MSWIN125) 2UTF8) set to Unicode (4 ist of character s ter Set: AL32	database is based 2. L32UTF8) enables ets UTF8 – Unicode UT	on the language setting of thi you to store multiple languag F-8 Universal character set	s je
	National Character S Default Language: Default Territory: All Initialization Parar	et: UTF8 - Ur American United Sta neters)	tes	Iniversal character set, CESU-	
Cancel Help			( B	ack Next »	sh

Figure 1–12 Initialization Parameters - Character Sets

### c. Click Next.

**13.** In the "Security Settings" screen (Figure 1–13), click Next.

### Figure 1–13 Security Settings

✓ Datab	ase Configuration Assistant, Step 11 of 14 : Security Settings
	Oracle recommends using the enhanced default security settings
	On an an an and a state of the and a state of the state o
	<ul> <li>Keep the enhanced 11g default security settings (recommended) These settings include enabling auditing and a new default password profile.</li> </ul>
	C Revert to pre-11g default security settings To disable a particular category of enhanced settings for compatiblity purposes choose from the following.
The second se	Revert audit settings to pre-11g defaults
Argunggadanian Argunggadan Argunggadanian Argunggadan Arg	Revert password profile settings to pre-11g defaults
Cancel Help	S Back Einish

**14.** In the "Automatic Maintenance Tasks" screen (Figure 1–14), click Next.

Database Co	onfiguration Assistant, Step 12 of 14 : Automatic Maintenance Tasks
	Oracle Database 11g provides the ability to automatically manage maintenance tasks such as optimizer statistics collection and proactive advisor reports. These tasks are run in a predefined maintenance window and their CPU consumption is throttled to prevent them from interfering with normal user work. The default maintenance windows are 10:00 PM - 2: 00 AM on weekdays, and all weekend long. These defaults can be changed using Enterprise Manager at any time. I ■ Enable automatic maintenance tasks
Cancel Help	<u> </u>

### Figure 1–14 Automatic Maintenance

**15.** In the "Database Storage" screen (Figure 1–15), review the selected file locations. (If you need to make changes, click **File Location Variables**.) Click **Next**.

### Figure 1–15 Database Storage

💌 🗾 Datab	ase Configuration Assistant, Step 13 of 14 : Database Storage
⊖- <mark>⊃Storage</mark> 	Database Storage
H-□Datafiles ⊕-□Redo Log Groups	From the <b>Database Storage</b> page, you can specify storage parameters for database creation. This page displays a tree listing and summary view (multi-column lists) to enable you to change and view the following objects:   Control files  Tablespaces Datafiles
	Kniback Segments     Redo Log Groups From any object type folder, click <b>Create</b> to create a new object. To delete an object, select the specific object from within the object type folder and click <b>Delete</b> . Important: If you select a database template including data files, then you will not be able to add or remove data files, tablespaces, or rollback segments. Selecting this
	type of template enables you to change the following: <ul> <li>Destination of the datafiles</li> <li>Control files or log groups.</li> </ul> For more information, refer to the
	Oracle Database Storage Administrator's Guide.
Create Delete	File Location Variables)
Cancel Help	

**16.** In the "Creation Options" screen (Figure 1–16), click Finish.

💌 🗾 Databa	se Configuratio	n Assistant, Step 14 of 14 : Creation Options
	Select the databa Create Da Save as a Name: Description:	Ise creation options: tabase Database Template contentDB
	Destination Directory.	Database Creation Scripts /u01/software/DB/Oracle/oracledb/admin/contentDB/scripts Browse
Cancel Help		<u>Back</u> <u>Next</u> )

**17.** In the "Confirmation" screen (Figure 1–17), review the selected options, then click **OK**.

### Figure 1–17 Confirmation Screen

	c	Confirmation
The following operations will be pe A database called "contentDB" w	erformed: ill be creat	ed.
Database Details:		
General Pu	rpos Proc	se or Transaction
Use this database template to purpos	create a p e or transa	configured database optimized for general action processing usage.
Option	Selected	
Oracle JVM	true	
Oracle Text	true	
Oracle XML DB	true	
Oracle Multimedia	true	
Oracle OLAP	true	
Oracle Spatial	true	
Oracle Ultra Search	true	
Oracle Label Security	false	
Sample Schemas	false	
	OK Car	Save as an HTML file

**18.** Allow the database creation tasks to complete (Figure 1–18). If any one of the tasks fails, remedy the problem before continuing.

Figure 1–18 Database Configuration Assistant

	Database Configuration Assistant	×
Ideal Platform for Grid Computing	Copying database files Creating and starting Oracle instance Completing Database Creation	
1498	Clone database creation in progress	
	/u01/software/DB/Oracle/oracledb/cfgtoollogs/dbca/contentDB	
	Stop	

**19.** At the summary screen (Figure 1–19), make a record of the database SID and the database control URL, then click **Exit**.

### Figure 1–19 Database Creation Complete

Database Configuration Assistant
Database creation complete. For details check the logfiles at: /u01/software/DB/Oracle/oracledb/cfgtoollogs/dbca/contentDB.
Database Information:         ContentDB           Global Database Name:         contentDB           System Identifier(SID):         contentDB           Server Parameter Filename:         /u01/software/DB/Oracle/oracledb/product/11.1.0/db_1/dbs/spfilecontentDB.ora
The Database Control URL is https://localhost.localdomain:5500/em
Management Repository has been placed in secure mode wherein Enterprise Manager data will be encrypted. The encryption key has been placed in the file: /u01/software/DB/Oracle/oracledb/product/11.1.0 /db_1/localhost.localdomain_contentDB/sysman/config/emkey.ora. Please ensure this file is backed up as the encrypted data will become unusable if this file is lost.
Note: All database accounts except SYS, SYSTEM, DBSNMP, and SYSMAN are locked. Select the Password Management button to view a complete list of locked accounts or to manage the database accounts(except DBSNMP and SYSMAN). From the Password Management window, unlock only the accounts you will use. Oracle Corporation strongly recommends changing the default passwords immediately after unlocking the account.
Password Management)
Exit

### 1.2 Creating a New User for WebCenter Sites

**Note:** Before you begin, determine the Console Server port:

- Open the emoms.properties file in a text editor. The file is located in: <ora\_home>/<servername>\_<SID>/sysman/config/
- **2.** Find the line,

oracle.sysman.emSDK.svlt.ConsoleServerPort

and make a record of the port number value at the end of the line.

- 1. Log in to the Oracle Enterprise Manager console:
  - a. Execute the following command: emctl status dbconsole

The command should return an output similar to the following:

- **b.** Open a browser and go to the URL highlighted in bold in step a above. If you see a "Security Mismatch" error, ignore it (the error appears if you are using a self-signed certificate).
- **c.** Log in as the sys user (you specified a password for this user in step 7 on page 1-6 connecting as **SYSDBA** (Figure 1–20).

Figure 1–20 Enterprise Manager - Login

ORACLE Enterprise I Database Control	Manager 11 g	<u>Help</u>
Login		
* User Name	sys	
* Password	••••••	
Connect As	SYSDBA -	
	Login	

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**2.** In the tab bar (Figure 1–21), click **Server**.



ORACLE <sup>®</sup> Enterprise Manager 11 <i>g</i>			<u>Setup</u> <u>Preferenc</u>	<u>es Help Logout</u> Database
Database Instance: vmorcidb				Logged in As §
Home Performance Availability Server	Schema Data Movement	Software and Support		
	Latest Data Collecte	d From Target Oct 1, 2007 4:38:29 PM ED	Refresh View Data Automa	atically (60 sec)
General	K Host CPU	Active Sessions	SQL Response Time	
Shutdown Black Out Status Up Up Since Oct 1, 2007 12:50:34 PM EDT Instance Name vmorcldb Version 11.1.0.6.0 Host boalhost.localdomain Listener LISTENER localhost.localdomain View All Properties	100% 75 50 25 0 Load <u>4.43</u> Paging <u>0.00</u>	1.0 0.5 0.0 Maximum CPU 1	1.0 0.5 0.0 Reference collect SQL Response Time (Reset Refere	ion is empty. (%) Unavailable ence Collectior
Diagnostic Summary	Space Summary		High Availability	
ADDM Findings 7	Databas	se Size (GB) <u>1.485</u>	Instance Recovery Time (sec)	22
Period Start Time Oct 1, 2007 3:00:02 PM EDT	Problem	Tablespaces O	Last Backup	n/a
Active Incidents 0 0	Segment Advisor Recom Polik Dump Are	nmendations 0 cy Violations ✓ 0 ∞a Used (%) 65	Usable Hash Hecovery Area (%) Flashback Database Logging	<u>100</u> Disabled

- **3.** Create the new user (Figure 1–22). Do the following:
  - **a.** In the "Security" section of the page, click Users.

### Figure 1–22 Server Tab

ORACLE Enterprise Manager 11 g	<u>Setup</u>

### Database Instance: vmorcldb

Home Performance Availability Se	erver Schema Data Movement Software and Support	
Storage	Database Configuration	Oracle Scheduler
Control Files	Memory Advisors	adol
Tablespaces	Automatic Undo Management	Chains
Temporary Tablespace Groups	Initialization Parameters	Schedules
Datafiles	View Database Feature Usage	Programs
Rollback Segments		Job Classes
Redo Log Groups		Windows
Archive Logs		Window Groups
Migrate to ASM		Global Attributes
Make Tablespace Locally Managed		Automated Maintenance Tasks
Statistics Management	Resource Manager	Security
Automatic Workload Repository	Getting Started	Users
AWR Baselines	Consumer Groups	Roles
	Consumer Group Mappings	Profiles
	Plans	Audit Settings
	Settings	Transparent Data Encryption
	Statistics	Virtual Private Database Policies
		Application Contexts

**b.** Click **Create** near the top right corner of the user list (Figure 1–23).

### Figure 1–23 Users

ORAC Databas	:L€ Enterprise Manag e Control	er 11g				Setu	Database
Database	Instance: vmoreldb >						Logged in As SYS
Users							
						Ођ	eet Type User 📃
Searc	h						
Enter a	in object name to fiter the data	a that is clisplayed in yo	ur results set.				
Objec	t Name						
	Go						
By detai string.	ult, the search returns all uppercase	e matches beginning with	the string you entered. To run an ex	act or case-sensitive mat	ch, double quote the search :	string. You can use the wildcard	d symbol (%) in a double quoted
Selec	ion Mode Single 💌						Create
Ed	t View Delete Actor	s Create Like	- Co			S Previous	1-25 cf 33 💌 <u>Next 8</u> 🦻
Colord		Assessment Otachus	Emination Data	Defeuß Teblemen	Temporary	Dustila	Quarteria
Select	Osername /	Account Status	Expiration Date	Derault Tablespace	Tablespace	Prome	Created
	ANONYMOUS	EXPIRED &	Sep 25, 2007 3:39:21 PM EDT	SYSAUX	TEMP	DEFAULT	Aug 3, 2007 1:34:38 AM EDT
C	APEX_PUBLIC_USER	EXFIRED & LO CKED	Sep 25, 2007 3:39:21 PM EDT	USERS	TEMP	DEFAULT	Aug 3, 2007 2:04:08 AM EDT

**c.** In the "Create User" form (Figure 1–24), fill in all required fields (marked with an asterisk). Fill in all other fields as necessary.

ORACLE E	Setup Preferences Heip Logout Database						
Database Instance	e: conter	it <u>DB</u> > <u>Usors</u> >					Logged in As SYS
							Show SQL Cancel OK
General	Role	s System Privileges	Object Privileges	<u>Quotas</u>	Consumer Group Privileges	Proxy Users	
	Name	csuser					
	Profile	DEFAULT	0				
Authen	tication	Password 2					
* Enter Pa	ssword	•••••					
* Confirm Pa	ssword	•••••					
		For Password choice, the	role is authorized via	password.			
		Expire Password now					
Default Tabl	espace	USERS					
Temporary Tabl	espace	TEMP	×				
	Status	O Locked   Unlocked					
General	Role	s System Privileges	Object Privileges	Quotas	Consumer Group Privileges	Proxy Users	
							Show SQL Cancel OK
			<u>Database</u>   <u>Se</u>	etup   Pref	erences   <u>Help</u>   <u>Logout</u>		

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**4.** Select the default and temporary tablespaces for the new user (Figure 1–25). Do the following:

**Note:** The actual tablespace may differ depending on your installation. For more information about the tablespace for your installation, see your database administrator.

**a.** Select the default tablespace:

In the "Create User" form, click the **flashlight** button next to the **Default Tablespace** field.

In the form that appears, select the **USERS** radio button.

Click Select.

### Figure 1–25 Search and Select: Tablespace

Tablespace	Go			
Tablespace	Go			
Diespace				
DAUX				
STEM				
MP				
DOTBS1				
ERS				
	ITEM IP DOTBS1 ERS	ITEM IP DOTBS1 ERS	ITEM IP DOTBS1 ERS	ITEM IP DOTBS1 ERS (Cancel)

**b.** Select the temporary tablespace:

In the "Create User" form, click the **flashlight** button next to the **Temporary Tablespace** field.

In the form that appears, select the **TEMP** radio button.

Click Select.

- **5.** Assign roles to the new user (Figure 1–26), as required.
  - **a.** In the tab bar, click **Roles**.

### Figure 1–26 Roles Tab

ORACLE Enterpris	e Manager 11g					Setup Preferences Help Logout Database	
Database Instance: contentDB > Users > Logo							
Create User							
						Show SQL Cancel OK	
General Roles	System Privileges	Object Privileges	Quotas	Consumer Group Privileges	Proxy Users		
						Edit List	
Role				Admin Option		Default	
No items found							
General Roles	System Privileges	Object Privileges	Quotas	Consumer Group Privileges	Proxy Users		
						Show SQL Cancel OK	
		Database   S	otup I Pret	arances   Heln   Locout			



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- **b.** Click **Edit List** at the top right corner of the list of roles.
- c. In the "Available Roles" list, select the required roles and click Move.
The roles appear in the "Selected Roles" list.

- d. Click OK.
- 6. Assign system privileges to the new user. Do the following:
  - **a.** In the tab bar (Figure 1–27), click **System Privileges**.

Figure 1–27 System Privileges Tab

Database Instan	ce: content[	)B > Users >					Logged in As SYS
Create Use	ər						
							(Show SQL) (Cancel) (OK)
General	Roles	System Privileges	Object Privileges	Quotas	Consumer Group Privileges	Proxy Users	
							(Edit List
System Privile	ge					Admin Opti	on
No items found							
General	<u>Roles</u>	System Privileges	Object Privileges	<u>Quotas</u>	Consumer Group Privileges	Proxy Users	
							Show SQL Cancel OK

Database | Setup | Preferences | Help | Logout

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- **b.** Click **Edit List** at the top right corner of the list of privileges.
- c. In the "Available System Privileges" list, select CREATE SESSION, CREATE TABLE, CREATE VIEW, and UNLIMITED TABLESPACE, then click Move.

The privileges are moved to the "Selected System Privileges" list.



			Database
Database Instance: contentDB > Users >			Logged in As SYS
Modify System Privileges			
Available System Privileges		Selected System Privileges	Cancel) (OK)
ACCESS_ANY_WORKSPACE ADMINISTER ANY SQL TUNING SET ADMINISTER DATABASE TRIGGER ADMINISTER SQL MANAGEMENT OBJECT ADMINISTER SQL MANAGEMENT OBJECT ADMINISTER SQL TUNING SET ADVISOR ALTER ANY ASSEMBLY ALTER ANY CUBE	Move Move All C Remove Remove All	CREATE SESSION CREATE TABLE CREATE VIEW UNLIMITED TABLESPACE	
			Cancel OK

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d. Click OK (Figure 1–28).

A message confirming the creation of the new user is displayed (Figure 1–29). The user appears in the list of users.

#### Figure 1–29 Users

ORACI Database	DRACLE Enterprise Manager 11 g Setur Jatabase Control							
Database I	tiabase Instance: contentDB > Logged in As SYS							
Users								
							Object Type User	0
Searc	h							
Enter a	an object name	to filter the data	that is displayed in your resu	ults set.				
Objec	t Name CSUS	SER	Go					
By defau (%) in a	ult, the search retu double quoted str	irns all uppercase m ing.	atches beginning with the string you	entered. To run an exac	t or case-sensitive match, dou	ible quote the	search string. You can use the wik	dcard symbol
Selec	tion Mode Sir	ngle 😂						Create
Edit	View) Dele		eate Like 🔷 🗘	GO				
Select	UserName △	Account Status	Expiration Date	Default Tablespace	Temporary Tablespace	Profile	Created	User Type
۲	CSUSER	OPEN	Jul 3, 2012 7:16:53 AM EDT	USERS	TEMP	DEFAULT	Jan 5, 2012 7:16:53 AM EST	LOCAL

**Note:** While creating the directory, do not select "Any Dictionary or DBA role" as it would lead in creating more one schema.

# 1.3 Next Step

\_

You are now ready to create and configure the data source. For instructions, refer to the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

# Creating and Configuring an IBM DB2 Database

Use this chapter to set up a supported IBM DB2 database for your WebCenter Sites installation.

This chapter contains the following sections:

- Section 2.1, "Installing DB2"
- Section 2.2, "Creating a New DB2 Database"
- Section 2.3, "Configuring the Database"

## 2.1 Installing DB2

- 1. Uncompress the correct installation file for your distribution.
- 2. Run./db2setup
- 3. In the "Information Management Software" screen, select Install a Product.
- 4. Under "DB2 Enterprise Server Edition," (Figure 2–1) select Install New.

#### Figure 2–1 DB2 Setup Launchpad

DB2 Setup Launchpad		⊒.
Welcome Release Information Installation Requirements Upgrade Information	Install a Product as root Click Install New to launch the DB2 Setup wizard for the desired product and to install the product to a new location.	
Install a Product Exit	DB2 Enterprise Server Edition Version 9.7 DB2 Enterprise Server Edition is designed to meet the data server needs of medium to large businesses. It can be deployed on Linux, UNDX, or Windows servers of any size, from one CPU to any number of CPUs.	
	DB2 Enterprise Server Edition is an ideal foundation for building on demand enterprise-wide solutions, such as multi-terabyte size data warehouses, or high performing 24x7 available high volume transaction processing business solutions, or Web-based solutions. DB2 Enterprise Server Edition incorporates a native XML data store and delivers flexible access to XML data using XQuery, XPath, SQL, and standard reporting tools.	
	Optional features for DB2 Enterprise Server Edition are available that provide additional advanced product capabilities in areas such as database partitioning, compression, performance, workload management, and security. For more information, see http://www.ibm.com.	
	Install New Database Management and Application Development Tools	
	A suite of GUI tools for managing DB2 for Linux, UNIX, and Windows data and data-centric applications is available to install. Individually these tools provide powerful capabilities that target specific data management roles and tasks; more importantly, the components interoperate seamlessly, enabling cross-role collaboration, productivity, and effectiveness.	

5. In the "Welcome to the DB2 Setup Wizard," (Figure 2–2), click Next.

Figure 2–2 DB2 Setup Wizard - Welcome

🛃 DB2 Setup - DB2 Enterprise Server Edition	
1       Introduction         2       Software License Agreement         2       Installation type         3       Installation action directory         5       SAMP         2       DAS user         8       Installation directory         9       Partitioning options         19       Instance-owning user         11. Fenced user       For the formation setup         14. Contact       S. Summary	
Next Ethish Cance	el Help

6. In the "Software License Agreement" screen (Figure 2–3), click Accept, then click Next.



🛃 DB2 Setup - DB2 Ente	rprise Server Edition	<u> </u>
Introduction     Software License     Agreement     Installation type     Installation action     Sinstallation action     Sinstallation     directory     SAMP     D45 user     Instance setup     Partitioning     options     User     I. Fenced user     I. Fenced user     I. Tools catalog     I3. Notification     setup     I4. Contact     I5. Summary	Software License Agreement         Please read the accompanying license agreement carefully before using the Program. Below or using the Program, you agree to accept the terms of this agreement. If you se installation will not be completed and you will not be able to use the Program.         of the license agreement which accompanies WebSphere MQ, except as limited in this license. The WebSphere MQ program may not be used for any other purpose unless a full license for WebSphere MQ is purchased.         8.3) Usage Restriction – IBM Eclipse Help System         The following subset of Excluded Components and/or Separately Licensed Code was obtained from the Eclipse Foundation: Tomcat, MX4J, Lucene, Lucene HTML Parser, Eclipse Help System (herein collectively referred to as "Eclipse Code"). Notices and important information, including instructions for obtaining source code, for the Eclipse Code may be found in associated "about.html" files ("About Files") located in a directory for the Eclipse Code. These About Files are provided for informational purposes only, and notwithstanding anything to the contrary therein, the terms governing Your use of such Eclipse Code shall be as set forth above in the applicable Excluded Components or Separately Licensed Code section.         D/N:       L-CLAW-7PUR58	Ay selecting "Accept" lect "Decline",
	Read non-IBM terms	
	▲ <u>B</u> ack <u>Next</u> Einish Cancel	Help

7. In "Select the Installation Type," (Figure 2–4) select Typical and click Next.

Figure 2–4 Installation Type



**8.** In "Select installation, response file creation, or both," (Figure 2–5) select **Install DB2 Enterprise Server Edition on this Computer** and click **Next**.

Figure 2–5 Installation And/Or Response File Creation

🛃 DB2 Setup - DB2 Enterprise Server Edition	
Intraduction Select installation, response file creation, or both The DB2 Setup wizard can install DB2 Enterprise Server Edition on this computer, create a response file to install DB2 Enterprise Server Edition (DEE) partitioned database environment, viereate a response file to install DB2 on the other computers that will act as database partition directory S 5AMP C DA5 user B installation action Save mv installation settings in a response file No software will be installed on this computer Save mv installation settings in a response file No software will be installed on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software will be install DB2 enterprise Server Edition on this computer and save my settings in a response file No software will be install DB2 enterprise Server Edition on this computer and save my settings in a response file name (root/db2ese.rsp 14. Contact 15. Symmary	ponse file that you can also servers.
▲Back Next Einish Cancel	Help

**9.** In "Select the installation directory," (Figure 2–6) either enter a directory or use the default and click **Next**.

Figure 2–6 Installation Directory

🏄 DB2 Setup - DB2 Ente	erprise Server Edition	IX
1. Introduction	Select the installation directory	
2. Software License	The DB2 Setup wizard installs DB2 Enterprise Server Edition in the following directory. To select a different	
Agreement	directory, type the path or click the ellipsis button and select another directory.	
3. Installation type		
5 Installation	Share required: 894 MB	
directory	Space available: 20146 MB	
<u>6</u> . SA MP		
Z. DAS user		
<u>8</u> . Instance setup		
options		
1 <u>0</u> . Instance-owning		
user 11 September		
12. Tools estalog		
13. Notification		_
setup		
14. Contact		
15. Summary		
	ABack Next ► Einish Cancel Hei     Hei     Cancel Hei      Cancel Hei	p

**10.** In "Install the IBM Tivoli System Automation for Multiplatforms (SA MP)," (Figure 2–7) select **Do not install SA MP**, unless "SA MP" is required by your environment.



Figure 2–7 IBM Tivoli Automation for Multiplatforms (SA MP)

- 11. In "Set user information for the DB2 Administration Server" (Figure 2–8):
  - **a.** Keep the defaults, unless a previous attempt to install DB2 failed.
  - **b.** Enter a password.
  - **c.** Click Next.

🥌 DB2 Setup - DB2 Ente	erprise Server Edition			
DB2 Setup = DB2 Into     Software License     Agreement     Installation type     Installation action     S Installation     directory     SAMP     Z DAS user     B Instance setup     Partitioning     options     U. Instance-owning     user     I. Fanced user	Set user inform The DB2 Administration user with a minimal set DAS.  New user User name UID Group name GID Bacoword	nation for the DB2 Admin         Server (DAS) runs on your computer to of privileges is required to run the DAS         dasusr1         dasadm1	nistration Serv provide support requi Specify the required Use default UID	er red by the DB2 tools A user information for the
11. Fanced Iser 12. Tools catalog 13. Notication setup 14. Contact 15. Summary	Password Confirm password Home directory D Existing user User name	******* /home/dasusr1 ···		
		▲Back Next	Einish Canc	el Help

Figure 2–8 User information for the DB2 Administration Server

**12.** In "Set up a DB2 instance," (Figure 2–9) select **Create a DB2 instance** and click **Next**.

#### Figure 2–9 DB2 Instance Setup

🏄 DB2 Setup - DB2 Ente	rprise Server Edition	
Introduction     Software License Agreement     Installation type     Installation action     Installation     directory     SA MP     7. DAS user     Instance setup     Partitioning     options     10, Instance-owning     user     I. Fenced user     I. Fenced user     I. Fonced user     I. Contact     IS. Summary	Set up a DB2 instance A DB2 instance is an environment in which you store data and run applications. You ruse this product. If you would like to add this computer to an existing partitioned database environme an instance on this computer. The instance should be created on the instance-ownir server. © <u>Create a DB2 instance</u> © <u>Do not create a DB2 instance</u>	must have an instance to nt, you should not create ng database partition
	▲ <u>Back</u> Next ► Ethish Can	cel Help

**13.** In "Set up partitioning options for the DB2 instance," (Figure 2–10) select **Single partition instance** and click **Next**.

🛃 DB2 Setup - DB2 Ente	rprise Server Edition	
DB2 Setup - DB2 Enter     DB2 Setup - DB2 Enter     Introduction     Software License     Agreement     Installation type     Installation action     Sinstallation     directory     SA MP     Z. DAS user     Instance setup     Partitioning     options	<b>Set up partitioning options for the DB2 instance</b> A DB2 instance can have one or more database partitions, which exist on one or more partitioning options for this instance. The number of partitions specified will be reserved. Single partition instance The instance will reside only on this computer. Select this option if the instance will not be used in a partitioned database environment. <u>Multiple partition instance</u>	re computers. Select the rved in the services file.
10. Instance-owning user 11. Fenced user 12. Tools catalog 13. Notification setup 14. Contact 15. Summary	Selecting this option will create two response files. Refer to the DB2 Information Center to read about the additional steps needed to prepare your DPF environment. To use this functionality, you must have a Database Partitioning Feature license. Maximum logical partitions This computer will be assigned partition number 0. You can specify the maximum number of logical partitions that can exist on each database partition server. This setting applies to all database partition servers in this instance.	
	Maximum logical partitions 4 ICP/IP Settings	cel Help

Figure 2–10 Partitioning Options for the DB2 Instance

- **14.** In "Set user information for the DB2 instance owner" (Figure 2–11):
  - **a.** Keep the defaults, unless a previous attempt to install DB2 failed.
  - **b.** Enter a password.
  - c. Click Next.

🛃 DB2 Setup - DB2 Ente	erprise Server Edition			
Introduction     Software License     Agreement     Installation type     Installation action	Set user inform Specify the instance-ow functions, and will store the same as the user na	nation for the DB2 ins ming user information for the DB2 instance information in the user's ame.	stance owner instance. DB2 will use this home directory. The nam	user to perform instance e of the instance will be
<ul> <li>S. Installation directory</li> <li><u>6</u>. SA MP</li> </ul>	User name	db2inst1		
7. DAS user 8. Instance setup 9. Partitioning	UID Group name	db2lodm1	✓ <u>U</u> se default UID	
options 1 <u>0</u> . Instance-owning user	GID			
11. Fenced user 12. Tools catalog 13. Notification	Password Confirm password	****		
setup 14. Contact	Home directory	/home/db2inst1		
Ly. Jummary	○ <u>E</u> xisting user			
	oper mente			
		<b>▲</b> <u>B</u> ack	Next Einish Can	Help

Figure 2–11 User Information for the DB2 Instance Owner

- **15.** In "Set user information for the fenced user" (Figure 2–12):
  - **a.** Keep the defaults, unless a previous attempt to install DB2 failed.
  - **b.** Enter a password.
  - c. Click Next.

BB2 Setup - DB2 Enter	prise Server Edition			
Introduction     Software License     Agreement     Installation type     Installation action	Set user inform Specify the instance-ow functions, and will store the same as the user ne	nation for the DB2 ins ning user information for the DB2 instance information in the user's ame.	stance owner Instance: DB2 will use this home directory. The name	user to perform instance e of the instance will be
5. Installation directory	New user User name	db2inst1		
<u>Z</u> . DAS user <u>B</u> . Instance setup	UID		 ✓Use default UID	
9. Partitioning options 10. Instance-owning	Group name	db2ladm1		
user 11. Fenced user	Password	*****	✓Use default <u>G</u> ID	
12. Tools catalog 13. Notification setup	Confirm password	******		
14. Contact 15. Summary	$\bigcirc$ Existing user	/home/db2inst1		
	User neme		***	
		■Bark	Next 🕨 Finish Can	cel Help

Figure 2–12 User Information for the DB2 Instance Owner

**16.** In "Prepare the DB2 tools catalog," (Figure 2–13) select **Do not prepare the DB2 tools catalog** and click **Next**.



🧟 DB2 Setup - DB2 Ente	erprise Server Edition			
Introduction     Software License     Agreement     Installation type	Prepare the DB The DB2 tools catalog m to schedule common tas	2 tools catalog ust be created in order to use the Task C iks such as backups. The DB2 tools catalo	enter and scheduler. T Ig must be stored in a <sup>j</sup>	These tools allow you DB2 database.
4. Installation action 5. Installation directory	<u>P</u> repare the DB2	tools catalog		
<u>6</u> . SA MP	Instance	db2inst1	A	
<u>7</u> . DAS user <u>8</u> . Instance setup	Database			
9. Partitioning options	New	TOOLSDB		
1 <u>0</u> . Instance-owning user	⊖ E <u>x</u> isting	<select></select>		·
11. Fenced user	Schema			
12. Tools catalog	🔘 Ne <u>w</u>	SYSTOOLS		
setup 14. Contact 15. Summary	⊖ Ex <u>i</u> sting	<select></select>	4	
	O Do not prepare ti	he DB2 tools catalog		
		▲Back Next ▶	Enish Cancel	Help

**17.** In "Set up notifications," (Figure 2–14) do one of the following:

#### Figure 2–14 Notifications

🥌 DB2 Setup - DB2 Ente	rprise Server Edition
1. Introduction       2. Software License       3. Installation type       4. Installation action	Set up notifications You can set up your D82 server to automatically send e-mail or pager notifications to alert administrators when a database needs attention. The contact information is stored in the administration contact list. You need an unauthenticated SMTP server to send these notifications.
5. Installation direct 6. SA MP 7. DAS user	⊖ <u>S</u> et up your DB2 server to send notifications
8. Instance setup 9. Partitioning optic	Notification SMTP server
11. Fenced user	Administration contact list location
12. Tools catalog	💿 Local - Create a contact list on this computer
13. Notification seti 14. Summary	<u>Remote</u> - Use an existing contact list that resides on another D82 server
	Remote DB2 server
	Do not set up your DB2 server to send notifications at this time If you do not set up your DB2 server to send notifications, the health alerts are still recorded in the administration notification log.
	▲Back     Next ▶     Einish     Cancel

- If your system is a production server, select **Set up your DB2 server to send notifications**, enter a correct address for the local host, and click **Next**.
- If your system is a not a production server, you can select **Do not set up your DB2 server to send notifications at this time**, and click **Next**.
- **18.** In "Start copying files," (Figure 2–15) check that your options are correct and click **Finish**.

#### Figure 2–15 Files Copy

🏄 DB2 Setup - DB2 Enter	prise Server Edition
1. Introduction           2. Software License           3. Installation type           4. Installation action           5. Installation direct           6. SA MP	Start copying files         The DB2 Setup wizard has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files.         Current settings
Z. DAS user 8. Instance setup 9. Partitioning optio 10. Instance-owning 11. Fenced user 12. Tools catalog 13. Notification setu 14. Summary	Product to install: DB2 Enterprise Server Installation type: Typical Previously Installed Components: Selected Components: Base client support Java support SQL procedures Base server support IBM Software Development Kit (SDK) for Java(TM) Connect support Communication support - TCP/IP Replication tools Control Center DB2 data source support DB2 Instance Setup wizard DB2 Update Service First Steps Sample database source Languages: English All Products Target directory: ///01/software/DB/db2/y
r 1 J	Image: Back     Einish     Cancel     Help

**19.** Allow the installation to proceed (Figure 2–16).

Figure 2–16 DB2 Enterprise Server Edition Installation in Progress

🛓 Installing DB2 Enterprise Server Edition	
Please wait while the DB2 Setup wizard installs DB2 Ente Server Edition on your computer and performs the requir configuration. This may take several minutes.	rprise red
Task: Installing Base server support	
0%	100%
Overall progress:	
0%	100%

**20.** In "Setup has completed successfully," read the notes, check the log tab, and click **Finish**.

The installation of DB2 is now complete.

### 2.2 Creating a New DB2 Database

This section provides instructions for creating a new DB2 database.

- Section 2.2.1, "Creating a New DB2 Database Using a SQL Script"
- Section 2.2.2, "Creating a New DB2 Database Using the 'db2cc' Utility"

#### 2.2.1 Creating a New DB2 Database Using a SQL Script

You can use a SQL script to create aDB2 database (and a user for the new database) for any version of IBM DB2 that is installed on your environment, including IBM DB2 versions 9.7 and 10.1.

**Note:** If you installed IBM DB2 version 9.7, you have the option of creating a new DB2 database using the db2cc utility. For instructions, see Section 2.2.2, "Creating a New DB2 Database Using the 'db2cc' Utility."

#### To create a new DB2 database using a SQL script

1. Create a user for the new database. For example, to create a user named csuser on Linux:

useradd -d /home/csuser -m -p welcome1 csuser

- 2. Log in with DB2 instance owner credentials. For example, db2inst1.
- **3.** Create a file with the following DB2 commands. (For example, create db.sql and modify the database name, path, and user variables to match your installation):

CREATE DATABASE <DBNAME> AUTOMATIC STORAGE YES ON '<DB2\_ HOME>/Databases/<DBNAME>' DBPATH ON '<DB2\_HOME>/Databases/<DBNAME>' USING CODESET UTF-8 TERRITORY US COLLATE USING SYSTEM PAGESIZE 32768; CONNECT TO <DBNAME>; GRANT DBADM, CREATETAB, BINDADD, CONNECT, CREATE\_NOT\_FENCED\_ROUTINE, IMPLICIT\_ SCHEMA, LOAD, CREATE\_EXTERNAL\_ROUTINE, QUIESCE\_CONNECT, SECADM ON DATABASE TO USER <DBUSER>; UPDATE DATABASE CONFIGURATION USING APPLHEAPSZ 1024 DEFERRED; UPDATE DATABASE CONFIGURATION USING LOCKTIMEOUT 30 DEFERRED; UPDATE DATABASE CONFIGURATION USING APP\_CTL\_HEAP\_SZ 1024 DEFERRED; UPDATE DATABASE CONFIGURATION USING LOGFILSIZ 32768 DEFERRED; UPDATE DATABASE CONFIGURATION USING LOGFILSIZ 32768 DEFERRED; UPDATE DATABASE CONFIGURATION USING LOGSECOND 8 IMMEDIATE ; CONNECT RESET;

**4.** Create the directory for your database.

mkdir -p <DB2\_HOME>/Databases/<DBNAME>

**5.** Execute the sql script. For example:

```
db2 -tvsf createdb.sql
```

#### 2.2.2 Creating a New DB2 Database Using the 'db2cc' Utility

If you installed IBM DB2 version 9.7, follow the steps in this section to create a new DB2 database using the db2cc utility. This section also includes instructions for creating a new database user.

**Note:** The db2cc utility is only available for IBM DB2 version 9.7. For instructions on creating a new database for a later version of IBM DB2 (for example, version 10.1), see Section 2.2.1, "Creating a New DB2 Database Using a SQL Script."

- 1. Log in as db2inst1 (or your instance user created during the installation, step 14 on page 2-11).
- 2. Navigate to: ./sqllib/bin and run db2cc.
- **3.** In the "Control Center View" screen (Figure 2–17), select Advanced.

Figure 2–17 Control Center View

ſ	Control Center View				
	Control Center View				
	Specify the Control Center view that you want to display.				
	⊖ <u>B</u> asic				
	<u>▲</u> dvanced				
	⊖ <u>C</u> ustom <u>M</u> odify				
	- Details-				
	The advanced view displays all objects and actions available in the Control Center.				
✓Show this window at startup time					
	OK Cancel Help				

- 4. In the "Control Center," open the application for creating a database (Figure 2–18):
  - **a.** Click the plus sign next to the tree option **All Systems**.

#### Figure 2–18 Control Center

🔁 Control Center 🎱				
Control Center Selected Edit View Tools Help				
▝▙▝▝▝▙▝▆▝▖▓▖▋▝▓▖ᡛ▏▏	◙ ≔ < ?			
🛅 Object View				
Control Center	All Databases			
All Systems	Name 🔶 System 🗧	¢ Instance ≑   Type ≑   Database ≑   Path ≑   Commen		
	0 of 0 items displayed	Az 3 → 5 0 × 5 Default View View		
	🗀 All Databases	() Help ×		
	Actions:	Select an object from the list above to display more		
	Create New Database			
U		AA		

- **b.** Click the expanded branch **All Databases**. (If you have not created a database previously, this branch is empty.)
- **c.** Right-click the branch **All Databases** and select **Create Database > Standard**.
- **5.** In "Specify a name for your new database" (Figure 2–19):
  - **a.** Enter a name for this database.
  - **b.** Select the check box **Enable database for XML**.
  - **c.** In the drop-down "Default bufferpool and table space page size," select **32** and click **Next**.



殆 Create Data	base Wizard	
<u>1</u> . Name	Specify a name for your new database	
2. Storage <u>3</u> . Region <u>4</u> . Summary	This wizard helps you create and tailor a new database. To create a basic database, type a new name, sele drive, and click Finish. If you want to tailor the database to your requirements, click Next to continue. <u>Task</u> <u>Overview.</u>	et a
	Database name	
	Default directory /home/db2inst1	
	Alias	
	Comment	
	<ul> <li>Enable database for XML (Code set will be set to UTF-8)</li> <li>Restrict access to system catalogs</li> <li>Let DB2 manage my storage (automatic storage)</li> <li>I want to manage my storage manually</li> <li>Default bufferpool and table space page size 4 K 7</li> </ul>	
	Next	Cancel

6. In "Specify where to store your data," (Figure 2–20) click Next (a value is unnecessary, as we kept the default option of Let DB2 manage my storage (automatic storage), on the previous page).

Figure 2–20 Location for Your Data

🔒 Create Data	base Wizard			
<u>1</u> . Name	Specify where to store your data			
2. Storage 3. Region 4. Summary	In an <u>automatic storage database</u> , the data is stored in one or more storage paths. If you do not specify additional storage paths, the database path specified on the Name page is used as the single storage path. If you clear the checkbox, the database path will not be used as a storage path. In this case, you must specify one or more storage paths in the storage paths list. If you do not want to create an automatic storage database, return to the Name page and click the radio button: I			
	want to manage my storage manually.			
	✓Use the database path as a storage path: /home/db2inst1			
	Storage Path			
	Eemove			
	0 of 0 items displayed 🖓 🕸 🛱 Default V 🎓 View			
	▲Back <u>N</u> ext <u>Finish</u>	Iancel		

**7.** In "Specify the locale for this database," (Figure 2–21) ensure that the drop-down "Code set" displays UTF-8 and click **Next**.

#### Figure 2–21 Database Locale

🔁 Create Dat	tabase Wizard 🥮 👘				
<u>1</u> . Name	Specify the	ocale for this database.			
<u>2</u> . Storage <u>3</u> . Region	The locale (territory different character	The locale (territory and code set) determines the set of characters your database uses. It also determines how different character strings are compared.			
<u>4</u> . Summary	-Database locale-	Database locale			
	Country/Region c				
		Territory US			
		Code set UTF-8			
	Databases enabled for XML must use code set UTF-8. Other values will disable XML functions.				
	Collating Sequence				
	System	Character strings are sorted according to the code set you specify above.			
	<u>l</u> dentity	Character strings are sorted according to their hexadecimal value.			
		Character strings are sorted using the Compatibility Encoding Scheme for UTF-16: 8-Bit specification (CESU-8)			
		Character strings are sorted using the Unicode Collation Algorithm 4.0.0, with normalization on.			
	UCA400_L <u>T</u> H	Character strings are sorted as per UCA400_NO, but using the Royal Thai dictionary rules for the Thai characters.			
	O <u>C</u> ompatibility	Character strings are sorted using the DB2 version 2 collating sequence.			
	ONLISChar	Character strings are sorted using System with additional rules for the specific codeset/territory.			
		4 Park	Nevt Einish Cancel		
		▲ <u>B</u> atk			

**8.** In "Review the actions that will take place when you click finish," (Figure 2–22) confirm that everything looks correct and click **Finish**.

Figure 2–22 Review Actions

🔒 Create Dat	abase Wizard	
<u>1</u> . Name	Review the actions that will take place when you click Finish	
<u>1</u> . Name <u>2</u> . Storage <u>3</u> . Region <u>4</u> . Summary	Review the actions that will take place when you click Finish         When you click Finish, the wizard creates a database and the necessary table spaces. To change any of the parameters, go back to the appropriate page in this wizard. To view the equivalent command, click Show Command         Create database VMDB291         Automatic storage database: Yes         Table space prefetch size: Automatic         Default Automatic Storage User Table Space         Default Automatic Storage Catalog Table Space         Default database page size: 32 K         Restrict system catalog access: No         Territory. US         Code set: UTF-8 (XML enabled)         Collating type: SYSTEM         Storage paths:	
	/home/db2inst1	
	<u>▲Back</u>	Cancel

**9.** Allow the "Progress" window (Figure 2–23) to complete creating the database. The window will close automatically when the database has been created.



Figure 2–23 Progress Dialog Box

10. The database has now been created and is displayed in the control center.

Figure 2–24 shows that a single database named vmdb291 is present in the control center.

#### Figure 2–24 vmdb291 Database

🔁 Control Center				
Control Center Selected Edit View Tools Help				
┺╬╬╔╠║╗	• = { ?			
🛅 Object View				
Control Center	All Databases			
All Systems	Name 🔶 System	n ≑ Instance ≑ Type ≑ Database ≑ Path ≑ Commen		
All Databases	VMDB291 LOCAL	H db2inst1 Local VMDB291 /hom		
	1 of 1 items displayed	↓ <sup>A</sup> Z 🐎 🕀 🛱 🎗 🛱 🕅 K 🖁 Default View 🌷 View		
	🗀 All Databases	(?) Help ×		
	Actions:	Select an object from the list above to display more		
	Create New Database			
		21 N		
	1	5a,		

- **11.** Create a user for the new database
  - **a.** Go to the command line. As the system user, create a new user named csuser that will be used to access the database from your Oracle product.

For example, to create a user named csuser on Linux:

useradd -d /home/csuser -m -p demo4132 csuser

- **b.** Go back to the "Control Center" and add the user:
  - **a.** Expand the newly created database in the tree by clicking the plus sign, then expanding the branch **User and Group Objects.**
  - **b.** Click **DB Users** to open the right-hand panel.
  - c. Right-click the branch DB Users (Figure 2–25) and select the Add option.

#### Figure 2–25 DB Users

💫 Control Center						
Control Center Selected Edit View Tools Help						
┡_ ᡩ ᅆ ॼ ᆴ [ ♀ ゑ ⊑ │ ?						
C Object View						
Control Center	LOCALHOST - db2inst1 - VMDB291	- DB Users				
💾 🛅 All Systems	Name 🔶					
🖃 🧰 All Databases	A DB2INST1					
— 🛅 Tables						
- Views						
- Allases						
Nicknames						
- Chemas	1 of 1 items displayed	😒 🕀 🛱 🖉 📓 Default View 🍐 View				
- 🦳 Indexes						
— 🎦 Table Spaces	DB Users	2 Help X				
- 🗁 Event Monitors						
🗕 🧰 Buffer Pools	Actions: Se	lect an object from the list above to display more				
🖭 🗀 Application Objects	🗘 Add New User					
🚍 🧀 User and Group Objects						
— 🧁 DB Users						
🖵 🗀 DB Groups						
💼 🧰 Federated Database Objects						
🛏 🛅 XML Schema Repository (XSR)						
	1					
	F					

- **c.** In the "Add User" application (Figure 2–26):
  - **a.** Select the user that was created in step a on page 2-24.
  - **b.** Under "Authorities," select all check boxes.
  - c. Click OK.

Figure 2–26	Add User Dialog Box
-------------	---------------------

Add User							
LOCALHOST - db2inst1 - VMDB291							
View	Table Space	Function	Proc	edure	Method	Package	
	Database	Schema		Та	able	Index	
Specify	y a user name. You ca	an select a user	name fro	om the list	: or type one	≘ in.	1
User	ADM	¥					
Choose	e the appropriate auth	norities to grant	to the se	elected us	er.		
Autho	ornies						
	reate tables						
	reate packages						
R	egister routines to exi	ecute in databa	se mana	ger's proc	ess		
D	atabase administrato	r authority					
C	reate <u>s</u> chemas implici	itly					
A	ccess to the load utilit	v					
C	reate external r <u>o</u> utine	5					
C	onnect to <u>q</u> uiesced da	atabase					
S(	Security administrator authority						
	OK Cancel Apply Reset Show SQL Help						

## 2.3 Configuring the Database

- **1.** Right-click the database that you created (listed in the branch that displays the database icon) and select **Configure Parameters**.
- **2.** In "Database Configuration":
  - **a.** Scroll through the list of options and replace the values of the following parameters with the values shown in Table 2–1.

Parameter	Value
LOCKTIMEOUT	30
APP_CTL_HEAP_SZ	1024
APPHEAPSZ	1024
LOGFILSIZ	32768
	<b>Note:</b> 32768 is the recommended value for this parameter. However, for large publishing jobs, this parameter may need further tuning to suit your setup.

 Table 2–1
 Database Configuration - Parameters

**b.** Click **OK** (Figure 2–27).

Figure 2–27 Database Configuration - VMDB291 Dialog Box

R	🔉 Database Configui	ration - VMDB291						×
	Select the value field of a percenter to change its value							
	♦ Keyword	Value é	pending Pending	value	\$ Pen	ding Value Effective	⇔ Dyn	
	Applications							
	AVG_APPLS	AUTOMATIC(1)					Yes	_
	DLCHKTIME	10000					Yes	
	LOCKTIMEOUT	None						
	MAXAPPLS	AUTOMATIC(40)					Yes	
	MAXFILOP	64					Yes	
	MAXLOCKS	AUTOMATIC(60)					Yes	
	🔻 Environment							
	ALT_COLLATE							
	CODEPAGE	1208						
	CODESET	UTF-8						
	109 of 109 item	ns displayed	14 Sb	යුදු දැන	) Defa	ult View*		N
	105 0/ 105 //0/	is displayed	* Z 🖓 I	01 81	3 00.0			
Г	Hint							
Ľ								
OK. Cancel Agoly Show Command Help								

**3.** Right-click the database that you created (listed in the branch that displays the database icon) and select **Restart**.

A status window flashes. This does not mean that the operation has been completed. Typically, you will need to wait 2 to 3 minutes for the system to restart.

- **4.** Stop the instance:
  - a. Expand the following "Control Center" tree branch (Figure 2–28): All Systems > LOCALHOST > Instances > <name\_of\_your\_instance>
  - **b.** Right-click the instance.
  - **c.** Select **Stop**.

Figure 2–28 Stop an Instance

🔁 Control Center						
Control Center Selected Edit View Tools Help						
Dbject View						
Control Center	LOCALHOST - db2inst1 - VMDB2s	91 – DB Users				
All Systems	Name ≑					
	A DB2INST1					
Instances	A CSUSER					
All Databases						
🗕 🦳 Tables						
— 🗀 Views						
— 🗀 Aliases	2 of 2 items displayed	'z 3P 9⊇ UHU K k Default View View				
Nicknames						
	🗀 DB Users					
	Actions	Select an object from the list above to display more				
- indexes	Add New User					
— 🛅 Table Spaces						
- 🗀 Event Monitors						
🗕 🗀 Buffer Pools						
😐 🗀 Application Objects						
User and Group Objects						

- d. In the "Confirm stop" dialog box, click OK.
- e. Wait for the message that the instance has been stopped.
- **5.** Start the instance:
  - a. In the "Control Center" tree (Figure 2–29), expand All Systems, LOCALHOST, Instances, and then expand the <name\_of\_your\_instance>.
  - **b.** Right-click the instance.
  - c. Select Start.

#### Figure 2–29 Start an Instance

🔁 Control Center						
Control Center Selected Edit View Tools Help						
▙ 4 않 ☞ 늘 별 몇 몇 0 ☷ < ?						
C Object View						
Control Center	LOCALHOST - db2inst1 - VMDB3	291 – DB Users				
🚍 🧰 All Systems	Name 🔶					
	A DB2INST1					
🔄 🛅 Instances						
db2inst1						
Databases						
All Databases						
	2 of 2 items displayed	A 診 尋 師 ピ ▷ Default View ^ View				
+- 🎦 Cache Objects	DB Users	) Help X				
Triggers						
🗕 🛅 Schemas	Actions:	Select an object from the list above to display more				
🗕 🧀 Indexes	🔂 Add New User					
🗕 🗀 Table Spaces						
- 🗀 Event Monitors						
🗕 🗀 Buffer Pools						
🛃 🗀 Application Objects						
🚍 🧀 User and Group Objects						
1991 [1993]	•					

**6.** Wait for the message that the instance has been started. This does not mean that the operation has been completed. Typically, you will need to wait 2 to 3 minutes for the system to restart.

Your database is now ready for use with your Oracle software product.

# Creating and Configuring a Microsoft SQL Server Database

Use this chapter to set up a SQL Server database for your WebCenter Sites installation.

This chapter contains the following section:

Section 3.1, "Creating and Configuring a SQL Server 2008 R2 or 2012 Database"

## 3.1 Creating and Configuring a SQL Server 2008 R2 or 2012 Database

- 1. Use the Windows Account Manager to create a new user account for the WebCenter Sites database user (for example, csuser), and assign a password to the account.
- 2. Open SQL Server Manager Studio.
- 3. Log in to MS SQL Server:
  - **a.** Enter your user name and password (the default user name is sa).
  - b. Click Connect.
- 4. Create the database:
  - **a.** In the left-hand tree, expand the **Databases** node.
  - **b.** Right-click the **Databases** node and select **New Database** from the pop-up menu.
  - c. In the "New Database" window, enter a name for your database and click OK.

Your newly created database appears under the **Databases** node in the tree.

- **5.** In the tree, expand the node representing your newly created database, then expand the **Security** node underneath it.
- 6. Click the Users tab.
- **7.** Right-click within the white space underneath the list of existing users and select **New User** from the pop-up menu.
- 8. In the "Database User New" window, enter the user name of the WebCenter Sites database user (which you created in step 1 of this procedure) into the User name and Login name fields.
- **9.** In the "Owned Schemas" and "Role Members" areas, select the **db\_owner** check box.
- **10.** Click **OK**.

The database is created.

**11.** After the database has been created, turn on the READ\_COMMITED\_SNAPSHOT as shown below. For more information, refer to the vendor documentation.

ALTER DATABASE <your\_db\_name> SET ALLOW\_SNAPSHOT\_ISOLATION ON GO ALTER DATABASE <your\_db\_name> SET READ\_COMMITTED\_SNAPSHOT ON GO

Database configuration is complete.

**12.** You are now ready to create and configure the data source using the user name and password of the WebCenter Sites database user you created in step 1 of this procedure. For instructions, refer to the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

# Part II

# **Installing an Application Server**

Part II contains the following chapters:

- Chapter 4, "Installing Oracle WebLogic Server"
- Chapter 5, "Installing Apache Tomcat Application Server"
- Chapter 6, "Installing IBM WebSphere Application Server"
# Installing Oracle WebLogic Server

This chapter is not exhaustive, as it covers the installation of Oracle WebLogic Application Server so far as needed to install and run WebCenter Sites. For more extensive documentation on the installation process and best practices, see the Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server.

## 4.1 WebLogic Server Installation Steps

- **1.** Run the WebLogic Server installer (on UNIX, make sure your DISPLAY variable is set).
- 2. In the "Welcome" screen, as shown in Figure 4–1, click Next.



🛃 Oracle In	staller - Webl	.ogic 10.3.5.0	_ ×
<b>Welcome</b> This installer will guide you through the instal WebLogic 10.3.5.0	lation of		ORACLE
	Instructions Click the Next but change entries in may quit the insta	on to proceed to the nex a previous screen, click th ller at any time by clicking	t screen. If you want to e Previous button. You the Exit button.
ORACLE			
Exit			Previous Next

**3.** Either use an existing WebLogic home directory or select Create a new WebLogic Home and browse for a directory (Figure 4–2). Click **Next**.

Figure 4–2 Middleware Home Directory Location

Oracle Installer - WebLogic 10.3.5.0	_ × _
<b>Choose Middleware Home Directory</b> Specify the Middleware Home where you wish to install WebLogic 10.3.5.0.	ORACLE
Middleware Home Type	
O Use an existing Middleware Home	
Create a new Middleware Home	
Middleware Home Directory	
/opt/Oracle/Middleware	
Provise Deset	
L Drowsen. Keset	
Exit	Previous Next

**Note:** The WebLogic home directory will be referred to throughout this chapter as <wl\_home>.

**4.** In the "Register for Security Updates" screen, as shown in Figure 4–3, enter the appropriate information and click **Next**.

🛃 Oracle Installe	er - WebLogic 10.3.5.0 _ ×
Register for Security Updates Provide your email address for security updates and to initiate configuration manager.	ORACLE
Email: Use M	y Oracle Support email address/username
✓ I wish to receive security updates via My Or Support Password:	acle Support
E <u>x</u> it	Previous Next

Figure 4–3 Security Update Registration

5. Select Custom Install Type (Figure 4–4) and click Next.

#### Figure 4–4 Install Type

<b></b>	Oracle Installer - WebLogic 10.3.5	.0 _ ×
Choose Install Select the type of in:	I Type stallation you wish to perform.	ORACLE
⊛ Түрі (⊘́	cal Install the following product(s) and component(s): • WebLogic Server • Oracle Coherence • Oracle Enterprise Pack for Eclipse	
⊂ Cust	om Choose software products and components to install a configuration.	and perform optional
E <u>×</u> it		Previous Next

**6.** In the "Choose Products and Components" screen (Figure 4–5), the required components are selected by default. If you wish to install other components, select their check boxes. Click **Next**.

Figure 4–5	Products and	Components	for Ins	stallation
------------	--------------	------------	---------	------------

🛃 Oracle Installer - V	VebLogic 10.3.5.0 _ ×
Choose Products and Components Grayed selections are already installed. Double-click headings to reveal or collapse selections.	ORACLE <sup>.</sup>
<ul> <li>WebLogic Server</li> <li>Core Application Server</li> <li>Administration Console</li> <li>Configuration Wizard and Upgrade Framework</li> <li>Web 2.0 HTTP Pub-Sub Server</li> <li>WebLogic SCA</li> <li>WebLogic JDBC Drivers</li> <li>Third Party JDBC Drivers</li> <li>WebLogic Server Clients</li> <li>WebLogic Server Plugins</li> <li>UDDI and Xquery Support</li> <li>Server Examples</li> <li>Evaluation Database</li> <li>Oracle Coherence</li> </ul>	Description         Click on a product or component to display a description.         Approximate Installed Size*         Highlighted item:         Common artifacts:       49.8 MB         Total of all selected items:       1,077.3         *Installer requires free disk space approximately 2x this total
E⊻it	Previous Next

7. In the "JDK Selection" screen (Figure 4–6), select both JDKs and then click Next.

#### Figure 4–6 JDK Selection

💽 Oracle Installer - Web	Logic 10.3.5.0 _ ×
JDK Selection JDK(s) chosen will be installed. Defaults will be used in script string-substitution if installed.	ORACLE
	💍 Discard Changes
Bundled JDK:	Approximate installed size*
SUN SDK 1.6.0_24	Highlighted item:
✓ Oracle JRockit 1.6.0_24 SDK	All selected bundled JDK's: 365.5 MB
	Total of all selected items: 1,442.8 MB
	*Installer requires free disk space approximately 2x this total
Local JDK:	
Browse	
E <u>x</u> it	Previous Next

**8.** In the "Choose Product Installation Directories" screen (Figure 4–7), verify the product installation directories and then click **Next**.

rigule 4–7 Floudel installation Directories	Figure 4–7	Product	Installation	Directories
---	------------	---------	--------------	-------------

Oracle Installer - WebLogic 10.3.5	i.0 _ ×
<b>Choose Product Installation Directories</b> Provide the directories where you wish to install WebLogic 10.3.5.0.	ORACLE
	💍 Discard Changes
Middleware Home Directory	
/opt/Oracle/Middleware	
Product Installation Directories The Product Home might contain shared utilities and any products or component are not set. WebLogic Server:	nts for which unique directories
/opt/Oracle/Middleware/wiserver_10.3	Browse
Oracle Coherence:	,
/opt/Oracle/Middleware/coherence_3.6	Browse
Oracle Enterprise Pack for Eclipse:	
/opt/Oracle/Middleware/oepe_11gR1P54	Browse
E <u>x</u> it	Previous Next

**9.** In the "Installation Summary" screen (Figure 4–8), click **Next** to start the WebLogic installation.





10. The installation starts. Close the window after completion (Figure 4–9).

Figure 4–9 Installation	1 Complete
-------------------------	------------

🗟 Oracle Ir	nstaller - WebLogic 10.3.5.0	_ × _
Installation Complete Click the Done button to exit the installer.		ORACLE
	Message Congratulations! Installation is complete.	
ORACLE	🗹 Run Quickstart	
E <u>×</u> it		Previous Done

**11.** After you have successfully installed WebLogic Server, you will need to configure WebLogic Server for WebCenter Sites before installing WebCenter Sites. For information about the WebCenter Sites installation process and WebLogic configuration procedures, see the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

# **Installing Apache Tomcat Application Server**

**Note:** In this chapter, we assume that you are using a UNIX based system. Therefore, the commands that are provided in this chapter for your reference are only for UNIX based systems. Commands for Windows based systems may be different.

## 5.1 Tomcat Installation Steps

#### To install the Tomcat Application Server

- 1. Download and install a supported JDK.
- 2. Decompress the Tomcat archive file:

tar xvfz apache-tomcat-<version>.tar.gz

- 3. Rename the apache-tomcat-<version> directory and move it to a desired location. (The rest of this section refers to the new path of this directory as <tomcat\_home>.)
- **4.** Create a file named setenv.sh in the <tomcat-home>/bin directory. Add the following lines to the file:

CATALINA\_HOME=<tomcat\_home> CATALINA\_PID="\$CATALINA\_HOME"/tomcat.pid

Adding tomcat.pid ensures that the Tomcat process is killed when the shutdown.sh command is executed with the -force argument.

**5.** Set the JAVA\_HOME variable to the JDK folder of the version of Java that will be used. For example:

export JAVA\_HOME=/opt/jdk1.6.0.39

6. Start the application server by running the startup command.

<tomcat\_home>/bin/startup.sh

7. Access the following URL in a web browser: http://<hostname>:8080/

This brings you to Tomcat's default homepage.

8. Shut down the application server by running the shutdown command.

<tomcat\_home>/bin/shutdown.sh -force

**9.** After you have successfully installed Tomcat, you will need to configure Tomcat for WebCenter Sites before installing WebCenter Sites. For information about the

WebCenter Sites installation process and WebLogic configuration procedures, see the Oracle Fusion Middleware WebCenter Sites Installation Guide.

# Installing IBM WebSphere Application Server

This chapter describes how to install WebSphere Application Server version 8. It contains the following steps:

- Section 6.1, "Installing IBM Installation Manager"
- Section 6.2, "Installing WebSphere Application Server Using IBM IM"
- Section 6.3, "Updating WebSphere Application Server"

### 6.1 Installing IBM Installation Manager

This section describes how to install the IBM Installation Manager.

#### To install the IBM Installation Manager

**1.** Unzip the IBM Installation Manager to a directory and execute the following command:

cd <iim\_directory> (need to add this to dir list)
./install

This command starts the installer for the IBM Installation Manager.

2. In the "Install Packages" screen, select the IBM IM version you wish to install (Figure 6–1).

#### Figure 6–1 Installation Packages

	IBM Installation Manager		_
Install Packages	25		
Select packages to install:			
			Panet
Installation Packages	Status	Vendor	License Key Type
▼ 🗹 🧊 IBM® Installation Manager			
🗹 🛱 Version 1.4.3.1	Will be installed	IBM	No key required
		Chack for Other V	Arcians Even and Extensions
Show all versions		<u>C</u> heck for Other V	Versions, Fixes, and Extensions
Show <u>a</u> ll versions  Details		<u>Check for Other V</u>	Versions, Fixes, and Extensions
Show all versions Details IBM® Installation Manager 1.4.3.1		<u>Check</u> for Other V	Versions, Fixes, and Extensions
Show <u>all versions</u> Details IBM® Installation Manager 1.4.3.1 IBM® Installation Manager More info		<u>Check</u> for Other \	Versions, Fixes, and Extensions
Show <u>all versions</u> Details IBM® Installation Manager 1.4.3.1 IBM® Installation Manager <u>More info</u> • Repository: /tmp/was8/iim		<u>C</u> heck for Other \	Versions, Fixes, and Extensions
Show <u>all versions</u> Details IBM® Installation Manager 1.4.3.1 IBM® Installation Manager <u>More info</u> • Repository: /tmp/was8/iim		<u>C</u> heck for Other \	Versions, Fixes, and Extensions
Show <u>all versions</u> Details IBM® Installation Manager 1.4.3.1 IBM® Installation Manager <u>More info</u> • Repository: /tmp/was8/iim		<u>C</u> heck for Other \	/ersions, Fixes, and Extensions
Show <u>all versions</u> Details IBM® Installation Manager 1.4.3.1 IBM® Installation Manager <u>More info</u> Repository: /tmp/was8/iim		<u>C</u> heck for Other \	/ersions, Fixes, and Extensions
Show <u>all versions</u> Details IBM® Installation Manager 1.4.3.1 IBM® Installation Manager <u>More info</u> Repository: /tmp/was8/iim		<u>C</u> heck for Other \	/ersions, Fixes, and Extensions
Show <u>all versions</u> Details  IBM® Installation Manager 1.4.3.1  IBM® Installation Manager <u>More info</u> Repository: /tmp/was8/iim		<u>C</u> heck for Other \	/ersions, Fixes, and Extensions

#### 3. Click Next.

**4.** Read and accept the license agreement (Figure 6–2), then click Next.

Figure 6–2 License Agreement

۵	IBM Installation Manager _					
	Install Parkages					
	Read the following license agreements carefully.					
	Install Licenses Location Summary					
	International Program License Agreement					
	Part 1 - General Terms					
	BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,					
	- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM; AND					
	- PROMPTLY RETURN THE UNUSED MEDIA, DOCUMENTATION, AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM.					
	1. Definitions					
	"Authorized Use" - the specified level at which Licensee is authorized to execute or run the Program. That level may be measured by number of users, millions of service units ("MSUs"), Processor Value Units ("PVUs"), or other level of use specified by IBM.					
	"IBM" - International Business Machines Corporation or one of its subsidiaries.					
	"License Information" ("LI") - a document that provides information and any additional terms specific to a Program. The Program's LI is available at www.ibm.com/software/sla. The LI can also be found in the Program's directory, by the use of a system command, or as a booklet included with the Program.					
	"Program" - the following, including the original and all whole or partial copies: 1) machine-readable instructions and data, 2) components, files, and modules, 3) audio-visual content (such as images, text, recordings, or pictures), and 4) related licensed materials (such as keys and documentation).					
	"Proof of Entitlement" ("PoE") - evidence of Licensee's Authorized Use. The PoE is also evidence of Licensee's eligibility for warranty, future update prices. If any, and potential special or promotional opportunities. If IBM does not provide Licensee with a PoE, then IBM may accept as the PoE the original paid sales receipt or other sales record from the party (either IBM or its reseller) from whom Licensee obtained the Program, provided that it specifies the Program name and Authorized Use obtained.					
	⊙ [I accept the terms in the license agreement] Print All					
	O I do not accept the terms in the license agreement					
0	Cancel					

**5.** Enter the path to the Installation Manager Directory, as shown in Figure 6–3, and click **Next**.

Figure 6–3 Installation Manager Location

	IBM Installation Manager	-
install Packa	ges	-1
Select a location	n for Installation Manager.	4
Install	Licenses Location Summary	
0nce inst	alled, IBM Installation Manager will be used to install, update, modify, manage and uninstall your pa	kages.
Installation <u>M</u> ar	ager Directory: /opt/IBM/InstallationManager/eclipse	Br <u>o</u> wse
Disk Space Int	formation	
Volume	Available Space	
)	< <u>B</u> ack <u>N</u> ext >	Install

**6.** Click **Install** to start the installation process (Figure 6–4).

#### Figure 6–4 Target Location

IDMINIStanation	Manager	_
Install Packages		
Review the summary information.		7
Install Licenses Location Summary		
Package Group Name: IBM Installation Manager		
Installation Directory: /opt/IBM/InstallationManager/eclipse		
Packages		
Packages		
Environment	Disk Space Information	
Environment Arabic, Brazilian Portuguese, Czech, Danish, English, French, German, Graek, Huangaign, Jalian, Janapago, Karpan, Libuanian, Belich	Disk Space Information	Total Available Space
<b>Environment</b> Arabic, Brazilian Portuguese, Czech. Danish, English, French, German. Greek, Hungarian, Italian, Japanese, Korean, Lithuanian, Polish, <u>R</u> ussian, Simplified Chinese, Slovenian, Spanish, Traditional Chinese.	Disk Space Information	Total Available Space 175.64 GB
<b>Environment</b> Arabic, Brazilian Portuguese, Czech, Danish, English, French, German, Greek, Hungarian, Italian, Japanese, Korean, Lithuanian, Polish, Russian, Simplified Chinese, Slovenian, Spanish, Traditional Chinese, Turkish	Disk Space Information / Total Download Size: 96.39 MB	Total Available Space 175.64 GB
<b>Environment</b> Arabic. Brazilian Portuguese. Czech. Danish. English. French. German. Greek, Hungarian. Italian. Japanese. Korean. Lithuanian. Polish. Russian. Simplified Chinese. Slovenian. Spanish. Traditional Chinese. Turkish	Disk Space Information / Total Download Size: 96.39 MB Total Installation Size: 167.22 MB	Total Available Space 175.64 GB
Environment Arabic, Brazilian Portuguese, Czech, Danish, English, French, German, Greek, Hungarian, Italian, Japanese, Korean, Lithuanian, Polish, Russian, Simplified Chinese, Slovenian, Spanish, Traditional Chinese, Turkish > Repository Information	Disk Space Information / Total Download Size: 96.39 MB Total Installation Size: 167.22 MB	Total Available Space 175.64 GB
Environment Arabic, Brazilian Portuguese, Czech, Danish, English, French, German. Greek, Hungarian, Italian, Japanese, Korean, Lithuanian, Polish, Russian, Simplified Chinese, Slovenian, Spanish, Traditional Chinese, Turkish > Repository Information	Disk Space Information / Total Download Size: 96.39 MB Total Installation Size: 167.22 MB	Total Available Space 175.64 GB

The installer retrieves the required installation files, as shown in Figure 6–5.

#### Figure 6–5 Installation Files

IBM Installatio	n Manager	_ 0
Install Packages		4
		Provide State
Install / Licenses / Location / Summary /		
Target Location		
Package Group Name: IBM Installation Manager		
Installation Directory: /opt/IBM/InstallationManager/eclipse		
Packages		
Packages		
U IBME INSTAILATION MANAGER 1.4.3.1		
Environment	Disk Space Information	
Arabic, Brazilian Portuguese, Czech, Danish, English, French, German, Greek, Hungarian, Italian, Janapase, Korean, Lithuanian, Polish		Total Available Space
Russian, Simplified Chinese, Slovenian, Spanish, Traditional Chinese,	/	175.64 GB
Turkish		
	Total Download Size: 96.39 MB	
	Total Installation Size: 167.22 MB	
Repository Information		
alling.: Retrieving files. 78 MB of 96 MB (82%) completed.		1
		Pause Download Canc

**7.** When the installation completes, restart the Installation Manager. We will now use the IBM Installation Manager to install WebSphere Application Server.

## 6.2 Installing WebSphere Application Server Using IBM IM

This section assumes you have successfully installed IBM IM.

#### To install WebSphere Application Server

- Unzip the IBM WAS installation directories to a temporary folder. For example: /tmp/was8
- **2.** Change to the IBM IM directory and launch the installer. Once the installer is launched, click **Install**.
- **3.** Click the **Repositories** link and configure the repository for installing the WebSphere Application Server (Figure 6–6).

Figure 6–6 Repositories Link

🗋 IBM Installation Manager 🗕 🗆
Install Packages
Installation Manager cannot find any packages to install. In order to access packages, you must configure a repository connection and ensure that you can access the network or your repository media.
Check the following areas for problems:
Repository connections: Packages are stored in repositories that you must connect to. Configure repository connections on the
Passport Advantage settings: If you are installing packages from the Passport Advantage site, configure the Passport Advantage
Proxy settings: Your work environment might require proxy settings to connect to repositories. Configure these settings on the Proxy
Firewall and network access: Firewall settings and network access problems can affect your ability to view and select packages. Correct firewall settings and resolve access issues on your system. Then click <u>Refresh</u> to retry the corrected settings and review packages.
Back     Next >     Install     Cancel

4. Click Add Repository... and browse to the temporary directory where you extracted the WAS8 installer files (/tmp/was8) and select the respositories.config file (Figure 6–7).

Figure 6–7 Add a Repository Dialog Box

Θ		Preferences (Filtered)	×
type filter text	4	Repositories	
Repositories Internet	· · · · · · · · · · · · · · · · · · ·	Repositories:	
Passport Adva	antage	Location Conne	Add <u>R</u> epository
		Add Dowosite ar	<u>E</u> dit Repository
	Add a rei	Add Repository	Remo <u>v</u> e Repository
	Specify a	repository and add to the repository preference list.	Move <u>U</u> p
	Repository	м	<u>M</u> ove Down
	/tmp/wast	8/repository.config	<u>Clear Credentials</u>
	[/emp/wast		Test Connections
			ges (including the
		Cancel	к
			efaults <u>A</u> pply
			Cancel OK

5. Click OK.

IBM IM identifies the version to be installed based on your repository.

6. Select the appropriate version and click Next (Figure 6–8).

Fiaure	6–8	Version	Selection
guie			0010011011

BM Installatio	on Manager		_ o x
Install Packages Select packages to install:			-
Installation Packages	Status	Vendor	License Key Type
▽ 🗹 🗊 IBM WebSphere Application Server Network Deployment			
☑ Î <sub>10</sub> Version 8.0.0.0	Will be installed	IBM	
□ Show all versions		<u>C</u> heck for Other Versic	ons, Fixes, and Extensions
IBM WebSphere Application Server Network Deployment 8.0.0. IBM WebSphere Application Server Network Deployment is a productio application server for the deployment of enterprise web services solution beyond the WebSphere Application Server base edition because it provide • Repository: /tmp/was8	o n-ready Java Platform, ions for dynamic e-busi vides advanced web se	Enterprise Edition (Java E ness. It is the next level rvices and clustering cap	E) compliant in application serving abilities. <u>More info</u>
0	< <u>B</u> ack	<u>N</u> ext >	Install Cancel

7. Read and then accept the License agreement (Figure 6–9). Click Next.

#### Figure 6–9 License Agreement

۲	IBM Installation Manager _ 🗆 🗴
	Install Packages
	Read the following license agreements carefully.
(	Install Licenses Location Features Summary
	International Program License Agreement
	Part 1 - General Terms
	BY DOWNLOADING, INSTALLING. COPYING, ACCESSING. CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS.
	- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM; AND
	- PROMPTLY RETURN THE UNUSED MEDIA. DOCUMENTATION, AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM.
	1. Definitions
	"Authorized Use" - the specified level at which Licensee is authorized to execute or run the Program. That level may be measured by number of users, millions of service units ("MSUs"), Processor Value Units ("PVUs"), or other level of use specified by IBM.
	"IBM" - International Business Machines Corporation or one of its subsidiaries.
	"License Information" ("LI") - a document that provides information and any additional terms specific to a Program. The Program's LI is available at www.ibm.com/software/sla. The LI can also be found in the Program's directory, by the use of a system command, or as a booklet included with the Program.
	"Program" - the following, including the original and all whole or partial copies: 1) machine-readable instructions and data. 2) components, files, and modules, 3) audio-visual content (such as images, text, recordings, or pictures), and 4) related licensed materials (such as keys and documentation).
	"Proof of Entitlement" ("PoE") - evidence of Licensee's Authorized Use. The PoE is also evidence of Licensee's eligibility for warranty, future update prices, if any, and potential special or promotional opportunities. If IBM does not provide Licensee with a PoE, then IBM may accept as the PoE the original paid sales receipt or other sales record from the party (either IBM or its reseller) from whom Licensee obtained the
	○ I do not accept the terms in the license agreement
?	< <u>Back</u> <u>Next</u> > <u>Install</u> Cancel

**8.** In the "Shared Resources Directory" field, click **Browse** and select the directory for shared resources (Figure 6–10). Then click **Next**.

Figure 6–10 Shared Resource Directory

			IBI	M Installation	Manager				-
Install	Packages								
Select a l	ocation for the sha	red resources d	irectory.						
Instal	Licenses	Location	> Features	Summar	y II				
Wh	en you install pack	ages, files are s	stored in two lo	ocations:					
1) 2)	The shared resource The installation dire	es directory - re ectory - any res	esources that o ources that an	an be shared b e unique to the	y multiple packag package that you	es. are inst	talling.		
Imp bes pac	oortant: You can on t results select the kages.	y select the sha drive with the	ared resources most available	s directory the f e space becaus	irst time you insta e it must have ad	II a pac equate s	kage with th space for the	e IBM Installation shared resource	n Manager. For s of future
Shared <u>R</u> e	sources Directory:	/opt/IBM/IMSha	ared						Bro <u>w</u> se
Disk Spa	ce Information	•							
Volume	Available Space								
/	172.25 GB								
					< <u>B</u> ac	k	<u>N</u> ext >	install	Cancel

**9.** In the "Installation Directory" field, click **Browse** and select the WAS8 installation directory (Figure 6–11). Then click **Next**.

#### Figure 6–11 New Package Group

IBMI	nstallation Manager
nstall Packages	
A package group is a location that contains one or more pack group and will share a common user interface. Select an exis	kages. Some compatible packages can be installed into a common package sting package group, or create a new one.
Install Licenses Location Features	Summary
<u>U</u> se the existing package group	
Oreate a new package group	
Package Group Name	Installation Directory
IBM WebSphere Application Server Network Deploymer	nt VB.0 /opt/IBM/WebSphere/AppServer
Packade Group Name: IBM WebSphere Application Server Ne	
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer	Browse
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer	Browse Disk Space Information
Installation Directory: //opt/IBM/WebSphere/AppServer Details Shared Resources Directory: /opt/IBM/IMShared	Disk Space Information Volume Available Space
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Disk Space Information Volume Available Space / 172.25 GB
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Disk Space Information         Volume         Available Space         /         172.25 GB
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Disk Space Information           Volume         Available Space           /         172.25 GB
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Disk Space Information           Volume         Available Space           /         172.25 GB
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Disk Space Information           Volume         Available Space           /         172.25 GB
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Browse           Disk Space Information           Volume         Available Space           /         172.25 GB
Installation <u>D</u> irectory: /opt/IBM/WebSphere/AppServer  Details Shared Resources Directory: /opt/IBM/IMShared	Browse       Disk Space Information       Volume     Available Space       /     172.25 GB

**10.** Select the translation that you wish to install (Figure 6–12) and then click **Next**.

Figure 6–12	Translations
-------------	--------------

Install Packages       Select the translations to install.         Install Licenses       Location       Features       Summary         Translations         Image: Select the translation of the select the translation of the select the translation of the select the select the translation of the select the	table Packages     text the translations to install.     Install licenses location Features Summary     analations     English Brazilian Pgrtuguese Cgech Grean Oplish   Hungarian Italian Japanese Gorean Oplish   Romanian Rugsian Simplified Chinese Spanish Traditional Chinese			IBM Installation Manager			-
Install Licenses Location Peatures Summary	Install Licenses Location Peatures Summary	nstall Package	es				
rranslations	Incluing Eccluser Ecc	Install	renses Location Feat	tures Summary			
Translations <ul> <li></li></ul>	Inslations          Inslations       Brazilian Pgrtuguese       Cgech       French       German         Hungarian       Italian       Japanese       Korean       Poljsh         Romanian       Rugsian       Simplified Chinese       Spanish       Traditional Chinese	instan / Ek		and y Summary			
Image: Sending	EnglishBrazilian PgrugueseCzechFenchGermanHungarianItalianJapaneseGoreanPolishRomanianRugsianSimplified ChineseSpanishTraditional Chinese	Franslations					
Hungarian       Italian       Japanese       Korean       Polish         Romanian       Rugsian       Simplified Chinese       Spanish       Traditional Chinese	Hungarian       Italian       Japanese       Korean       Polish         Romanian       Rugsian       Simplified Chinese       Spanish       Traditional Chinese	🗹 English	Brazilian P <u>o</u> rtuguese	Czech	Erench	<u> </u>	
☐ Romanian ☐ Rugsian ☐ Simplified Chinese ☐ Spanish ☐ Traditional Chinese	Romanian Rugsian Simplified Chinese Spanish Traditional Oniese	🗌 <u>H</u> ungarian	🗌 I <u>t</u> alian	Japanese	<u>K</u> orean	Po <u>l</u> ish	
		🗌 Romanian	🔲 Ru <u>s</u> sian	Simplified Chinese	Spanish	Traditional <u>Chinese</u>	
	< <u>B</u> ack <u>N</u> ext > <u>Install</u> Cancel						

**11.** Select all applicable packages (Figure 6–13) and then click **Next**.

#### Figure 6–13 Application Packages

			IBMINSta	illation Manag	ger			-
nstall Packages								N
Select the features to ins	stall.							
	×			-				Concerned in the second
Install / Licenses	5 ) Locat	ion Fe	atures 2 :	summary				
Features								
🔻 🖃 🥤 IBM WebSphere	Application S	Server Network	k Deployment	8.0.0.0				
EJBDeploy to	ol for pre-EJB	3.0 modules						
🗢 🗹 🏠 Stand-alone t	thin clients, r	esource adapt	ers and embe	ddable contain	ers			
🗹 Stand-alor	ne thin clients	and resource	adapters					
🗹 Embeddab	le EJB contai	ner						
Sample applie	cations							
🗢 🖃 🚯 IBM Software	Developmen	t Kit						
IBM 32-bit	SDK for Java	, Version 6						
☑ IBM 64-bit	SDK for Java,	Version 6						
								1
] <u>S</u> how dependencies ⁄⁄8- Selected by Installati	on Manager k	because of dep	pendencies			Expand All	ollapse All <u>R</u> esto	re Default
] <u>S</u> how dependencies %- Selected by Installati <b>Details</b>	on Manager k	because of dep	pendencies			Expand All C	ollapse All <u>R</u> esto	re Default
☐ <u>S</u> how dependencies ∲- Selected by Installati Details IBM WebSphere Applic	on Manager b ation Serve	r Network De	pendencies	0.0.0		Expand All C	ollapse All <u>R</u> esto	re Default
Show dependencies - Sclected by Installati Details BM WebSphere Applicati application server for the Disk Space Information	on Manager b ation Serve fon Server Ne deployment n	r Network De twork Deployr of enterprise	pendencies <b>eployment 8.</b> ment is a prod web services :	<b>0.0.0</b> uction-ready Ja solutions for dy	iva Platform, Er inamic e-busine	Expand All C	ava EE) compliant	re Default
Show dependencies - Selected by Installati - Selected by Installati - Selected by Installati - Selected by Installati - Selected by Installation - Selected by Insta	on Manager b ation Serve on Server Ne deployment n Volume	r Network De twork Deployr of enterprise Required	pendencies aployment 8. ment is a prod web services ( Temporary	0.0.0 uction-ready Ja solutions for dy Total	ova Platform, Er Inamic e-busine Available	Expand All C	ava EE) compliant	re Detault
Show dependencies - Selected by Installati - Selected by Installati - Selected by Installati - Selected by Installati - Selected by Selected - Shared Resources Area	on Manager b cation Server ion Server Ne e denlovment n Volume /	r Network De twork Deployr of enterprise Required 0.0 KB	pendencies aployment 8. ment is a prod web services Temporary 936.08 MB	0.0.0 uction-ready Ja solutions for dy Total 936.08 MB	ova Platform, En inamic e-busine Available 172.25 GB	Expand All <u>C</u> terprise Edition ( ss. It is the next	ava EE) compliant	re Detault
Show dependencies Show dependencies States Show dependencies Show	on Manager b <b>ation Serve</b> denloyment <b>n</b> Volume / /	r Network De twork Deployr of enterprise Required 0.0 KB 1.07 GB	pendencies aployment 8. ment is a prod web services f Temporary 936.08 MB	0.0.0 uction-ready Ja solutions for dy Total 936.08 MB 1.07 GB	Available 172.25 GB 172.25 GB	Expand All <u>C</u> terprise Edition ( ss. It is the next	ava EE) compliant	re Detault
Show dependencies Show dependencies Selected by Installati Details IBM WebSphere Applicati application server for the Disk Space Information Shared Resources Area Installation Directory	on Manager b <b>ation Serve</b> denlovment <b>n</b> Volume / /	r Network De twork Deployr of enterprise Required 0.0 KB 1.07 GB	pendencies aployment 8. ment is a prod web services Temporary 936.08 MB	0.0.0 uction-ready Ja solutions for dy Total 936.08 MB 1.07 GB	ova Platform, En inamic e-busine Available 172.25 GB 172.25 GB	Expand All <u>C</u> terprise Edition ( ss. It is the next	ava EE) compliant	re Detault
Show dependencies Show dependencies Selected by Installati Details IBM WebSphere Applicati application server for the Disk Space Information Shared Resources Area Installation Directory	on Manager b ation Server denlovment n Volume / /	r Network De twork Deployr of enterprise Required 0.0 KB 1.07 GB	pendencies aployment 8. ment is a prod web services f Temporary 936.08 MB	0.0.0 uction-ready Ja solutions for dy Total 936.08 MB 1.07 GB	ava Platform, En mamic e-busine Available 172.25 GB 172.25 GB < <u>B</u> ack	Expand All <u>C</u> terprise Edition ( rss. It is the next <u>N</u> ext >	Iapse All <u>Resto</u> ava EE) compliant level in application	Cancel

12. Click Next, review your selections (Figure 6–14), and then click Install.

Figure 6–14 Selection Review

	IBN	M Installation Manager			-
Install Packages					
Review the summary info	rmation.				7
Install Licenses	Location Features	Summary			
Target Location		Commenty			
Package Group Name:	IBM WebSphere Application	Server Network Deployment V8.0			
Installation Directory:	/opt/IBM/WebSphere/AppSer	ver			
Shared Resources Direct	ory: /opt/IBM/IMShared				
Packages					
Packages					
<ul> <li>Charles (Construction)</li> <li>Charles (Constru</li></ul>	or pre-EJB 3.0 modules clients, resource adapters and e hin clients and resource adapters EJB container velopment Kit K for Java, Version 6	embeddable containers s			
Environment		Disk Space Informati	ion		
English		,		Total Av	ailable Space
		/			172.25 68
		Total Download Size:	936.08 MB		
		Total Installation Size:	1.99 GB		
Repository Informati	on				
Repository Informati	on		Usuka	1	Const.

IBM IM starts the installation process (Figure 6–15).



install Packages			
Review the summary info	mation.		2
Install Licenses	Location Features Summary		
Target Location			
Package Group Name:	IBM WebSphere Application Server Network Deployment V	8.0	
Installation Directory:	/opt/IBM/WebSphere/AppServer		
Shared Resources Directo	ry: /opt/IBM/IMShared		
Packages			
Packages			
🗢 🧊 IBM WebSphere App	lication Server Network Deployment 8.0.0.0		
EJBDeploy tool for	r pre-EJB 3.0 modules		
V 🔅 Etand along this	clients, recourse adapters and embeddable containers		
V 10 Stand-alone thin	clients, resource adapters and embeddable containers		
Stand-alone think	in clients and resource adapters		
<ul> <li>Stand-alone the china</li> <li>Stand-alone the china</li> <li>Stand-alone the china</li> <li>Stand-alone the china</li> </ul>	in clients and resource adapters B container		
✓ M Stand-alone thin Stand-alone th Embeddable E Software Device 1000000000000000000000000000000000000	in clients and resource adapters and embeddable containers B container elopment Kit		
<ul> <li>✓ Market Stand-alone thin</li> <li>Market Stand-alone the</li> <li>Market Stand-alone the</li> <li>Market Stand-alone the</li> <li>✓ Market Stand-alone the</li> <li>✓ Market Stand-alone the</li> </ul>	in clients, resource adapters and embeddable containers in clients and resource adapters B container elopment Kit for lava. Version 6		
<ul> <li>▼ Massing Stand-alone thin</li> <li>Mand-alone thin</li> <li>Massing Stand-alone thin</li> <li>Massing Stand-alone thin</li> <li>™ Embeddable E</li> <li>▼ Massing Stand-alone thin</li> <li>■ IBM Software Device</li> <li>Massing Stand-alone thin</li> </ul>	in clients and resource adapters and embeddable containers B container elopment Kit for Java, Version 6		
<ul> <li>V to Stand-alone thin</li> <li>the Stand-alone thin</li> <li>the Embeddable E</li> <li>✓ to IBM Software Dev</li> <li>the IBM 64-bit SDI</li> </ul>	in clients and resource adapters and embeddable containers B container elopment Kit for Java, Version 6		
<ul> <li>▼ tento-alone thin</li> <li>the Stand-alone thin</li> <li>the Embeddable E</li> <li>▼ the IBM Software Dev</li> <li>the IBM 64-bit SDI</li> </ul>	in clients and resource adapters and embeddable containers In clients and resource adapters B container elopment Kit : for Java, Version 6		
<ul> <li>▼ (13) Stantaatone thin</li> <li>(15) Standaatone thin</li> <li>(15) Embeddable E</li> <li>▼ (15) IBM Software Dev</li> <li>(15) IBM 64-bit SDI</li> </ul>	in clients and resource adapters and embeddable containers B container elopment Kit for Java, Version 6		
<ul> <li>♥ Bathalone the</li> <li>♥ Stand-alone the</li> <li>♥ Embeddable E</li> <li>♥ ● IBM Software Dev</li> <li>♥ IBM 64-bit SDI</li> </ul>	Disk Space II	formation	
<ul> <li>♥ Is Stand-alone the finith</li> <li>Is Stand-alone the</li> <li>Is Embeddable E</li> <li>♥ Is ISM Software Dev</li> <li>IBM 64-bit SDI</li> </ul>	Disk Space In	formation	Total Available Space
<ul> <li>♥ Is Stand-alone the finite</li> <li>Is Stand-alone the</li> <li>Is Embeddable E</li> <li>♥ Is ISN Software Dev</li> <li>IBM 64-bit SDI</li> </ul>	in clients and resource adapters and embeddable containers B container elopment Kit for Java, Version 6 Disk Space In	formation	Total Available Space 172.25 GE
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<ul> <li>♥ The Stand-alone the finite</li> <li>♥ Stand-alone the</li> <li>♥ Embeddable E</li> <li>♥ The Stand-alone the</li> <li>♥ The</li></ul>	In clients and resource adapters and embeddable containers B container elopment Kit for Java, Version 6 Disk Space In / Total Downloa Total Installati	Iformation d Size: 936.08 MB on Size: 1.99 GB	Total Available Space 172.25 GE
<ul> <li>♥ The stand-alone the finite of the stand-alone the stand-alone the stand-alone the stand-alone the standard standa</li></ul>	n	d Size: 936.08 MB on Size: 1.99 GB	Total Available Space 172.25 GB
<ul> <li>Case Stand-alone the finitian of the stand-alone the stand-alone the stand-alone the stand-alone the standard standa</li></ul>	In clients and resource adapters and embeddable containers B container elopment Kit for Java, Version 6 Disk Space In / Total Downloa Total Installati n .12.8 MB/s. 147 MB of 936 MB (16%) completed.	d Size: 936.08 MB on Size: 1.99 GB	Total Available Space 172.25 GE

**13.** When the installation process completes successfully, you are prompted to start the profile management tool to create profiles. Select **Profile Management Tool to create an application server profile** (Figure 6–16) and click **Finish**.





**14.** Enter the security username and password for the Deployment Manager console (Figure 6–17) and then click **Next**.

Figure 6–17 Administrati	ive Security
--------------------------	--------------

Profile M	1anagement Tool 8.0	×
Administrative Security		j g
Choose whether to enable administrative security. To er administrative tools. This administrative user is created finishes, you can add more users, groups, or external re	nable security, supply a user name and passw I in a repository within the application server positories.	vord for logging into . After profile creation
Enable administrative security		
User name:		
Password:		
Con <u>fi</u> rm password:		
See the information center for more information about a	dministrative security	
View the online information center	<i>-</i> ,	
	< Back Next > Can	cel Enish

**15.** Select **Cell (deployment manager and a federated application server)**. The Cell environment creates two profiles – one for the deployment manager and one for the application server (Figure 6–18). Click **Next**.

Figure 6–18 Environment Selection

🕀 Profile Management Tool 8.0	×
Environment Selection	18
	1
Select a specific type of environment to create.	
<u>Environments:</u>	
✓ WebSphere Application Server	
Cell (deployment manager and a federated application server)	
Management	
Application server	
Custom profile	
Secure proxy (configuration-only)	
Description	
A cell environment creates two profiles: a management profile with a deployment manager and an application serve profile. The application server is federated to the cell of the deployment manager.	r
profile. The appreador server is reachable to the certor the certor manager.	
< Back Next > Cancel Fini	sh

**16.** In the "Profile Creation Options" screen, select **Typical profile creation** (Figure 6–19) and then click **Next**.

Figure 6–19 Profile Creation Options

Profile Management Tool 8.0	×
Profile Creation Options	2
Choose the profile creation process that meets your needs. Pick the Typical option to allow the Profile Management Tool to assign a set of default configuration values to the profile. Pick the Advanced option to specify your own configuration values for the profile.	^
Typical profile creation	
Create a cell that uses default configuration settings for the deployment manager and the application server. The Profile Management Tool assigns unique names to the profiles, nodes, host, and cell. The tool also assigns unique port values. The administrative console and the default application will be installed. but the Sample applications will not be installed. You can optionally select whether to enable administrative security. The tool might create a system service to run the deployment manager depending on the operating system of your machine and the privileges assigned to your user account.	Ξ
<b>Note</b> : Default personal certificates expire in one year. Select Advanced profile creation to create a personal certificate with a different expiration.	
O <u>A</u> dvanced profile creation	
Create a cell using default configuration settings or specify your own values for settings such as the location of the profile and names of the profiles, nodes, host, and cell. You can assign your own port values. You can optionally choose whether to deploy the administrative console, the default application, and Sample applications, and create a Web server definition. You might have the option to run the deployment manager as a system service depending on the operating system of your machine and the privileges assigned to your user account.	
	*
< <u>B</u> ack	

**17.** Review the information in the "Profile Creation Summary" screen (Figure 6–20), and then click **Create**.

Figure 6–20 Profile Creation Summary

🕀 Profile Mana	gement Tool 8.0 ×
Profile Creation Summary	
Review the information in the summary for correctness. If the profiles. Click <b>Back</b> to change values on the previous panels	information is correct, click <b>Create</b> to start creating the new
Application server environment to create: Cell (deploymen Location: /opt/IBM/WebSphere/AppServer/profiles Disk space required: 230 MB	t manager and a federated application server)
Profile type: Cell deployment manager Profile name: Dmgr01 Make this profile the default: True	=
Cell name: localhostCell01 Node name: localhostCellManager01 Host name: localhost	
Deploy the administrative console (recommended): True Deploy the default application: True	
Enable administrative security (recommended): False	
Administrative console port: 9060 Administrative console secure port: 9043 Bootstrap port: 9809 SOAP connector port: 8879	V
	< Back Create Cancel Binish

**18.** When the profile is created successfully (Figure 6–21), click Finish.



Profile Management Tool 6.0 X	¢
Profile Creation Complete	-
đ	2
The Profile Management Tool created the profiles successfully.	-
The next step is to start the node agent for the federated application server and start the deployment manager.	
The node agent must be started to allow the deployment manager to communicate with the federated application server. Use the <b>startNode</b> command in the /opt/IBM/WebSphere/AppServer/profiles/AppSrv01/bin directory to start the node agent.	
Start the deployment manager so that other nodes can be federated into its cell. After the deployment manager is started, you can administer the nodes that belong to the cell.	
You can start and stop the deployment manager from the command line or the First steps console. The First steps console also has links to an installation verification test and other information and features that relate to the deployment manager.	
$\checkmark$ Launch the First steps console.	
To start the Profile Management Tool later, use the <b>PMT</b> command in the <i>app_server_root/</i> bin/ProfileManagement directory or the option in the First steps console.	
·	•
< <u>B</u> ack Next > Cancel <b>Finish</b>	

19. At this point, you have successfully installed WAS8 and created a Cell env profile. If you need to update WebSphere to the latest patch release, continue to Section 6.3, "Updating WebSphere Application Server." If updating is unnecessary, you can configure WebSphere for WebCenter Sites, before installing WebCenter Sites. For information about the WebCenter Sites installation process and WebLogic configuration procedures, see the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

### 6.3 Updating WebSphere Application Server

This section assumes you have successfully installed WAS8 and created a Cell env profile. This section provides instructions for updating WAS8.

#### To update WebSphere application server

When upgrading WebSphere, always upgrade the application server and JDK as recommended by IBM. Below are the steps for upgrading the application server. Repeat these steps for the JDK as well.

1. Change to the IBM IM directory and launch the installer (Figure 6–22). Once the installer is launched, click **Update**. Select the supported update and then click **Next**.

Figure 6–22 IBM IM Directory

Update Packages Select the updates to install. Any available fixes can be s Update	Recommended	page. Vendor IBM			E
Select the updates to install. Any available fixes can be s Update	Recommended	page. Vendor IBM			
Update ▼	Recommended	Vendor IB M			
Update ▼	Recommended	Vendor IB M			
Update ▼	Recommended	Vendor IBM			
<ul> <li>S. IBM WebSphere Application Server Network Depl</li> <li>IBM WebSphere Application Server Network D</li> <li>IBM WebSphere Application Server Network D</li> <li>IBM WebSphere Application Server Network D</li> </ul>	loyn epla I	IBM			
<ul> <li>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ <p< td=""><td>epla I</td><td>IBM</td><td></td><td></td><td></td></p<></li></ul>	epla I	IBM			
☑ 🖗 Version 8.0.0.1	1	IBM			
✓ Sho <u>w</u> recommended only				<u>S</u> elect Recon	nmended
		< <u>B</u> ack	<u>N</u> ext >	<u>U</u> pdate	Cancel

**2.** Select the fix pack to install (Figure 6–23) and then click **Next**.

#### Figure 6–23 Fix Pack Selection

				_
Update Packages				F
Select the fixes to install.				
<i>M</i> _ 23				*
Fixes		Recommended	Vendor	
▽ 🗹 🗊 IBM WebSphere Application Server Network Deployment 8.0.0.	1		IBM	
🗹 🎁 8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638				
□ Show recommended only			<u>S</u> elect Reco	ommended
☐ Sho <u>w</u> recommended only			<u>S</u> elect Reco	ommended
☐ Sho <u>w</u> recommended only <b>Details</b>			Select Reco	ommended
Sho <u>w</u> recommended only  Details 8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638			Select Reco	ommended
☐ Sho <u>w</u> recommended only <b>Details</b> 8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638 PM48033 iFix for WAS V8 Fixpack 1 <u>More info</u>			Select Reco	ommended
Show recommended only Details 8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638 PM48033 iFix for WAS V8 Fixpack 1 <u>More info</u> • Repository: https://www.ibm.com/software/repositorymanager/service/	/com.ibm.websphere.ND.	v80/8.0.0.0	<u>S</u> elect Reco	ommended
Show recommended only  Details 8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638 PM48033 iFix for WAS V8 Fixpack 1 More info  Repository: https://www.ibm.com/software/repositorymanager/service/ This fix resolves APARS:	/com.ibm.websphere.ND.	v80/8.0.0.0	<u>S</u> elect Reco	mmended
Show recommended only  Details  8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638  PM48033 iFix for WAS V8 Fixpack 1 More info  Repository: https://www.ibm.com/software/repositorymanager/service/  This fix resolves APARS:  PM48033	/com.ibm.websphere.ND.	v80/8.0.0.0	<u>S</u> elect Reco	mmended
Show recommended only  Details  8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638  PM48033 iFix for WAS V8 Fixpack 1 More info  Repository: https://www.ibm.com/software/repositorymanager/service/  This fix resolves APARS: - PM48033	/com.ibm.websphere.ND.	v80/8.0.0.0	<u>S</u> elect Reco	mmended
Show recommended only  Details 8.0.0.1-WS-WAS-IFPM48033 8.0.1.20110930_1638 PM48033 iFix for WAS V8 Fixpack 1 More info  Repository: https://www.ibm.com/software/repositorymanager/service/  This fix resolves APARS: - PM48033	/com.ibm.websphere.ND.	v80/8.0.0.0	<u>S</u> elect Reco	mmended

**3.** Read and accept the License agreement (Figure 6–24) and then click Next.
Figure 6–24 License Agreement

۵	IBM Installation Manager _ 🗆 🛪
	Lindate Packages
	Read the following license agreements carefully.
	Undate Packanes Undates Licenses Features Summany
	International Program Licenses Agreement
	BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS.
	- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM; AND
	- PROMPTLY RETURN THE UNUSED MEDIA. DOCUMENTATION. AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM.
	1. Definitions
	"Authorized Use" - the specified level at which Licensee is authorized to execute or run the Program. That level may be measured by number of users, millions of service units ("MSUs"). Processor Value Units ("PVUs"), or other level of use specified by IBM.
	"IBM" - International Business Machines Corporation or one of its subsidiaries.
	"License Information" ("LI") - a document that provides information and any additional terms specific to a Program. The Program's LI is available at www.ibm.com/software/sla. The LI can also be found in the Program's directory, by the use of a system command, or as a booklet included with the Program.
	"Program" - the following, including the original and all whole or partial copies: 1) machine-readable instructions and data, 2) components, files, and modules, 3) audio-visual content (such as images, text, recordings, or pictures), and 4) related licensed materials (such as keys and documentation).
	"Proof of Entitlement" ("PoE") - evidence of Licensee's Authorized Use. The PoE is also evidence of Licensee's eligibility for warranty, future update prices, if any, and potential special or promotional opportunities. If IBM does not provide Licensee with a PoE, then IBM may accept as the PoE the original paid sales receipt or other sales record from the party (either IBM or its reseller) from whom Licensee obtained the
	⊙ I accept the terms in the license agreement Print All
	○ I <u>d</u> o not accept the terms in the license agreement
0	< Back     Mext >     ∐pdate     Cancel
L	

**4.** Select the features to update (Figure 6–25) and then click **Next**.

#### Figure 6–25 Features for Update

			IBM Insta	llation Manag	jer			_
Indate Packades								
Select the features to ins	tall.							
		× .						
Update Packages	Updates	> Licenses	Featu	ires ) Sum	mary >			
Features								
🗢 🖃 🕅 IBM WebSphere Application Server Network Deployment 8.0.0.1								
<ul> <li>EJBDeploy too</li> </ul>	ol for pre-EJE	B 3.0 modules						
🗢 🗹 🟠 Stand-alone ti	hin clients,	resource adapt	ers and embe	ddable contain	ers			
Stand-alon	e thin client	ts and resource	e adapters					
✓ Embeddabl	le EJB conta	iner						
Sample applic	ations							
🗢 🖃 🚺 IBM Software	Developme	nt Kit						
IBM 32-bit	SDK for Java	a, Version 6						
IBM 64-bit	SDK for Java	a, Version 6						
<ul> <li>Generation of the second second</li></ul>	on Manager	because of dep or Notwork De	pendencies aployment 8.	.0.0.1		<u>Expan</u>		Restore
Disk Space Information	deplovmen	t of enterprise	web services	solutions for dy	namic e-busine	ess. It is the next	level in application	1
	Volume	Required	Temporary	Total	Available			
Shared Resources Area	1	77.8 KB	768.11 MB	768.19 MB	170.09 GB			
Installation Directory	1	936.75 MB		936.75 MB	170.09 GB			

5. Click **Update** to start the update process (Figure 6–26).

Figure 6–26 Update Process

	Manager
Jpdate Packages	
Review the summary information.	
Undate Packages Updates Licenses Features	Summary
Target Location	Sammary
Package Group Name: IBM WebSphere Application Server Netwo	rk Deployment V8.0
Installation Directory: /opt/IBM/WebSphere/AppServer	
Shared Resources Directory: /opt/IBM/IMShared	
Updates	
Features To Install	Features To Remove
<ul> <li></li></ul>	
Disk Space Information	Total Available Space
1	170.08 GB
/ Total Download Size: 768.19 MB Total Installation Size: 1 66 GB	170.08 GB
/ Total Download Size: 768.19 MB Total Installation Size: 1.66 GB	170.08 GB
/ Total Download Size: 768.19 MB Total Installation Size: 1.66 GB Repository Information	170.08 GB

6. When the update process completes successfully (Figure 6–27), click Finish.

#### Figure 6–27 Update Packages

4	IBM Installation Manager		_ = ×
Update Packag	les		
	The packages are updated. <u>View Log Fil</u>	e	
	All the following updates were installed:		
	Update	Installation Directory	
	<ul> <li>✓ % IBM WebSphere Application Server Network Deployment V8.0</li> <li>✓ IBM WebSphere Application Server Network Deployment 8.0.0.1     IBM WebSphere Application Server Net</li></ul>	/opt/IBM/WebSphere/AppSer	
3	Note: If the packages support rollback, the temporary directory contains m packages. You can delete the files on the <u>files for rollback</u> preference page	ollback files for installed e.	Finish
U			

# Part III

# **Installing a Web Server**

Part III describes how to install a supported web server. It contains the following chapters:

- Chapter 7, "Installing Oracle HTTP Server 11g"
- Chapter 8, "Installing Apache Web Server"
- Chapter 9, "Installing IBM HTTP Server 8.0 and 8.5"
- Chapter 10, "Installing IBM HTTP Server 7.0"
- Chapter 11, "Installing Microsoft Internet Information Services 8.0 on Windows 2012 Server"
- Chapter 12, "Installing Microsoft Internet Information Services 7.x on Windows 2008 Server"

7

# Installing Oracle HTTP Server 11g

This chapter provides instructions for installing Oracle HTTP Server and configuring Oracle HTTP Server to use with WebLogic.

This chapter contains the following section:

Section 7.1, "Oracle HTTP Server 11g Installation Steps"

# 7.1 Oracle HTTP Server 11g Installation Steps

Follow these steps to install the Oracle HTTP Server:

- 1. Oracle HTTP Server is available as a webserver component in Oracle Web Tier. Download Oracle Web Tier 11*g* from Oracle. The following steps assume you have downloaded the Oracle FMW Web Tier and installed it on a Linux system.
- **2.** Create a non root user and extract the installer contents from the downloaded Oracle Web Tier zip file.
- **3.** Navigate to the extracted directory and execute runInstaller. On the first installation it will ask you for the Inventory Directory (Figure 7–1). Select **Browse** and select the correct group name and click **OK**.

Figure 7–1	Specific Inventory Directory
------------	------------------------------

💁 🕐 Oracle Fusion	n Middleware 11g Web Tier Utilities Installation 💿 🛞
Specify Inventory direct	tory ORACLE 118
You are starting your first installation on th installer files. This is called the "inventory d up subdirectories for each product to conta Enter the full path of the inventory directory You can specify an Operating System group	is host. As part of this install, you need to specify a directory for irectory". Within the inventory directory, the installer automatically sets ain inventory data and will consume typically 150 Kilobytes per product. /. o that has write permissions to the above directory
Inventory <u>D</u> irectory:	/u01/software/Apps/oracle/oralnventory <u>B</u> rowse
Operating <u>S</u> ystem Group name:	oracle
<u>H</u> elp	<u>Q</u> k Cancel

**4.** In this chapter, we enable the **Continue installation with local inventory** option (Figure 7–2). This may not apply to your installation configuration.

Figure 7–2 Inventory Location Confirmation Dialog

🛃 🕑	Inventory Location Confirm	ation Dialog	$\odot$	
Certain actions need to be performed with root privileges before the install can continue. Please execute the script /u01/software/Apps/oracle/oralnventory/createCentralInventory.sh now from another window and then press "Ok" to continue the install. If you do not have the root privileges and wish to continue the install select the "Continue installation with local inventory" option				
Cont <u>inue</u> Installation	n with local inventory			
Help		<u>O</u> k Can	icel	

5. On the Welcome screen (Figure 7–3), click Next.

Figure 7–3 Welcome Screen

<b>○</b> · • 0ra	cle Fusion Middleware 11g Web Tier Utilities Installation - Step 1 of 14 💿 🛞
Welcome	EUSION MIDDLEWARE 118
🥥 Welcome	
Install Software Updates	Welcome to Oracle Fusion Middleware 11g Web Tier Utilities Installer version 11 1 1 6 0. This installer can be used to install a new Web Tier
Install and Configure	Oracle Home or to update an existing Web Tier Oracle Home.
Prerequisite Checks	For additional information and installation instructions, please refer to
Installation Location	the Oracle Fusion Middleware Installation Guide for Web Tier Utilities and the Oracle Fusion Middleware Patching Guide.
Security Updates	Click Help at any time for context-sensitive help.
Configure Components	
Specify WebLogic Doma	Click Next to begin the installation.
Specify Component Det	
Configure Ports	Copyright (c) 1999, 2011. Oracle and/or its affiliates. All rights reserved.
Installation Summary	
Installation Progress	
Configuration Progress	
O Installation Complete	
Help	< <u>Back</u> <u>Next</u> <u>Finish</u> Cancel
	Elapsed Time: 21m 47s

**6.** If you wish to install software updates enter your credentials (Figure 7–4) and click **Next**.



Oracle	Fusion Middleware 11g Web Tier Utilities Installation - Step 2 of 14 💿 🛞				
Install Software Updates					
Welcome	Skip Software Updates				
Wy Oracle Support Upd	Search My Oracle Support for Updates				
Install and Configure	Us <u>e</u> r Name:				
Prerequisite Checks	Password:				
Installation Location	Proxy Settings Test Connection				
Security Updates	Search Local Directory for Updates				
Configure Components	Search For Updates				
Specify WebLogic Doma					
Specify Component Deta					
Configure Ports					
Installation Summary					
Installation Progress	Allows user to search for and download software updates from My Oracle				
Configuration Progress	Connection" to test the credentials.				
O Installation Complete					
Help	< <u>B</u> ack <u>N</u> ext > <u>Einish</u> Cancel				
	Elapsed Time: 22m 2s				

**7.** On the Select Installation Type step (Figure 7–5), select the **Install and Configure** option and click **Next**.

Figure 7–5 Select Installation Type

🖸 🕑 Oracle	Fusion Middleware 11g Web Tier Utilities Installation - Step 3 of 14 🛛 😒 😣				
Select Installation Type					
🤍 <u>Welcome</u>					
Skip Software Updates	Install and Configure				
Install and Configure	Select this option if you are performing a new installation.				
Prerequisite Checks					
Installation Location					
Security Updates					
Configure Components	Install Software - Do Not Configure Select this option if you are updating an existing installation or				
Specify WebLogic Doma	performing a new installation to be configured later.				
Specify Component Deta					
<u>Configure Ports</u>					
Installation Summary					
<ul> <li>Installation Progress</li> </ul>	When installation is complete, you can modify the configured instance using				
<ul> <li>Configuration Progress</li> </ul>	Enterprise Manager of WebLogic server Administration Console.				
O Installation Complete -					
Help	< <u>Back</u> <u>N</u> ext> <u>Einish</u> Cancel				
Elapsed Time: 22m 22s					

**8.** On Prerequisite Checks steps (Figure 7–6), be sure you have all the required prerequisites and then click **Next**.





**9.** In this chapter, we will create a new Middleware home (Figure 7–7). This may not apply to your installation configuration.

Figure 7–7 Specify Installation L
-----------------------------------

🖸 💿 🛛 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 5 of 14 🛛 😒 🛞						
Specify Installation Location $\frac{CRACLE}{FUSION MIDDLEWARE}$						
🌳 <u>Welcome</u>						
Skip Software Updates						
http://www.configure						
Prerequisite Checks						
Installation Location						
Security Updates	Oracle <u>M</u> iddleware Home: re/Apps/oracle/Middleware <b>Browse</b>					
Configure Components	Oracle Home Directory: Oracle_WT1					
Specify WebLogic Doma						
Specify Component Deta						
Configure Ports						
Installation Summary						
Installation Progress	If configuring against a domain ensure the Application Server has already been installed					
Configuration Progress						
O Installation Complete 👻						
Help	< <u>Back</u> <u>N</u> ext> <u>Einish</u> Cancel					
	Elapsed Time: 1m 35s					

**10.** On the Specify Security updates step (Figure 7–8), enter your details to receive security updates.



Oracle	Fusion Middleware 11g Web Tier Utilities Installation - Step 6 of 14 📀 🛞
Specify Security	Updates
Welcome     Skip Software Updates     Install and Configure	Provide your email address to be informed of security issues, install the product and initiate configuration manager. <u>View details</u> .
Prerequisite Checks	E <u>m</u> ail: Easier for you if you use your My Oracle Support email address/username.
Security Updates	✓ I wish to receive security updates via My Oracle Support.           My Oracle Support Password:
<ul> <li>Specify WebLogic Doma</li> <li>Specify Component Det;</li> </ul>	
<u>Configure Ports</u> <u>Installation Summary</u>	
Configuration Progress	
	< <u>Back</u> <u>N</u> ext > <u>Einish</u> Cancel
	Elapsed Time: 1m 55s

**11.** For this release, we will not associate Oracle HTTP Server with a WebLogic domain. Associating web tier components involves creating a WebLogic domain with JRF. WebCenter Sites version 11.1.1.8.0 will not deploy correctly on a WebLogic domain with JRF and EM components.

On the Configure Components step (Figure 7–9), do not enable the **Associate Selected Components with WebLogic Domain** option. Disable this option if it is enabled. click **Next**.

*Figure 7–9 Configure Components* 

Oracle	Fusion Middleware 11g Web Tier Utilities Installation - Step 7 of 14 🛛 😒 😣
Configure Comp	onents
Welcome	
Skip Software Updates	✓ Oracle <u>H</u> TTP Server
http://www.install.and.Configure	✓ Oracle Web Cache
Prerequisite Checks	
Installation Location	Oracle Process Manager Notification (OPMN) is always configured
Security Updates	
Configure Components	
Specify Component Details	
Configure Ports	Associate Selected Components with WebLogic Domain
Installation Summary	
Installation Progress	
Configuration Progress	
O Installation Complete	
<u>H</u> elp	< <u>B</u> ack <u>N</u> ext > Einish Cancel
	Elapsed Time: 3m 19s

**12.** On the Specify Component Details step (Figure 7–10), specify your web tier component details and click **Next**.



Oracle Fi	usion Middleware 11g Web Tier Utilities	Installation - Step 8 of 14 💿 🛞
Specify Compone	nt Details	ORACLE' 118 FUSION MIDDLEWARE
<u>Welcome</u> <u>Skip Software Updates</u> <u>Install and Configure</u>	Instance Home Location:	/u01/software/Apps/orac Browse
Prerequisite Checks     Installation Location     Security Updates     Configure Components	- In <u>s</u> tance Name:	instance1
Specify Component De     Web Cache Administrate     Configure Ports	<u>O</u> HS Component Name: <u>W</u> eb Cache Component Name:	ohs1 webcache1
Installation Summary     Installation Progress     Configuration Progress		
i Installation Complete ▼ <ul> <li>Installation Complete</li> <li>Installation Line</li> </ul>	(	< <u>Back</u> Next > Einish Cancel
		Elapsed Time: 4m 19s

**13.** On the Web Cache Administrator Password step (Figure 7–11), enter the web cache password and click **Next**.

Figure 7–11 Web Cache Administrator Password

<b>○</b> •	racle F	usion Middleware 11g Web Tier Utilities Installation - Step 9 of 14 📀 🛞
Web Cache Ad Password	mir	nistrator ORACLE 118
<ul> <li>Welcome</li> <li>Skip Software Updates</li> <li>Install and Configure</li> <li>Prerequisite Checks</li> <li>Installation Location</li> <li>Security Updates</li> <li>Configure Component</li> <li>Specify Component De</li> <li>Web Cache Administr</li> <li>Configure Ports</li> <li>Installation Summary</li> <li>Installation Progress</li> <li>Configuration Progress</li> <li>Installation Complete</li> </ul>		Web Cache Administrator Password:     Confirm Password:
Help		< <u>Back</u> <u>N</u> ext> <u>Einish</u> Cancel
		Elapsed Time: 4m 39s

14. Depending on your configuration, select the Auto Port Configuration option or the Specify Ports Using Configuration File option (Figure 7–12). If you select the Specify Ports Using Configuration File option, provide the file name of the configuration file used to specify the ports. Ports can be modified later if needed. Select Next.

Figure 7–12 Configure Ports

Oracle Fu:	sion Middleware 11g Web Tier Utilities Installation - Step 10 of 14 💿 🛞
Configure Ports	CRACLE 118
🤍 <u>Welcome</u>	
Skip Software Updates	
http://www.configure	Auto Port Configuration
Prerequisite Checks	
Installation Location	Specify Ports using Configuration file
Security Updates	
Configure Components	<u>F</u> ile name: /home/oracle/staticports.ini B <u>r</u> owse
Specify Component Deta	View/Edit File
Web Cache Administrate	
Configure Ports	
Linstallation Summary	
O Installation Progress	
O Configuration Progress	
O Installation Complete	
Help	< <u>Back</u> <u>Next</u> <u>Finish</u> Cancel
	Elapsed Time: 4m 49s

**15.** On the Installation Summary step (Figure 7–13), verify the installation summary and click **Install**.

Figure 7–13 Installation Summary



**16.** On the Configuration Progress step (Figure 7–14), click **Next** when configuration is complete.





**17.** The Installation Progress step displays the installation progress (Figure 7–15). The installer will start the web tier components by default.

Figure	7–15	Installation	Progress
--------	------	--------------	----------

0	Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 12 of 14 💿 🛞
Instal	lation Progress
Specify     Specify     Web Cac     Configu     Onfigu     Installat     Installat	Progress Progress Component Det Copying File Install Log /u01/software/Apps/oracle/oralnventory/logs/install2012-11-26_0 re Ports ion Summary tion Progress
	Oracle Fusion Middleware Extreme Productivity
Help	<u>Einish</u> < <u>Back</u> <u>Next</u> > <u>Einish</u> <u>Cancel</u>

#### Starting or Stopping from the Command Line

To start or stop components from the command line:

Use cd to navigate to your instance directory. Under the /bin directory execute the
opmnctl command. To start or stop all components use:

```
./opmnctl stopall
./opmnctl startall
```

- For one component first execute ./opmnctl start and then use the commands listed below to start or stop specific components:
  - ./opmnctl startproc ias-component=<Oracle HTTP Server1>
  - ./opmnctl stopproc ias-component=<Oracle HTTP Server1>
  - ./opmnctl restartproc ias-component=<Oracle HTTP Server1>

# **Installing Apache Web Server**

This chapter describes how to install Apache HTTP Server systems. You can install Apache HTTP Server on the same machine that will host WebLogic and WebCenter Sites, or you can install and use it on a separate host.

This chapter contains the following sections:

- Section 8.1, "Is Apache Web Server Already Installed?"
- Section 8.2, "Installation Options"
- Section 8.3, "Documenting Your Apache Parameters"
- Section 8.4, "Verifying that Apache Runs Properly"
- Section 8.5, "Next Step"

### 8.1 Is Apache Web Server Already Installed?

1. Apache HTTP Server can come pre-installed on UNIX-based platforms such as Solaris and Linux. Determine whether Apache is installed on the environment(s) on which you plan to run it.

**Note:** If Apache Web Server is already installed, ensure the installed version matches the minimum version supported in the *Oracle WebCenter Sites Certification Matrix*. If Apache Web Server exists and is supported, then you can skip the installation of Apache Web Server. However, if the version installed on your environment is out of date, you are required to compile a new version.

 If Apache is already installed, continue with Section 8.3, "Documenting Your Apache Parameters." If Apache is not installed, continue to Section 8.2, "Installation Options."

### 8.2 Installation Options

To install Apache Web Server, you can do one of the following:

- Install it from your source medium.
- Download it from the Internet.
- Build it from source; that is, select the modules and compile the Apache executable yourself, as described in this section. For detailed instructions, refer to the

information that the Apache Foundation makes available at http://www.apache.org/.

#### To build Apache Web Server 2.2 from source

- **1.** Extract, compile, and install Apache 2.2.*x* as follows:
  - **a.** tar xvfjp httpd-2.2.x.tar.bz2

  - c. make
  - **d.** make install
- **2.** Set the variable \$APACHE2\_HOME to the directory in which Apache 2.2.*x* was installed.

#### To build Apache Web Server 2.4.x from source

- **1.** Download APR, APR-util (Apache Portable Runtime), PCRE (Perl-Compatible Regular Expressions Library), and Apache HTTP 2.4.*x*.
- 2. Unpack Apache HTTP 2.4.x. Under the srclib directory (located in the root folder), create an apr, apr-util, and pcre directory.
- **3.** Unpack APR, APR-util, and PCRE into their respective directories (created in step 2).
- **4.** Build Apache 2.4.*x*

```
./configure --enable-so --enable-mods-shared="proxy cache ssl all"
--prefix=<APACHE_HTTPD_HOME> --with-included-apr --with-pcre
```

# 8.3 Documenting Your Apache Parameters

We strongly recommend that you document the details of your Apache installation as mentioned in Table 8–1.

Parameter	Description / Your Value
Web Server Version	The version of Apache that the host is running. Note that you
(WebVersion)	must use a version that WebCenter Sites supports.
	Your Value:
Web Host Name	The name by which the Apache host machine is known on the
(WebHost)	network.
. ,	Your Value:
Web Host IP Address	The numeric Internet Protocol address assigned to the Apache
(WebIP)	host machine.
	Your Value:
Web Server Port	The port number assigned for Apache communications. By
(WebPort)	default, it has the value 80.
(	Your Value:
Apache Root Directory	The top-level directory in which Apache is installed. Immediate
(ApacheRoot)	subdirectories of ApacheRoot include bin and conf.
· • /	Your Value:

Table 8–1 Apache Parameters

# 8.4 Verifying that Apache Runs Properly

In this step, you will start Apache and verify that it is running properly. For verification instructions, see the Apache web site (http://www.apache.org).

# 8.5 Next Step

Configure Apache to run with WebLogic and WebCenter Sites. For instructions, see the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

# **Installing IBM HTTP Server 8.0 and 8.5**

This chapter contains the following sections:

- Section 9.1, "IBM HTTP Server 8.0 and 8.5 Installation Steps"
- Section 9.2, "WebServer Plugin Configuration"

**Note:** Keep in mind the following:

- This chapter is for WebSphere 8.0 and 8.5. If you are installing on WebSphere 7.0, see Chapter 10, "Installing IBM HTTP Server 7.0."
- In this chapter, IBM HTTP Server is referred to as "IHS." WebSphere Application Server is referred to as "WAS."

### 9.1 IBM HTTP Server 8.0 and 8.5 Installation Steps

To install the IBM HTTP Server, complete the following steps:

**Note:** There installation instructions assume you have installed IBM Installation Manager (IIM). If you do not have IIM installed, you must do so.

- Download the IBM HTTP Server installer files from the IBM website and extract the contents to a folder of your choice. Refer to the Oracle WebCenter Sites Certification Matrix for supported versions with WebCenter Sites here: http://www.oracle.com/technetwork/middleware/webcenter/sites/downloads/ index.html
- **2.** In the IIM, select **File**, then select **Preferences**, then select **Add Repository** to configure an IBM HTTP Server repository.

Test the connection to the new repository.

- **3.** Check for the latest available versions by clicking the **Check for other Versions**, **Fixes and Extensions** button.
- 4. From the list of available Install Package items, select IBM HTTP Server for WebSphere Application Server, Web Server Plug-ins for IBM WebSphere Application Server, and WebSphere Customization Toolbox. See Figure 9–1 for details:

#### Figure 9–1 Install Packages

	Manager <@wlcos8>		$\odot$ (
Install Packages			
Select packages to install:			7
Installation Packages	Status	Vendor	License Key Type
🝸 🗌 🧊 Application Client for IBM WebSphere Application Server			
🗌 😱 Version 8.0.0.0		IBM	
▼ ✔ 🕅 IBM HTTP Server for WebSphere Application Server			
✓ L <sub>10</sub> Version 8.0.0.5	Will be installed	IBM	
U Pluggable Application Client for IBM WebSphere Application S	Ser		
Version 8.0.0.5	Will be installed	IDM	
▼ ✔ 🗊 WebSphere Customization Toolbox	will be inscaled	1014	
Version 8.0.0.5	Will be installed	IBM	
Show <u>all versions</u>			rsions, Fixes, and Extensions
Show all versions Details		heck for Other Ve	ersions, Fixes, and Extensions
Show <u>all versions</u> Details IBM HTTP Server for WebSphere Application Server 8.0.0.5		Check for Other Ve	ersions, Fixes, and Extensions
Show <u>all versions</u> Details IBM HTTP Server for WebSphere Application Server 8.0.0.5 IBM HTTP Server for WebSphere Application Server provides advance WebSphere Application Server environment. IBM HTTP Server for Web	d web server capabilitie: Sphere Application Serv	Check for Other Ve	rsions, Fixes, and Extensions agement and security in a e HTTP Server. <u>More info</u>
Show <u>all versions</u> Details  IBM HTTP Server for WebSphere Application Server 8.0.0.5  IBM HTTP Server for WebSphere Application Server provides advancer WebSphere Application Server environment. IBM HTTP Server for Web  Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie: Sphere Application Serv ce/com ibm.websphere J	S with consistent mar ver is based on Apach PLG.v80/8.0.0.5	rsions, Fixes, and Extensions agement and security in a le HTTP Server. <u>More info</u>
Show <u>all versions</u> Details IBM HTTP Server for WebSphere Application Server 8.0.0.5 IBM HTTP Server for WebSphere Application Server provides advanced WebSphere Application Server environment. IBM HTTP Server for Web • Repository: https://www.ibm.com/software/repositorymanager/servi • Repository: https://www.ibm.com/software/repositorymanager/servi • Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie: Sphere Application Serv ce/com.ibm.websphere.i	Check for Other Ve s with consistent mar ver is based on Apach PLG.v80/8.0.0.5	ersions, Fixes, and Extensions agement and security in a le HTTP Server. <u>More info</u>
Show <u>all versions</u> Details  IBM HTTP Server for WebSphere Application Server 8.0.0.5  IBM HTTP Server for WebSphere Application Server provides advance WebSphere Application Server environment. IBM HTTP Server for Web • Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie: Sphere Application Serv ce/com.ibm.websphere.i	Check for Other Ve s with consistent mar ver is based on Apach PLG.v80/8.0.0.5	arsions, Fixes, and Extensions agement and security in a le HTTP Server. <u>More info</u>
Show <u>all versions</u> Details  IBM HTTP Server for WebSphere Application Server 8.0.0.5  IBM HTTP Server for WebSphere Application Server provides advanced WebSphere Application Server environment. IBM HTTP Server for Web  Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie: Sphere Application Serv ce/com.ibm.websphere.i	Check for Other Ve s with consistent mar /er is based on Apach PLG.v80/8.0 0.5	arsions, Fixes, and Extensions agement and security in a le HTTP Server. <u>More info</u>
Show <u>all versions</u> Details  IBM HTTP Server for WebSphere Application Server 8.0.0.5  IBM HTTP Server for WebSphere Application Server provides advance WebSphere Application Server environment. IBM HTTP Server for Web  Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie: Sphere Application Serv ce/com ibm.websphere :	Check for Other Ve s with consistent mar /er is based on Apach PLG.v80/8.0.0.5	agement and security in a the HTTP Server. <u>More info</u>
Show <u>all versions</u> Details  IBM HTTP Server for WebSphere Application Server 8.0.0.5  IBM HTTP Server for WebSphere Application Server provides advanced WebSphere Application Server environment. IBM HTTP Server for Web  Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie: Sphere Application Serv ce/com.ibm.websphere.i < Back	Check for Other Ve s with consistent mar ver is based on Apach PLG.v80/8.0.0.5	arsions, Fixes, and Extensions agement and security in a le HTTP Server. <u>More info</u> [Install]
Show <u>all versions</u> Details  IBM HTTP Server for WebSphere Application Server 8.0.0.5  IBM HTTP Server for WebSphere Application Server provides advance WebSphere Application Server environment. IBM HTTP Server for Web  Repository: https://www.ibm.com/software/repositorymanager/servi	d web server capabilitie Sphere Application Serv ce/com ibm.websphere < Back	Check for Other Ve s with consistent mar ver is based on Apach PLG.v80/8.0.0.5	arsions, Fixes, and Extensions agement and security in a le HTTP Server. <u>More info</u>

5. Select the appropriate version of the SDK (Figure 9–2), and click Next.

Install Packages		N
Select the fixes to install.		
<i>L</i> _ ¤		
Fixes	Recommended	Vendor
🕶 🚍 🗊 IBM HTTP Server for WebSphere Application Server 8.0.0.5		IBM
🗌 🎊 8.0.0.0-WS-WASJavaSDK-LinuxX32-IFPM75381 8.0.0.20121027_1101		
🗹 🗊 8.0.0.0-WS-WASJavaSDK-LinuxX64-IFPM75381 8.0.0.20121027_1101		
Web Server Plug-ins for IBM WebSphere Application Server 8.0.0.5		IBM
[] [] 8.0.0.0-WS-WASJavaSDK-LinuxX32-IFPM75381 8.0.0.20121027_1101     ]     ]		
Image: Second Science and S		
▼ ■ ① WebSphere Customization Toolbox 8.0.0.5		IBM
U U 8.0.0.0-WS-WASJavaSDK-LinuxX32-IFPM75381 8.0.0.20121027_1101		
[] [] 8.0.0.0-WS-WASJavaSDK-LINUXX64-IFPM75381 8.0.0.20121027_1101		
		Check for Other Fixe
Details		
IBM HTTP Server for WebSphere Application Server 8.0.0.5		
IBM HTTP Server for WebSphere Application Server provides advanced web server ca WebSphere Application Server environment. IBM HTTP Server for WebSphere Applicat	pabilities with consistent manager tion Server is based on Apache HT	nent and security in a TP Server. <u>More info</u>
Repository: https://www.ibm.com/software/repositorymanager/service/com.ibm.web	sphere.PLG.v80/8.0.0.5	
<	Back Next >	nstall Cance

Figure 9–2 Selecting SDK for Installation

6. Read and accept the license agreement (Figure 9–3). Click Next.



Read the following license agreements carefully.	
Install Licenses Location Features	Summary
<ul> <li>✓ IBM HTTP Server for WebSphere Application Server Software License Agreement</li> <li>✓ Web Server Plug-ins for IBM WebSphere Application Server Software License Agreement</li> <li>✓ WebSphere Customization Toolbox</li> <li>Software License Agreement</li> </ul>	International Program License Agreement Part 1 - General Terms By DOWNLOADING, INSTALLING, COPYING, ACCESSING, CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS, - DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM, AND - PROMPTLY RETURN THE UNUSED MEDIA, DOCUMENTATION, AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM. 1. Definitions "Authorized Use" - the specified level at which Licensee is authorized to execute or run the Program. That level may be measured by number of users, millions of service units ("MSUs"), Processor Value Units ("PVUs"), or other level of use specified by IBM. "IBM" - International Business Machines Corporation or one of its subsidiaries. "License Information" ("LI") - a document that provides information and
<ul> <li>I accept the terms in the license agreements</li> <li>I do not accept the terms in the license agreements</li> </ul>	Print All
	< Back Next > Install Cancel

**7.** If necessary, change the installation directory location (Figure 9–4). Click **Next**.

Figure 9–4 Installation Directory Location

)	IBM In	nstallation Manager <@wlcos8>	$\odot$
Install Packages The packages will be in	stalled into the indicated package grou	ips. Select the package group to change the installation directory.	⇒.
Install Licens	es Location Features	Summary	
Package Group Name		Installation Directory Arch	nitecture
🗢 🔩 IBM HTTP Server	V8.0	/u01/software/Apps/IBM/HTTPServer	
<ul> <li>♥ (i) IBM HTTP Serv</li> <li>(ii) 8.0.0.0-WS</li> <li>♥ % Web Server Plug-</li> <li>♥ (i) Web Server Pl</li> <li>(ii) 8.0.0.0-WS</li> </ul>	er for WebSphere Application Server 8 •WASJavaSDK-LinuxX64-IFPM75381 8.0 Ins for IBM WebSphere Application Sen ug-ins for IBM WebSphere Application S •WASJavaSDK-LinuxX64-IFPM75381 8.0	/u01/software/Apps/IBM/WebSphere8/Plugins	=
▼ 🖞 WebSphere Cust	omization Toolbox V8.0	/u01/software/Apps/IBM/WebSphereB/Toolbox	
	Istomization Loopox 8.0.0.5	81 	>
Package Group Name:	IBM HTTP Server V8.0		
Installation Directory:	/u01/software/Apps/IBM/HTTPServer		Browse
Detalls Shared Resources Dire	ectory: /u01/software/Apps/IBM/IMShared	Disk Space Information d Volume Available Space / 7.47 GB	
		< Back Next > Install	Cancel

**8.** Review the features to be installed (Figure 9–5), and click Next.

Figure 9–5 Reviewing Installation Packages

Install Packages       Select the features to install.         Install Licenses       Location       Features       Summary         Features       Install Licenses       Location       Features       Summary         Features       Image: Select the features to install.       Image: Select the features to install.       Features         Image: Select the features       Image: Select the features       Image: Select the features       Features         Image: Show dependencies       Expand All Collapse All Collapse All Restore Default         Show dependencies       Expand All Collapse All Restore Default         Subschere for WebSphere Application Server rowides advanced web server capabilities with consistent management and security in a WebSphere Application Server for WebSphere Application Server for WebSphere Application Server for WebSphere Application Server for WebSphere Application Server is based on Apache HTTP Server         Disk Space Information       Yolume       Required       Temporary       Total       Available         Shared Resources Area       /       0 0 KB       405 75 MB       74 GB	Install Packages       Select the features to install.         Install Licenses Location Pectures Summary         Features         Image: Select the features install.         Image: Select the features installation.	)			IBM Installat	ion Manager <@w	lcosB>				0
Select the features to install.       Install       Licenses       Location       Peatures       Summary         Features       Image: Summary       Image:	Select the features to install.       Install Licenses Location Peatures Summary         Features       Image: Summary         Features       Image: Summary         Image: Summary       Image: Summary         Image:	Install Packages									
Instal       Licenses       Location       Features         Image: Strength of the strengt	Instal       Licenses       Location       Features       Summary         Features       Features       Summary         Image: Control of the server for WebSphere Application Server 8.0.0.5       Image: Control of the server Plug-ins for IBM WebSphere Application Server 8.0.0.5         Image: Control of the server Plug-ins for IBM WebSphere Application Server 8.0.0.5       Expand All       Collapse All       Restore Default         Show dependencies       Expand All       Collapse All       Restore Default         Selected by Installation Manager because of dependencies       Expand All       Collapse All       Restore Default         Bith HTTP Server for WebSphere Application Server 8.0.0.5       Image: Collapse All       Restore Default       Restore Default         IBM HTTP Server for WebSphere Application Server provides advanced web server capabilities with consistent management and security in a WebSphere Application Server provides advanced web server capabilities with consistent management and security in a WebSphere Application Server for WebSphere Application Server for WebSphere Application Server and content IBM HTTP Server for WebSphere Application Server is based on Apache HTTP Server         Dist Space Information       Volume       Required       Temporary       Total       Available         Shared Resources Area       0.088       405 75 MB       7.47 GB       1.41 GB       1.41 GB       7.47 GB       Imstall Ation Directory       1.41 GB <t< td=""><td>Select the features to ins</td><td>stall.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Select the features to ins	stall.								
Teatures	Iteratives       Leaders       Juintisty         Features       Iteratives       Iteratives         Image: State of the MTTP Server for WebSphere Application Server 8.0.0.5       Image: State of the MTTP Server for WebSphere Application Server 8.0.0.5         Image: Show dependencies       Expand All Collapse All Restore Default         Image: Show dependencies       Expand All Collapse All Restore Default         Image: Selected by Installation Manager because of dependencies       Expand All Collapse All Restore Default         Image: Default       Image: Selected by Installation Manager because of dependencies         Details       Image: Selected by Installation Server 8.0.0.5         Image: Default Image: Default Image: Selected by Installation Manager because of dependencies       Expand All Collapse All Restore Default         Details       Image: Default Im	Install Licenses	Lacati	ion Ees	turas						
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**9.** Set the port in the **HTTP port** field (Figure 9–6). The default port is 80.

Figure 9–6 Setting the HTTP Port

۲	IBM Installation Manager <@wlcos8>	$\odot \odot \otimes$
	Install Packages	
	Fill in the configurations for the packages.	
	Install Licenses Location Features Summary	
	BM HTTP Server for WebSp Configuration for IBM HTTP Server for WebSphere Application Server 8.0.0.5     Web Server Configuration	
	Specify a port number for IBM HITTP Server to communicate. The default port is 80. If the default port is already in use, then change to another port that is available. Running IBM HITTP Server without root or Administrative privileges might restrict use of ports below 1024.	
	HTTP port: 80	
(	Seck     Next >     Install	Cancel

**10.** Summary information is displayed (Figure 9–7). Review the summary information, and click **Install**.

Figure 9–7 Final Installation Review

	IBM Inst	allation Manager <@wlcosB>	$\odot$
nstall Packages			
Review the summary informa	ition.		7
In shall Linemann	Laastian Fastures	Cumman.	
Install Licenses	Cocation Peatures	summary	
Target Location			
Shared Resources Directory	: /u01/software/Apps/IBM/IMShared		
Packages			
Packages		Installation Directory	
✓ SIBM HTTP Server V8.0		/u01/software/Apps/IBM/HTTPServer	
✓ IJ IBM HI   P Server to	r WebSphere Application Server 8.0		
b Architecture Sel	Javason-Linux.04-IFFM75561 6:0.0		
Veb Server Plug-ins f	or IBM WebSphere Application Serve	/u01/software/Anns/IBM/WebSphere8/Plugins	
✓ Î Web Server Plug-in	is for IBM WebSphere Application Se	faction and composition in the optication in aging	=
1 8.0.0.0-WS-WAS	avaSDK-LinuxX64-IFPM75381.8.0.0		
🕨 🔥 IBM Runtime Env	/ironment for Java		
🗢 🔩 WebSphere Customiz	ation Toolbox V8.0	/u01/software/Apps/IBM/WebSphere8/Toolbox	
🗢 🧊 WebSphere Custor	nization Toolbox 8.0.0.5		
🕅 8.0.0.0-WS-WAS	JavaSDK-LinuxX64-IFPM75381 8.0.(		
🚯 Web Server Plug	y-ins Configuration Tool		
🚯 Profile Managen	nent Tool (z/OS only)		<b>~</b>
Environment		Disk Space Information	
English			Total Available Space
		/	7.47 GB
		Total Download Size: 406.75 MB	
		Total Installation Size: 1.81 GB	
Repository Information	a		
		< Back Next >	Install Cancel

The packages will install. Once complete, move on to Section 9.2, "WebServer Plugin Configuration."

### 9.2 WebServer Plugin Configuration

Once the IIM has installed the IHS, you can then configure the WebServer plugin.

To configure the WebServer plugin, complete the following steps:

- 1. Run the WebSphere Customization Toolbox.
- 2. In the List of provided tools listbox (Figure 9–8), select Web Server Plug-ins Configuration Tool and click Launch Selected Tool.

	Figure 9–8	Launching	Web Serve	r Configuration	ΤοοΙ
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<b>()</b>	)	WebSphere Customization Toolbox 8.0 <@wlcosB>	$\odot$ $\land$ $\times$
File	Window	Help	
- F\$		ome	
	Weice		
⊕ v	/elcome ∑	2	
We	lcome to	o the WebSphere Customization Toolbox	
Sele a to sele	ect a tool i ol in the li ect a tool i	in the following list to display the welcome information for that tool. To launch a too ist, and click <i>Launch Selected Tool</i> . Alternatively, select <i>Window &gt; Open Perspectiv</i> in the list.	ol, select ve and
List	of provide	ed tools:	
Pro	file Manaq	gement Tool (z/OS only)	
z/0	S Migratio	on Management Tool	
We	b Server F	Plug-ins Configuration Tool	
Lau	unch Seleo	cted Tool	
We	Icome info	ormation for selected tool	
Us W Co Se in	se the Wel ebSphere mmunicat erver Plug- formation	b Server Plug-ins Configuration Tool to configure the Web server plug-ins for IBM Application Server Version 8.0 so that your Web server and application server can te with each other. Learn more about configuring the Web server plug-ins from the I-ins Configuration Roadmap for WebSphere Application Server Version 8.0 or the or center.	Web nline
	Web Ser	rver Plug-ins Configuration Tool	

This tool will help you configure the Web server plugins.

**3.** In the Add Web Server Plug-In screen (Figure 9–9), click **Browse**. Select the same plugin location selected in step 7 of Section 9.1, "IBM HTTP Server 8.0 and 8.5 Installation Steps."

#### Figure 9–9 Setting the Plug-in Location

<b>( )</b>	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot$ $\otimes$ $\otimes$
Add Web	Server Plug-in Location	
Add a pre	viously installed Web server plug-in location to your working set.	
Web serve	er plug-in location	
<u>N</u> ame:	WebServerPlugins108	)
Location:	/u01/software/Apps/IBM/WebSphere8/Plugins	B <u>r</u> owse
	Cancel	<u>F</u> inish

Click Finish.

**4.** On the Web Server Selection screen, select **IBM HTTP Server V8** (Figure 9–10). Click **Next**.
Figure 9–10 Web Server Selection

<b>⊕</b> ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot \odot \otimes$
Web Server Selection		i a
Select the Web server to configure	. Verify that the Web server you select to configure has been installed.	
● IBM <u>H</u> TTP Server V8		
O Apache Web Server V2.2		
○ <u>L</u> otus Domino Web Server V8		
○ <u>S</u> un Java System Web Server Ve	5.1 or Sun Java System Web Server V7.0	
	< Back Next > Cancel	<u>F</u> inish

**5.** Select the architecture (Figure 9–11). Click **Next**.

#### Figure 9–11 Selecting Architecture

<b>⊕</b> ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot \odot \otimes$
Web Server Architecture Selection	on	
Select the architecture of your installe	d target web server.	
<ul> <li><u>6</u>4 bit</li> <li><u>3</u>2 bit</li> </ul>		
	< Back Next > Cancel	nish

6. In the Web Server Configuration File Selection screen (Figure 9–12), click Browse. Browse to the httpd.conf file of the IBM HTTP Server that you installed. The configuration tool will make changes to this file and include the plugins needed by WebSphere Application Server.

Figure 9–12 Selecting the httpd.conf File

(⊕ ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot \odot \otimes$
Web Server Configuration File Se	lection	<b>A</b>
Select the Web server configuration fi	le and identify the Web server port to configure the Web server defin	ition.
Select the existing IBM HTTP Server ht	tpd.conf file:	
/u01/software/Apps/IBM/HTTPServer/c	onf/httpd.conf	B <u>r</u> owse
Specify the Web server port: 80		
	< <u>B</u> ack <u>N</u> ext > Cancel	Einish

**7.** Set up the IBM HTTP Server Administration Server by completing the fields (Figure 9–13). Click **Next**.

#### Figure 9–13 HTTP Server Administration Server Setup

<b>⊕</b> ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot \odot \otimes$
Setup IBM HTTP Server Administra	tion Server	a la
Optionally configure an administrative so WebSphere Application Server administr communication between them.	erver to administer the Web server. You can manage the Web serv ative console by using the IBM HTTP Server administrative server n Server	ver from a to control the
Specify a port number for IBM HTTP S default port is already in use, then cl server without root or Administrative <u>H</u> TTP Administration Port: 8008 Optionally create a user ID and pass WebSphere Application Server admin admin.passwd file. You can create ad	erver administation server to communicate. The default port is 80 nange to another port that is available. Running IBM HTTP Server a privileges might restrict use of ports below 1024. word to authenticate to the IBM HTTP Server Administation Server istrative console. The user ID and password is encrypted and sto Iditional user IDs after the configuration by using the htpasswd ut	008. If the administation from the red in the conf/ illity.
✓ Create a user ID for IBM HTTP Ser	ver Administration Server authentication	
<u>U</u> ser ID:	admin	
Password:	•••••	
Confirm password:	·····	
	< <u>B</u> ack <u>N</u> ext > Cancel	Einish

**8.** Enter the **User ID** and **Group** to access the administration server (Figure 9–14). Click **Next**.

Figure 9–14	Enterina	User ID	and Grou	n for A	ccess
1 iguie 3–14	Lintering	030110	and Grou	ה וטו ק	00033

🚯 🖸	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot$ $\odot$ $\otimes$
Setup IBM HTTP Server Administra	tion Server	
😣 Specify a user ID and group for IBM HT	TP Server administration.	
Specify a system user ID and group. The Administration Server and web server plu choose to create a new system user and	e user ID is granted write access to IBM HTTP Server, IBM HTTP Se ug-in configuration files. If the user ID or group does not exist on d group with the credentials.	rver the system, then
<u>U</u> ser ID:		
<u>G</u> roup:		
☑ <u>C</u> reate a new unique system user ID	and group using the credentials.	
	< <u>B</u> ack <u>N</u> ext > Cancel	Einish

**9.** Specify a unique web server definition name (Figure 9–15). Click **Next**.

#### Figure 9–15 Entering a Unique Web Server Definition Name

(⊕ ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot$ $\odot$ $\otimes$
Web Server Definition Name		
Use a Web server definition to mana the wsadmin tool. The definition nar administrative console.	age a Web server through the WebSphere Application Server a ne must be unique because this name is used to identify this W	dministrative console or leb server in the
<u>Specify a unique Web server definiti</u>	on name:	
webserver108		
The Web server definition name mus / \ * , : ; = + ?   < > & % ' " [ ] > # Note: a period(.) is not valid if it is th	st not be empty and it must not contain the following special ch \$ \$ ^ { } he first character.	aracters or space:
	< <u>B</u> ack <u>N</u> ext > Cance	<u>Einish</u>

**10.** Based on your configuration, select either **Remote** or **Local** installation location (Figure 9–16). For a Remote installation location, enter a host name or IP address. For a Local installation location, click **Browse** and select the installation location.

Figure 9–16 Configuring the Location

<b>⊕</b> ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot \odot \otimes$
Configuration Scenario Selection	1	i a
Configure the Web server plug-ins to server are not on the same computer server are on the same computer, ch you create in this wizard is defined au	the computer where the Web server exists. When the Web server r, choose the remote configuration scenario. When both Web server oose the local configuration scenario. In the local scenario, the We utomatically in the application server.	and application er and application b server definition
Configuration scenario		
● ( <u>R</u> emote) Host name or IP addres	ss of the application server	
(Local) Installation location of We	ebSphere Application Server	
		Br <u>o</u> wse
For the remote configuration scenario address formats:	o, the host name must be accessible on the network through one o	f the following
Fully qualified domain name system ([ The default short DNS host name Numeric IP address	DNS) host name	
	< <u>B</u> ack <u>N</u> ext > Cancel	Einish

Click Next.

**11.** Review the Configuration Summary (Figure 9–17). Click **Configure**.

Figure 9–17 Plug-In Configuration Summary

• •	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot \odot \otimes$
Plug-in Configuration Summary		i a
Manual configuration steps are requ Web Server Plug-in Configuration Ro test your configuration.	uired before starting the Web server. Follow the configuration procedure badmap. Afterwards, you may start up your Web server and application s	in the erver to
Web server to configure: IBM HTTP Server V8		≡
Web server definition: webserver108		
Plug-in configuration file: /u01/software/Apps/IBM/WebSphe	ere8/Plugins/config/webserver108/plugin-cfg.xml	
		~
(<	III	$\geq$
	< <u>B</u> ack Configure > Cancel	Einish

**12.** If you selected to install a local configuration (Figure 9–18), click **Finish**.

#### Figure 9–18 Configuration Result

<b>⊕</b> ⊙	Web Server Plug-ins Configuration Tool 8.0 <@wlcosB>	$\odot$ $\odot$ $\otimes$
Plug-in Configuration Result		a la
Success: The configuration has been comple	ted successfully.	
Manual configuration steps are requir Web Server Plug-in Configuration Roa test your configuration.	ed before starting the Web server. Follow the configuration proced dmap. Afterwards, you may start up your Web server and application	ure in the on server to
☑ Launch the plug-in configuration r	oadmap	
Manual configuration script: /u01/software/Apps/IBM/WebSphere	e8/Plugins/bin/configurewebserver108.sh	
Web server type configured: IBM HTTP Server V8		
Web server definition:		
webserver108		~
(	III	$\geq$
	< <u>B</u> ack Configure > Cancel	<u>F</u> inish

- **13.** If you selected to install a remote configuration, additional steps are needed to complete the configuration. These steps are listed in the configuration roadmap:
  - a. Select the Launch the plug-in configuration roadmap checkbox (Figure 9–18).
  - b. Click Finish.

# **Installing IBM HTTP Server 7.0**

This chapter contains the following sections:

- Section 10.1, "IBM HTTP Server 7.0 Installation Steps"
- Section 10.2, "Installing IHS 7.0 with WebSphere Application Server on the Local Server"

**Note:** Keep in mind the following:

- This chapter is for WebSphere 7.0. If you are installing on WebSphere 8.0 or 8.5, see Chapter 9, "Installing IBM HTTP Server 8.0 and 8.5."
- In this chapter, IBM HTTP Server is referred to as "IHS." WebSphere Application Server is referred to as "WAS."

## 10.1 IBM HTTP Server 7.0 Installation Steps

- 1. Download the correct file, WebSphere Plugins, for your IBM operating system.
- 2. Extract the file to a temporary directory.
  - On UNIX: tar -xvf <file name>

For example:

gzip -d C87XTML\_Plugins.tar.gz

tar -xvf C87XTML\_Plugins.tar

On Windows: unzip <file name>

For example:

unzip C87XTML\_Plugins.zip

**3.** Change the directory to IHS/.

For example:

cd IHS/

- **4.** Run the installer:
  - For UNIX: ./install
  - For Windows: install.exe
- 5. The "GUI" installer appears (Figure 10–1). Click Next.

Figure 10–1 IBM HTTP Server - Welcome Screen

🖞 IBM HTTP Server 7.0 _ 🗆			
	Welcome to IBM HTTP Server 7.0		
WebSphere, software	This wizard installs IBM HTTP Server 7.0 on your computer. See the I <u>BM HTTP Server 7.0 Installation Guide</u> to learn more about this installation.		
	Click <b>Next</b> to continue.		
InstallShield			
	< <u>B</u> ack <u>N</u> ext > <u>C</u> and	el	

**6.** Click the radio button **I accept the IBM and non-IBM terms**, to accept the license agreement (Figure 10–2) and click **Next**.

Figure 10–2	Software	License	Agreement
-------------	----------	---------	-----------

2	IBM HTTP Server 7.0 _ 🗆 🗙
<del>14</del> -	Software License Agreement
	Please read the following license agreement carefully.
IV-	International Program License Agreement
WebSphere software	Part 1 – General Terms
Cree.	BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE
Part	PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE
	OR OTHER LEGAL ENTITY. YOU REPRESENT AND WARRANT THAT YOU HAVE
	FULL AUTHORITY TO BIND THAT PERSON, COMPANY, OR LEGAL ENTITY TO
	THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,
	- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE PROGRAM; AND
	Read non-IBM terms
	I accept both the IBM and the non-IBM terms
and the state of t	I do not accept the terms in the license agreement
تداخذ قنائهم زا دينتا	
	Print
InstallShield	
	< Back Next > Cancel

7. In the "System prerequisites check" screen (Figure 10–3) click Next.

Figure 10–3 System Prerequisites Check

۲	IBM HTTP Server 7.0 _ 🗆	×
WebSphere, software	System Prerequisites Check         Warning: A supported operating system was not detected.         Support for your operating system might have been added after the release of the product. See the WebSphere Application Server detailed system requirements Web pages for more information about supported operating systems. You can continue with the installation, but the installation or product operation might not succeed without applying maintenance. Go to the product support Web pages to obtain the latest maintenance packages to apply after installation.         Click Cancel to stop the installation and install a supported operating system Click Next to continue the installation.	
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	

**8.** In the "Enter the Install location" screen (Figure 10–4), select a location to install IHS 6.1 by using the **Browse** button, then click **Next**.

<u></u>	IBM HTTP Server 7.0 _	٢
WebSphere, software	Enter the installation location  Product installation location: /opt/IBM/HTTPServer Browse	
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel	]

Figure 10–4 Installation Location

**9.** In the "Port Values Assignment" screen (Figure 10–5), enter the ports on which you wish to run IHS. Then click **Next**.

Figure 10–5 Port Values Assignment

<u>ل</u>	IBM HTTP Se	rver 7.0	_ = ×
WebSphere. software	Port Values Assignment IBM HTTP Server communi- ports are already in use by change the port numbers f	cates using the port numbers listed / IBM HTTP Server or another applic rom their default values.	below. If these ation, then
- Lurr	HTTP <u>P</u> ort:	80	
Stor.	HTTP <u>A</u> dministration Port:	8008	
InstallShield		< Back Next >	Cancel
			cancer

**Note:** We assume throughout this chapter that you are using the default ports: 80 and 8008. If you have changed them, replace the values given with the ports you have selected.

- **10.** In the "HTTP Administration Server Authentication" (Figure 10–6) screen:
  - a. Select Create a user ID for IBM administration server authentication.
  - **b.** Fill in the fields:
    - User ID: admin
    - Password: <enter and confirm>
  - c. Click Next.

2	IBM HTTP Server 7.0 _ D
WebSphere         software           WebSphere         software	HTTP Administration Server Authentication Create a user ID and password to authenticate to the IBM HTTP Server administration server using the WebSphere Application Server administrative console. The newly-created user ID and password is encrypted and stored in the conf/admin.passwd file. You can create additional user IDs after the installation by using the htpasswd utility.  ✓ Crgate a user ID for IBM HTTP Server administration server authentication. User ID: admin Password: Confirm Password: Confirm Password:
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 10–6 HTTP Administration Server Authentication

- **11.** In the "Setup HTTP Administration Server" screen:
  - a. Select:
    - Set up IBM HTTP administration server to administer IBM HTTP Server
    - Create a unique ID and Group for the IBM HTTP Server administration
  - **b.** Fill in the fields. For example:
    - User ID: ihs7
    - Group: ihs7

**Note:** Record the unique name for the User ID and Group. They are needed to integrate with WAS. The User ID and Group can be anything you choose; ihs61 is only an example.

c. Click Next (Figure 10–7).

Figure 10–7 Setup of IBM HTTP Server Administration Server

1	IBM HTTP Server 7.0 _ 🗆 X
WebSphere. software	Perform steps to administer IBM HTTP Server using the IBM HTTP Server administration server on Linux and UNIX operating systems. When selected, the installation grants a user ID write access to the necessary IBM HTTP Server and plug-in configuration files. Optionally, you can complete this step after installation by running the setupadm script.
A	✓ Setup IBM HTTP Server administration server to administer IBM HTTP Server.
	✓ Create a unique user ID and group for IBM HTTP Server administration files.
	User ID:
	be a root user.
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

- 12. In the "IBM HTTP Server Plugin for IBM WebSphere Application Server" screen:
  - a. Select Install the IBM HTTP Server Plug-in for IBM WebSphere Application Server.
  - **b.** Fill in the fields:
    - Web server definition: webserver1
    - Host name: Enter the hostname on which the application server is found.
  - **c.** Click Next (Figure 10–8).

2	IBM HTTP Server 7.0 _ 🗆 🗙
WebSphere, software	IBM HTTP Server Plug-in for IBM WebSphere Application Server Silently install the plug-in using the remote installation scenario. The host name and web server definition are used when creating the default plug-in configuration file. This file is used to route requests to the Application Server. If there are multiple Application Servers, then select one of the servers and specify the machine's host name.
	Install the IBM HTTP Server Plug-in for IBM WebSphere Application Server Web server definition: webserver1 Host name or IP address for the Application Server: localhost
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

Figure 10–8 IBM HTTP Server Plug - In For IBM WebSphere Application Server

**13.** In the "Installation summary" screen (Figure 10–9), click Next.

#### Figure 10–9 Installation Summary

2	IBM HTTP Server 7.0 _ 🗆 🗙
#	Installation summary
WebSphere, software	Review the summary for correctness. Click <b>Back</b> to change values on previous panels. Click <b>Next</b> to begin the installation.
NHS.	IBM HTTP Server will be installed to the following location:
	/opt/IBM/HTTPServer
	with the following configuration:
	HTTP Port: 80 HTTP Administration Port: 8008 User ID for HTTP Administration Server Authentication:
	Total size:
	158 MB
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel

- **14.** Allow the installer to finish.
- **15.** When the installation is complete (Figure 10–10), click Finish.

2	IBM HTTP Server 7.0 _ 🗆 🗙
	Success: The following product was successfully installed: • IBM HTTP Server - /opt/IBM/HTTPServer
WebSphere, software	For information on configuring and using the IBM HTTP Server, refer to the on-line IBM HTTP Server Information Center.
	Click <b>Finish</b> to exit.
InstallShield	
	< <u>B</u> ack <u>N</u> ext > <u>Finish</u>

**Note:** Now, you will need to use the update installer to patch IBM HTTP Server to the same version as WebSphere. Information on using the update installer can be found on the IBM site when you download updates. You will need to update both the IHS server and the IHS plugins separately. To do so, you will need the WebSphere and the plugin fixpacks.

# 10.2 Installing IHS 7.0 with WebSphere Application Server on the Local Server

**Note:** It is preferable to perform this installation after WebCenter Sites is already installed. Then the plugin, cfg.xml, is automatically updated to include WebCenter Sites.

**1.** Browse to the WAS management console, for example:

http://<DM\_host>:<DM\_console\_port>/ibm/console

where <DM\_host> is the host name or IP address of the Deployment Manager host and <DM\_console\_port> is the port number on which the Deployment Manager console is listening for connections.

**2.** Log in to the Admin Site.

**3.** Select: **Servers > Web Servers** (Figure 10–11).



WebSphere. software					Welcom
View:     All tasks       • Welcome       ● Guided Activities	Cell=localhostCell01, Profile=Dmgr01 Web servers Web servers				<u>a</u> –
Servers     Server Types     Server Types     WebSphere application servers     WebSphere proxy servers     Generic servers	Use this page to view a list of t # Preferences Generate Plug-in Propagat	the installed web servers. Re Plug-in   New   Delete   Ter	nplates Start Stop	) Terminate	
<ul> <li>Version 5: UMS servers</li> <li>WebSphere MQ servers</li> <li>Web servers</li> <li>Clasters</li> <li>DataPewer</li> </ul>	Select Name 🗢 None Total O	Web server Type ≎_	Node \$_	Host Name 🔶	Version ≎_ Status 👲
+ Core Groups					

- 4. Click New.
- **5.** To link IHS to WAS:
  - **a.** Fill in the fields:
    - Select node: Select the node that you want to federate with (normally this is the node of the application server or cluster on which WebCenter Sites is installed).
    - **Server name**: Enter the unique name for this web server, which was entered when you installed IHS.
    - **Type**: Keep the type as **IBM HTTP Server**.
  - **b.** Click Next (Figure 10–12).

Figure 10–12 Web Server Mode and Type

View: All tasks       Cell=localhostCell01, Profile=Dmgr01         • Welcome       Create new Web server definition         • Servers       Use this page to create a new web server.         • New server       Server Types         • WebSphere proxy servers       Select a node for the Web server type         • WebSphere proxy servers       Select a node that corresponds to the Web server you want to add.         • WebSphere proxy servers       Select node	WebSphere, software		Welcon
Servers     Use this page to create a new web server.     Use this page to create a new web server.     Use this page to create a new web server.     Select a node for the Web server and select the Web server type     Select a node that corresponds to the Web server you want to add.     Select node     Select node	View:     All tasks       • Weicome       (±)       Guided Activities	Cell=localhostCell01, Profile=Dmgr01 Create new Web server definition	Ξ
<ul> <li>New server</li> <li>New server</li> <li>Server Types</li> <li>Select a node for the Web server and select the Web server type</li> <li>WebSphere application servers</li> <li>Generic servers</li> <li>Generic servers</li> <li>Select anode for the Web server type</li> <li>Select a node that corresponds to the Web server you want to add.</li> <li>Select node</li> </ul>	Servers	Use this page to create a new web server.	
• Velsion J Mis Servers     Step 2: Select a       • Web servers     Web server       • Web servers     Web server       • Clasters     Step 3: Enter the properties for the new Web server       • Cree Groups     Step 3: Enter the properties for the new Web server	<ul> <li>New server</li> <li>Server Types</li> <li>WebSphere application servers</li> <li>Generic servers</li> <li>Generic servers</li> <li>WebSphere MQ servers</li> <li>WebSphere MQ servers</li> <li>Meb servers</li> <li>Glasters</li> <li>DataPower</li> <li>Core Groups</li> </ul>	<ul> <li>→ Step 1: Select a node for the Web server and select the Web server type</li> <li>Select a node for the Web server and select the Web server type</li> <li>Select a node that corresponds to the Web server you want to add.</li> <li>Select a node that corresponds to the Web server you want to add.</li> <li>Select a node that corresponds to the Web server you want to add.</li> <li>Select a node that corresponds to the Web server you want to add.</li> <li>Select a node that corresponds to the Web server you want to add.</li> <li>Select node</li> <li>webservers224 ▼</li> <li>Server name</li> <li>ihs8_224</li> <li>Ital the type</li> </ul>	
Applicatione     Step 4: Confirm     new Web server      Services     Next Cancel	<ul> <li> Applications</li> <li>(± Jobs</li> <li>(± Services</li> <li>(± Resources)</li> </ul>	Step 4: Confirm new Web server	

6. In the "Select a Web server template" screen (Figure 10–13) click Next.

Figure 10–13 Web Server Template

WebSphere. software							Weld
View: All tasks   Velcome	Cell=ia	ocalhostCell01, Profile=Dmgr01 te new Web server definition					
	Us	e this page to create a new web	server.				
<ul> <li>Nav carver</li> <li>Server Types</li> <li>WebSphere application servers</li> <li>Generic servers</li> <li>Certic servers</li> <li>Version SUMS servers</li> <li>WebSphere MQ servers</li> <li>Web servers</li> <li>Clasters</li> <li>DatePower</li> <li>Core Groups</li> </ul>	÷	Step 1: Select a node for the Web server and select the Web server type Step 2: Select a Web server template Step 3: Enter the properties for the new Web server	Select a Select 1 Select Select	Web server template the template that corre Template Name IHS	e esponds to the ser Type System	ver that you want to create. Description The IHS Web Server Template	
		Step 4: Confirm new Web server					
④ Services ④ Resources	F	Previous Next Cancel					

- **7.** On the "Property Page" (Figure 10–14):
  - **a.** Ensure that all entries are correct. The only entries that typically need to be changed are the locations for the IHS server and the Plugin Directory.
  - **b.** Click Next.

Figure 10–14 Properties for the New Web Server

WebSphere, software		Weld		
View: All tasks	Cell=localhostCell01, Profile=Dmgr01			
- Welcome	Create new Web server definition			
⊕ Guided Activities		-		
Servers	Use this page to create a new web server.			
New server     Server Types     WebSphere application servers     WebSphere proxy servers     Generic servers     Version 5 JMS servers     WebSphere MQ servers     Web servers     Web servers     Clusters     DataPower      Core Groups	Step 1: Select a node for the Web server       Enter the properties for the new Web server         the Web server type       Enter the Web server properties.         Step 2: Select a Web server template       * Web server installation location [/u01/software/Apps/IBM/HTTPServer         → Step 3: Enter the properties for the mew Web server template       * Plug-in installation location [/u01/software/Apps/IBM/WebSphere/Plugins			
Applications	Application mapping to the Web server       Step 4: Confirm			
± Jobs	new Web server			
+ Services	Enter the IBM Administration Server properties.			
H Resources     ■	* Administration Server Port			
∃ Security	8008			
Environment	* Username			
∃ System administration	admin			
Users and Groups	* Password			
Honitoring and Tuning     Monitoring and Tuning     A statement     A				
Troubleshooting	* Confirm password			
Service integration				
+ UDDI	Use SSL	▣		
	Previous Next Cancel			

**8.** Confirm the new Web server (Figure 10–15), then click **Finish**.

Figure 10–15 New Web Server Confirmation

WebSphere. software		Wel
View: All tasks	Cell=localhostCell01, Profile=Dmgr01	
Welcome	Create new Web server definition	
Guidea Activities     Servers	Use this page to create a new we	b server.
New server     Server Types	Step 1: Select a	Confirm new Web server
WebSphere application servers     WebSphere proxy servers     Generic servers     Version 5JMS servers     WebSphere MQ servers	node for the web server and select the Web server type Step 2: Select a Web server template Step 3: Enter the properties for the new Web server	The following is a summary of your selections. Click the Finish button to complete the Web server creation. If there are settings you wish to change, dick on Previous button to review the server settings. Summary of actions: New Web server entry "Ins8_224" will the created on node "webservers224" Platform Type "Linux" Web server installation root ''ou'u doeb web web webservers' ''ou'u doeb webserver'
	→ Step 4: Confirm new Web server	Plug-in installation root ?/u01/software/Apps/IBM/WebSphere/Pl
	Previous Finish Cancel	-

**9.** Save the changes as requested (Figure 10–16).

Figure 10–16 Save the Changes to the Web Server

WebSphere. software	Welcom
View: All tasks V Viewee	Cell=localhostCell01, Profile=Dmgr01 Web servers ?
Guided Activities	Web servers > Save
Servers	Save your workspace changes to the master configuration.
New Server     New Server     WebSphere application servers     WebSphere proxy servers     Generic servers     Version 5 JMS servers     WebSphere MQ servers	Click Save to update the master repository with your changes. Click Discard to discard your changes and begin work again using the master repository configuration. Click Cancel to continue working with your changes. Total changed documents: 36 Synchronize changes with Nodes Save Discard Cancel

**10.** You can now start and stop the web server from the WAS console, using the Web servers selection.

# Installing Microsoft Internet Information Services 8.0 on Windows 2012 Server

This chapter explains how to install and test Microsoft's Internet Information Services (IIS) 8.0 on Windows 2012 Server.

This chapter contains the following sections:

- Section 11.1, "Installing IIS 8.0"
- Section 11.2, "Verifying the Installation"
- Section 11.3, "Starting and Configuring IIS 8.0"
- Section 11.4, "Proxing Using IIS 8.0"

# 11.1 Installing IIS 8.0

If Internet Information Services is not installed or is only partially installed, follow Microsoft's instruction for installing IIS 8.0 on Windows 2012 Server.

The following is a summary of the instructions:

1. From the "Server Manager," click Add roles and features (Figure 11–1).

Figure 11–1 Server Manager Dashboard



2. In the "Before You Begin" screen, click Next.

**3.** In the "Select installation type" screen, select **Role-based or feature-based** installation (Figure 11–2) and then click **Next**.

Figure 11–2 Select Installation Type

<b>a</b>	Add Roles and Features Wizard
Select installation	DESTINATION SERVER W52012.attes.orade.com
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).
	R
	< Previous Next > Install Cancel

**4.** In the "Select destination server" screen (Figure 11–3), select the destination server where IIS will be installed.

Figure 11–3 Select Destination Server

<b>a</b>	Add Roles and Features Wizard					x
Select destination server						/ER om
Before You Begin Installation Type Server Selection	Select a server or a virtual hard disk on which to install roles and features.  Select a server from the server pool Select a virtual hard disk					
Server Roles Features Confirmation	Server Pool					
Results	Name         IP Address         Operating System           server123.example.com         192.1.0.2         Microsoft Windows Server 2012 Standard					
		À				
1 Computer(s) found This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.						the
		< Pre	vious Next > Install		Cance	1

5. In the "Server Roles" section, select Web Server IIS.

The "Add Roles and Features Wizard" window opens.

**6.** In the "Add Roles and Features Wizard" window (Figure 11–4), click **Add Features**.

2	Add Roles and Features Wizard	_ 🗆 X
Select server ro	Add Roles and Features Wizard	DESTINATION SERVER WS2012.sites.oracle.com
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add features that are required for Web Server (IIS)? The following tools are required to manage this feature, but do not have to be installed on the same server.    Web Server (IIS) Management Tools [Tools] IIS Management Console   Include management tools (if applicable)  Add Features Cancel	x ion ver (IIS) provides a reliable, able, and scalable Web on infrastructure.
	< Previous Next >	Install

Figure 11–4 Add Roles and Features Wizard

**7.** In the "Select features" screen (Figure 11–5), click Next.

Figure 11–5 Select Features

<b>b</b>	Add Roles and Features Wizard	_ <b>_</b> ×
Select features Before You Begin	Select one or more features to install on the selected server.	DESTINATION SERVER WS2012.sites.oracle.com
Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services	Features         Image: Image	Description Windows Remote Management (WinRM) IIS Extension enables a server to receive a management request from a client by using WS- Management. WinRM is the Microsoft implementation of the WS-Management protocol which
Confirmation Results	BranchCache Client for NFS Data Center Bridging Failover Clustering Group Policy Management (Installed) Ink and Handwriting Services	provides a secure way to communicate with local and remote computers by using Web services.
	Internet Printing Client IP Address Management (IPAM) Server  C  C  H  C  Previous Next	> Install Cancel

- 8. In the "Role Services" screen (Figure 11–6), ensure that the following are selected:
  - Common HTTP Features
    - HTTP Redirection
  - Health and Diagnostics
    - HTTP Logging
  - Application Development
    - ISAPI Extensions
    - ISAPI Filters

- Management Tools
  - IIS Management Console

Figure 11–6 Select Role Services

<b>a</b>	Add Roles and Features Wizard	_ <b>D</b> X
Select role services		DESTINATION SERVER WS2012_sites.oracle.com
Server Selection Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Role services         URL Authorization         Windows Authentication         Application Development         .NET Extensibility 3.5         .NET Extensibility 4.5         Application Initialization         ASP         ASP.NET 3.5	Description Logging Tools provides infrastructure to manage Web server logs and automate common logging tasks.
	ASP.NET AS C CGI VISAPI Extensions VISAPI Filters Server Side Includes WebSocket Protocol V C ETR Course III Previous Next	> Install Cancel

9. Confirm you selection (Figure 11–7) and click Install to complete the installation.

Figure 11–7 Confirm Installation Selections

Add Roles and Features Wizard				
Confirm installatio	on selections ws20124	IATION S sites.orad	ERVE	:R m
Before You Begin	To install the following roles, role services, or features on selected server, click Install.			
Installation Type	Restart the destination server automatically if required			
Server Selection Server Roles Features	Optional features (such as administration tools) might be displayed on this page because been selected automatically. If you do not want to install these optional features, click Pre their check boxes.	they ha	ve o cle	ar
Web Server Role (IIS)	Web Server (IIS)			^
Role Services	Management Tools IIS Management Console			
Confirmation	Web Server			=
Results	Application Development ISAQ Extensions ISAP Filters Common HTTP Features Default Document Directory Browsing Urrow Export configuration settings Specify an alternate source path			>
	< Previous Next > Install	Ca	ncel	

# 11.2 Verifying the Installation

After installing IIS, verify the installation to determine whether IIS is serving pages properly. Test the installed IIS from the server hosting it as well as from another browser on the network.

#### To verify that IIS is serving pages

- 1. Start a browser on the host that IIS is running on.
- 2. From the browser, go to the following URL: http://localhost/

IIS is installed and running if the browser displays the "IIS 8" page (Figure 11-8).

Figure 11–8 IIS 8



# 11.3 Starting and Configuring IIS 8.0

This section contains instructions on the following:

- Section 11.3.1, "Starting and Configuring IIS Manager"
- Section 11.3.2, "Changing the IIS Port"
- Section 11.3.3, "Adding a New ISAPI Filter"

#### 11.3.1 Starting and Configuring IIS Manager

- 1. From the "Server Manager" dashboard, select your IIS server.
- **2.** Right-click your server's name and then click the **Internet Information Service** (**IIS**) **Manager** (Figure 11–9).

<b>a</b>		Server Manager		- 0	x
Serve	er Manager 🕨 IIS	• (3)	)   🏴 Manage Tools	View H	Help
Dashboard Local Server Local Server L All Servers AD DS DNS	SERVERS All servers   1 total Filter Server Name IPv4 Address	P i∃ ▼ (R) ▼ Manageability Last Update	Windows Activation	TASKS -	
File and Storage Service	WS20         1921102           K         EVENTS           All events [0 total           Filter	Add Roles and Features Shut Down Local Server Computer Management Remote Desktop Connection Windows PowerShell Configure NIC Teaming Configure Nich Services (IIS) Manager Internet Information Services (IIS) Manager Manage As Start Performance Counters Refresh		TASKS -	
	Server Name ID Severity S	Source Log Date and Time			

Figure 11–9 Server Manager

The IIS Manager opens (Figure 11–10).

<b>V</b>	Internet Information Services (IIS) Manage	er 🗕 🗗 🗙
🔰 👌 Start Page		🖾 🖂 🔂 🕖 •
File View Help		
File View Help Connections Start Page D- WS20 (STES).Administrator	Novem Internet Information Services 8 Application Berver Manager Recent connections Name WS20 Iocalhost Connect to localhost Connect to localhost Connect to a server Connect to a server Connect to a splication IS News IS News is disabled, click the Enable IIS News link to get the most recent online Server	       
III > Ready		

Figure 11–10 Internet Information Services (IIS) Manager

### 11.3.2 Changing the IIS Port

- 1. Open the "Management Console" and browser to the Default Web Site.
- 2. Right-click the **Default Web Site** entry (Figure 11–11) and select **Edit Bindings**.

Figure 11–11 Default Web Site Entry

<b>a</b>			1	nternet Info	ormation S	ervices (IIS) I	Manager			_ 0 ×
🕤 💿 📢 🕨	WS20 >									🖬 🖾 🟠 🔞
File View Help	,									
Connections			20 110mo						Acti	ons
Connections Connec		Filter:	VS20 Home Governmenter Compression Compression Default Document Default Document SAPI Filters Server Certificates Worker Processes		Show All Group by: Area			Manage Server Restart Start Start Stop View Application Pools View Sites Change .NET Framework Versien Cat New Web Pletform Components Help Online Help		
	Switch to Co	ntent View Configurat Editor	Feature Delegation	Shared Configurat		k				
C III	>	E Features Vie	w Z Content	view						
eady										٩

**3.** In the "Site Bindings" dialog box (Figure 11–12), you can add or change the ports and IP address on the server IIS will bind.

Figure 11–12 Site Bindings

Site Bindings					? X
Туре	Host Name	Port	IP Address	Binding Informa	Add
http		80	*		Edit
					Remove
					Browse
				$\searrow$	
					Close

4. After all the desired changes have been made, click **Close**.

### 11.3.3 Adding a New ISAPI Filter

- 1. Open the "Management Console" and browser to the Default Web Site.
- 2. In the center list, click ISAPI Filters and then click Add (Figure 11–13).

Figure 11–13 ISAPI Filters

<b>V</b> ii		Internet Infor	mation Services (IIS) Manager	_ 0 ×
	▶ Default Web Site	2 🕨		🔯 🛛 🖓 I 🕼 •
File View Help				
Connections	ISAPI	Filters	process requests made to the Web server.	Actions Add Revert To Parent View Ordered List P Help Online Help
Configuration localbort' application	Host config. < locatio	o oath- "Default Web Site">		63
Configuration: localhost application	Hosticoning , <locatio< td=""><td>in path="Default Web Site"&gt;</td><td></td><td>1</td></locatio<>	in path="Default Web Site">		1

The "Add ASAPI Filter" dialog box opens (Figure 11–14).

Figure 11–14 Add ISAPI Filter

	Add ISAPI Filter	? ×
Filter name:		1
l Executable:		
	OK	Cancel

- 3. In the "Add ISAPI Filter" dialog box, fill in the following fields:
  - Filter Name Enter a filter name.
  - **Executable** Enter the location of the executable file.

The new filter is added to the "ISAPI Filters" list.

# 11.4 Proxing Using IIS 8.0

- 1. Open the "Management Console" and browser to the Default Web Site.
- 2. In the center list, click HTTP Redirect.
- **3.** In the center panel of the "Internet Information Services (IIS) Manager (Figure 11–15)," do the following:
  - a. Select the Redirect requests to this destination option.
  - **b.** In the text field (directly under the **Redirect requests to this destination** option), enter the location of the remote server (include the context root for WebCenter Sites or Satellite Server).
  - c. Click Apply.

Figure 11–15 HTTP Redirect

<b>2</b> ]	Internet Information Services (IIS) Manager	_ 0 ×
	▶ Default Web Site ▶	📅 🗵 🔂 🕡 🔻
File View Help		
Connections Connections Connections Start Page MS20ISTES/Administrator MS20ISTES/Administrator Connections MS20ISTES/Administrator Connections Connectio	We this feature to specify rules for redirecting incoming requests to another file or URL. Redirect requests to this destination:  Komple: http://www.contoso.com/sales Redirect Behavior Redirect all requests to exact destination (instead of relative to destination) Only redirect requests to content in this directory (not subdirectories) Status code: Found (302)	Actions Apply Cancel P Help Online Help
Configuration: 'Default Web Site' web.	config	•

# Installing Microsoft Internet Information Services 7.x on Windows 2008 Server

This chapter explains how to install and test Microsoft's Internet Information Services (IIS) 7.0/7.5 on Windows 2008 Server.

This chapter contains the following sections:

- Section 12.1, "Installing IIS 7.x"
- Section 12.2, "Verifying the Installation"
- Section 12.3, "Starting and Configuring IIS"

# 12.1 Installing IIS 7.x

If IIS is not installed or is only partially installed, follow Microsoft's instruction for installing either IIS 7.0 on Windows 2008 Server or IIS 7.5 on Windows 2008 R2 Server.

Here is a summary of the instructions:

- 1. Select Start > Settings > Control Panel.
- 2. Select Programs and Features
- **3.** Select **Turn Windows features on or off** (Figure 12–1).

	Programs a	and Features				
G	-0	Control Panel Program	ms and Features	💌 🛃 Search		2
File	e Edit Vie	ew Tools Help				
	Tasks	1.1.	Uninstall or change a program			
	Get new pro	ograms online at	To uninstall a program, select it from the list and	then dick "Uninstall", "Char	ige", or "Repair".	
6	Turn Windo	ws features on or off	🕘 Organize 🔻 📳 Views 💌		.,	0
			Name 🔺	<ul> <li>Publisher</li> </ul>	✓ Install	✓ Size ✓
			💷 Java DB 10.3.1.4	Sun Microsystems, Inc	2/8/2008	25.8 MB
			🕌 Java(TM) 6 Update 4	Sun Microsystems, Inc.	2/8/2008	170 MB
			💷 Java(TM) SE Development Kit 6 Update 4	Sun Microsystems, Inc.	2/8/2008	56.5 MB
			🕌 Java(TM) SE Development Kit 6 Update 4	Sun Microsystems, Inc.	2/8/2008	349 MB
			Microsoft Office 2003 Web Components	Microsoft Corporation	2/8/2008	29.0 MB
			Microsoft SQL Server 2005 (64-bit)	Microsoft Corporation	2/8/2008	634 MB
			Microsoft SQL Server 2005 Backward compatibility	Microsoft Corporation	2/8/2008	46.4 MB
			Microsoft SQL Server 2005 Books Online (English)	Microsoft Corporation	2/8/2008	138 MB
			Microsoft SQL Server Native Client	Microsoft Corporation	2/8/2008	5.81 MB
			📑 Microsoft SQL Server Setup Support Files (English)	Microsoft Corporation	2/8/2008	36.1 MB
			📑 Microsoft SQL Server VSS Writer	Microsoft Corporation	2/8/2008	573 KB
			🖟 Microsoft Visual Studio 2005 Premier Partner Editi	Microsoft Corporation	2/10/2008	184 MB
			SQLXML4	Microsoft Corporation	2/8/2008	2.23 MB
			📵 VMware Tools	VMware, Inc.	2/8/2008	5.68 MB
				vinita e y ane.	2/0/2000	5.00 mb

#### Figure 12–1 Turn Windows Features On or Off

**4.** In the "Server Manager" window (Figure 12–2), scroll down to the "Features Summary" section and click **Add Features**.
Server Manager			×
File Action View Help			
Server Manager (WINDOWS2008SQL2	Server Manager (WINDOW52008SQL2)		
Configuration	Get an overview of the status of this server, perform	orm top management tasks, and add or remove ser	rver roles and features.
	Last checked for updates: 2/18/2008 4:	03 PM	Configure IE ESC
	Last installed updates: 2/10/2008 3:	28 AM	
	SCLE Server Manager (WINDOWS20085QL2)  Cet an overvew of the status of firs server, perform top management tasks, and add or remove server roles and features.  Lost checked for updates: 2/18/2008 4:03 PM Last installed updates: 2/18/2008 3:23 AM IE Enhanced Security Configuration On for Administrators On for Users  Roles Summary  Roles: 0 of 17 installed  Features: 0 of 34 installed  Resources and Support Heb naike Windows Server better by participating in the Customer Experience Incrovement Program (CEIP) Roport Issues to Microsoft and get advisors to common problem by turning on Windows Error Reporting Browse technical resources for Windows Server, including how-to heb, guides, web casts, and tools.  Cet competed with other Microsoft austomers through nome community resources.  Send us your feedback, such as bug reports and feature suggestions, to help naice Windows better.  Cet Last referent: 2/18/2008 4:03:17 PM Configure refered1		
	Roles Summary		👔 Roles Summary Help
	Roles: 0 of 17 installed		Go to Roles
			Add Roles
	⊘ Features Summary		Features Summary Help
			Add Features
	Resources and Support		Resources and Support Help
	Help make Windows Server better by participating in the Cust	omer Experience Improvement Program (CEIP)	Participate in CEIP
	Report issues to Microsoft and get solutions to common proble	ems by turning on Windows Error Reporting.	👰 Turn on Windows Error Reporting
	Browse technical resources for Windows Server, including how	v-to help, guides, web casts, and tools.	🙀 Windows Server TechCenter
	Get connected with other Microsoft customers through online	community resources.	Windows Server Community Center
	Send us your feedback, such as bug reports and feature sugg	gestions, to help make Windows better.	😪 Send Feedback to Microsoft
	Configure refresh: 2/18/2008 4:05: 17 PM Configure refresh		<u> </u>

Figure 12–2 Server Manager - Add Features

5. In the "Select Features" screen (Figure 12–3), select .NET Framework 3.0 Features.

#### Figure 12–3 Select Features

Add Features Wizard		×
Select Features		
Features Confirmation Progress Results	Select one or more features to install on this server.         Features:         Image: Server Extensions         Image: Group Policy Management         Image: Group Policy Management         Image: Group Policy Management         Image: Administration Kit         Desktop Experience         Group Policy Management         Image: Administration Kit         Desktop Experience         Group Policy Management         Image: Administration Kit         Desktop Experience         Multipath I/O         Multipath I/O         Quality Windows Audio Video Experience         Remote Assistance         Remote Server Administration Tools         Removable Storage Manager         Simple TCP/IP Services         Simple TCP/IP Services         Simple TCP/IP Services         Multipath I/O         More about features	>       Install         Cancel       Install

6. In the "Add Features Wizard" dialog box (Figure 12–4), select Add Required Role Services.

Figure 12–4 Add Required Role Services Button



**7.** The **Web Server (IIS)** option (Figure 12–5) appears in the "Add Features Wizard." Click **Next**.

#### Figure 12–5 Web Server (IIS)

Add Features Wizard		X
Select Features		
Features Web Server (IIS) Role Services Confirmation Progress Results	Select one or more features to install on this server.         Features: <ul> <li>NET Framework 3.0 Features</li> <li>BitLocker Drive Encryption</li> <li>BitTS Server Extensions</li> <li>Connection Manager Administration Kit</li> <li>Desktop Experience</li> <li>Group Policy Management</li> <li>Internet Storage Name Server</li> <li>LPR Port Monitor</li> <li>Message Queuing</li> <li>Multipath I/O</li> <li>Quality Windows Audio Video Experience</li> <li>Remote Assistance</li> <li>Remote Server Administration Tools</li> <li>Remote Server Administration Tools</li> <li>Simple TCP/IP Services</li> <li>SIMTP Server</li> </ul> <ul> <li>CMMD Services</li> <li>Remote Absuites</li> </ul> <ul> <li>Mere about features</li> </ul>	>       Install       Cancel         >       Install       Cancel

**8.** In the "Introduction to Web Server (IIS)" screen (Figure 12–6), click Next.

Figure 12–6 Introduction to Web Server (IIS)

Add Features Wizard	×
Web Server (IIS)	
Features Web Server (IIS) Role Services Confirmation Progress Results	<ul> <li>Introduction to Web Server (IIS)</li> <li>Web servers are computers that have specific software that allows them to accept requests from client computers and return responses to those requests. Web servers let you share information over the Internet, or through intranets and extranets. The Web Server role includes Internet Information Services (IIS) 7.0, a unified Web platform that integrates IIS 7.0, ASP.NET, and Windows Communication Foundation. IIS 7.0 also features enhanced security, simplified diagnostics, and delegated administration.</li> <li>Things to Note</li> <li>Using Windows System Resource Manager (WSRM) can help ensure equitable servicing of Web server traffic especially when there are multiple roles on this computer.</li> <li>The default installation for the Web Server (IIS) role includes the installation of role services that enable you to serve static content, make minor customizations (such as default documents and HTTP errors), monitor and log server activity, and configure static content compression.</li> <li>Additional Information</li> <li>Overview of Web Server (IIS)</li> <li>Overview of Available Role Services in IIS 7.0</li> <li>IS Checkdists</li> <li>Common Administrative Tasks in IIS</li> <li>Overview of WSRM</li> </ul>
	< Previous Next > Install Cancel

- **9.** In the "Select Role Services" screen:
  - **a.** Select the following:
    - Common HTTP Features
    - ISAPI Extensions
    - ISAPI Filters
    - HTTP Logging
    - Management Tools
    - Any other roles that are required for your installation, such as HTTP Redirection
  - **b.** Click Next (Figure 12–7).



Add Features Wizard		×
Select Role Servi	ices	
Features Web Server (IIS) Role Services Confirmation Progress Results	Select the role services to install for Web Server (IIS):         Role services:         Image: Image	Description: <u>HTTP Redirection</u> provides support to redirect user requests to a specific destination. Use HTTP redirection whenever you want customers who might use one URL to actually end up at another URL. This is helpful in many situations, from simply renaming your Web site, to overcoming a domain name that is difficult to spell, or forcing clients to use a secure channel.

**10.** In the "Confirm Installation Selections" screen (Figure 12–8), confirm your choices and click **Install**.

Figure 12–8 Confirm Installation Selections

Add Features Wizard		×
Confirm Installat	ion Selections	
Features Web Server (IIS) Role Services Confirmation	To install the following roles, role services, or features, click Install.	-
Progress Results	<ul> <li>Web Server (IIS)</li> <li>Find out more about Windows System Resource Manager (WSRM) and how it can help optimize CPU usage</li> <li>Web Server</li> <li>Common HTTP Features</li> <li>Static Content</li> <li>Default Document</li> <li>Directory Browsing</li> <li>HTTP Errors</li> <li>HTTP Redirection</li> <li>Application Development</li> <li>.NET Extensibility</li> <li>ISAPI Extensions</li> <li>ISAPI Filters</li> <li>Health and Diagnostics</li> <li>HTTP Logging</li> <li>Security</li> <li>Request Filtering</li> <li>Management Tools</li> </ul>	
	< Previous Next > Install Cancel	

- **11.** Allow the installation to complete, then review the results.
- **12.** Click Close (Figure 12–9).

#### Figure 12–9 Installation Results

Add Features Wizard			×
Installation Resu	lts		
Features Web Server (IIS)	The following roles, role services, or features w	ere installed successfully:	
Confirmation Progress Results	The following role services were installed: Web Server Common HTTP Features Static Content Default Document Directory Browsing HTTP Errors HTTP Redirection Application Development .NET Extensibility ISAPI Extensions ISAPI Filters Health and Diagnostics HTTP Logging Security Request Filtering Management Tools IIS Management Console		
	INET Framework 3.0 Features     Print, e-mail, or save the installation report	Installation succeeded	<b>_</b>
	< P	revious Next > Close	Cancel

**13.** It is suggested at this point to reboot, but it is not required.

# 12.2 Verifying the Installation

After installing IIS, you must verify the installation to determine whether it is serving pages properly. Test the installed IIS from the server that is hosting it as well as from another browser on the network.

#### To verify that IIS is serving pages

- 1. Start a browser on the host that IIS is running on.
- 2. From the browser, go to the following URL: http://localhost/

IIS is installed and running if the browser displays the "IIS7" page (Figure 12–10).

#### Figure 12–10 IIS7 Page



# 12.3 Starting and Configuring IIS

Section 12.3.1, "IIS Manager" Section 12.3.2, "Changing the IIS Port" Section 12.3.3, "Adding a New ISAPI Filter"

#### 12.3.1 IIS Manager

- **1.** Start the management console, which is required before any other actions are taken.
- 2. Select: Start > All Programs > Administrative Tools > Internet Information Services (IIS) Manager
- **3.** When the "Internet Information Services (IIS) Manager" loads:
  - **a.** Expand the left-hand tree that starts with the current system's name (Figure 12–11).

Harmet Information Services (115	) Manager	
🚱 💽 🖣 🕨 Start Page		😰 🖂 🟠 I 🕲 🗸
File View Help		
Connections	Application Services 7	
	Name     Server       WINDCWS2008SQL2     locahost       Connect to a server     Connect to a server       Connect to a server     Connect to a server       Connect to a server     Connect to a server       Connect to a server     Connect to a server	Online resources IIS News and Information IIS Downloads IIS Forums TechNet MSDN ASP.NET News
	IIS News TIS News is disabled, dick the Enable TIS News Ink to get the most recent online news.	Enable IIS Nows
Ready		

Figure 12–11 Internet Information Services (IIS) Manager

**b.** In the "Sites Entry" field, select **Default Web Site**.

### 12.3.2 Changing the IIS Port

- 1. Open the management console and browser to the Default Site
- 2. Right-click the Default Web Site entry and select Edit Bindings from the menu.
- **3.** In the "Site Bindings" dialog box (Figure 12–12) you can add or change the ports and IP address on which the Server IIS will bind.

Site Bindin	gs				<u>? ×</u>
Type http net.tcp net.pipe net.m	Host Name	Port 80	IP Address *	E▲ 8 *	Add Edit Remove
1					Browse. Close

Figure 12–12 Site Bindings

4. Click **Close** after all changes have been made.

# 12.3.3 Adding a New ISAPI Filter

- 1. Open the management console and browser to the **Default Site**.
- 2. In the center list, click **ISAPI Filters** and click **Add** (Figure 12–13).

Figure 12–13 ISAPI Filters

Internet Information Services (IIS) Manager	
COO NUNDOWS2008SQL2 + Stes + Default Web Site +	🖸 🖂 🟠 I 🖉 🔻
File View Help	
Connections       Start Page         W VMDOWS2003Q.2 (WNDOW:       Use this feature to configure ISAPI filters that process requests made to the Web server.         Group by:       No Grouping         Name -       Executable         Name -       Executable         Entry Type         Image: Start Page         Image: Start Page	Actions Add Revert To Inherited View Ordered Lst The Onine Help Actions Help Onine Help

- **3.** The "Add ISAPI Filter" dialog box appears.
  - **a.** Fill in the fields provided:
    - Filter name: Enter a filter name.
    - **Executable:** Enter the location of the Executable.
  - **b.** Click **OK** (Figure 12–14).

Add ISAPI Filter	<u>? ×</u>
Filter name:	
Executable:	
	OK Cancel

Figure 12–14 Add ISAPI Filter

The new filter is added to the "ISAPI Filters" list, as shown in Figure 12–15.

Figure 12–15 New Filter

Use this feature to configure ISAPI filters that process requests made to the Web server.					
Group by:	No Grouping	)	•		
Name 🔺		Executa	ble	Entry Type	
test C:\Program Fil		ram Files\Java\jdk1.6.0	Local		

## 12.3.4 Proxying Using IIS

- 1. Open the management console and browse to the Default Site.
- 2. In the center list, click HTTP Redirect.
- 3. In the center panel of the "Internet Information Services (IIS) Manager":
  - a. Select the Redirect requests to this destination option (Figure 12–16).

#### Figure 12–16 HTTP Redirect

	HTTP Redirect					
Use this	feature to specify rules for redirecting incoming requests to another file or URL.					
🗆 Red	Redirect requests to this destination:					
Exa	Example: http://www.contoso.com/sales					
Redire	ect Behavior					
🗖 🗖 Re	direct all requests to exact destination (instead of relative to destination)					
C Or	ly redirect requests to content in this directory (not subdirectories)					
Status code:						
Found	d (302)					

- **b.** Enter the location of the remote server in the text field (for WebCenter Sites or Satellite Server include the context root).
- c. Click Apply.

# Part IV

# Installing and Configuring an LDAP Server

If you choose to use LDAP, WebCenter Sites must have access to a supported LDAP server specifically configured for WebCenter Sites. This part describes how to install and configure a supported LDAP server for integration with WebCenter Sites.

**Note:** You must set up a supported LDAP server **before** you run the WebCenter Sites-LDAP integrator.

If you are integrating with LDAP, but no content management sites exist in WebCenter Sites, then upon completion of the LDAP integration procedure, refer to instructions in Section 20.4, "Post-Integration Steps: When CM Sites Have Not Been Created."

Part IV contains the following chapters:

- Chapter 13, "Setting Up Oracle Internet Directory"
- Chapter 14, "Setting Up the Oracle WebLogic 10.3 Embedded LDAP Server"
- Chapter 15, "Setting Up IBM Tivoli Directory Server 6.x"
- Chapter 16, "Installing Microsoft Active Directory 2012"
- Chapter 17, "Installing Microsoft Active Directory 2008"
- Chapter 18, "Setting Up OpenLDAP 2.3.x"

# **Setting Up Oracle Internet Directory**

This chapter provides information about setting up the Oracle Internet Directory. This chapter contains the following sections:

- Section 13.1, "Installing Oracle Internet Directory"
- Section 13.2, "Starting the Required Oracle Internet Directory Components"
- Section 13.3, "Using the Oracle Directory Services Manager"
- Section 13.4, "Configuring Oracle Internet Directory"
- Section 13.5, "Connecting to Oracle Internet Directory using an LDAP Browser"
- Section 13.6, "Adding Users/Roles Using an LDIF File"

# 13.1 Installing Oracle Internet Directory

Use the documentation that corresponds with the version of Oracle Internet Directory you are installing to guide you through the installation process.

The following components are required to install Oracle Internet Directory:

- Oracle Database 11g Version 11.2.0
- Oracle Fusion Middleware Repository Creation Utility 11g (11.1.1.5.x)
- Oracle WebLogic Server (10.3.5) Generic and Coherence
- Oracle Identity Management 11g (11.1.1.5.x)

# 13.2 Starting the Required Oracle Internet Directory Components

#### 1. Start the WebLogic Admin Server:

<domain\_home>/bin/startWebLogic.sh

#### For example:

/u01/software/Apps/OraMiddleware/user\_ projects/domains/OIAMDomain/bin/startWebLogic.sh

2. Start the WebLogic Node Manager:

<weblogic\_home>/server/bin/startNodeManager.sh

#### For example:

/u01/software/Apps/OraMiddleware/wlserver\_10.3/server/bin/startNodeManager.sh

- 3. View the Enterprise Manager Farm Application
  - **a.** From a browser, go to the following URL:

http://<weblogic\_admin\_host>:<weblogic\_admin\_port>/em

- **b.** Log in using the WebLogic server credentials.
- **c.** On the right side, under **Fusion Middleware** (Figure 13–1), you can view the status for each of the applications and servers. Currently only AdminServer should be shown as running.

Figure 13–1 Fusion Middleware

Fusion Middleware				÷
	90%	■ 09 ● 09 ■ 01 (1	swn ) )	
Name		Status	Host	CPU Usage (%)
🖃 🛅 WebLogic Domain				()
🖃 🔠 OAMDomain				
🔄 AdminServer		Û	fwsevm122.us.or	2.16
🗐 oam_server1				
📇 wls_ods1		-		
🗐 wls_oif1				
Identity and Access				
OAM				
oid 1			fwsevm122.us.or	
🗛 ovd 1			fwsevm122.us.or	
🖃 🚞 Web Tier				
General and the second			fwsevm122.us.or	
🍓 ohs 1			fwsevm122.us.or	
Swebcache 1			fwsevm122.us.or	

The required applications are: the Oracle Internet Directory server (oid1) and the Oracle Directory Services Manager web application (wls\_ods1) which is used for Oracle Internet Directory administration.

- 4. Start the Oracle Internet Directory server.
  - **a.** Set the ORACLE\_INSTANCE environment variable:

export ORACLE\_INSTANCE=<middleware\_home>/asinst\_1

**b.** Start the server using the opmnctl command:

<middleware\_home>/Oracle\_IDM1/opmn/bin/opmnctl startall

**c.** View the opmnctl processes:

<middleware\_home>/Oracle\_IDM1/opmn/bin/opmnctl status

**d.** Stop any unwanted non-oid1 components using the values from the chart output from step 3c on page 13-2.

<middleware\_home>/Oracle\_IDM1/opmn/bin/opmnctl stopproc ias-component=<ias-component\_name>

In the Enterprise Farm Application you should now see the Oracle Internet Directory server (oid1) as started.

- 5. Start the Oracle Directory Services Manager web application (Figure 13–2):
  - **a.** From the Farm Application, click **wls\_ods1**.
  - **b.** Under **wls\_ods1**, click **WebLogic Server**.

A drop-down menu opens.

c. In the drop-down menu, select **Control** and then click **Start Up**.

Figure 13–2 Oracle Directory Services Manager

	 <b>vls_ods1</b> NebLogic Server ↓									Pag	e Refreshed Dec	Logged in 11, 2012 10:36	т <b>аз web</b> 6:48 АМ ES
ľ	Home			2		beothes							3
	Control >	Start Up	To see for our and success this Webl and		12	und Loud							
	Desformance Summary	Shut Down.	Server, use the <u>Oracle WebLogic Server</u> Administration Console.		8								
	JVM Performance		Work Manager		4								
	PortUsage		Requests (per minute) Unavailable Pending Requests Unavailable		0								2
	Application Deployment > System MBean Browser		JMS										1
	Web Services		JMS Servers Unavailable Pending Messages Unavailable										
	WebLogic Server Administration Console		Current Messages Unavailable		10:22 AM	10:24	10:26	10:28	10:30	10:32	10:34	10:36	0
	General Information	ailable Tailable	Open JDBC Connections Unavailable	-	<	nder 11 2012						•	
	Bean Access Successes (%) Una Bean Transaction Commits (per minute) Una	/ailable /ailable	Active Transactions Unavailable Transaction Commits (per minute) Unavailable			- Re	squest Proces	sing Time (ms)	Requests	(per minute)		Tab	la Mari
	Bean Transaction Rollbacks (per minute) Una Bean Transaction Timeouts (per minute) Una Bean Transaction Commits (%) Una	/ailable /ailable /ailable	Transaction Rollbacks (per minute) Unavailable									100	

When startup has completed, the status arrow changes to green.

# **13.3 Using the Oracle Directory Services Manager**

- 1. Access the Oracle Directory Services Manager:
  - **a.** From the Farm Application, click **oid1**.
  - **b.** Under **oid1**, click **Oracle Internet Directory** which becomes a drop-down menu.

A drop-down menu opens.

- **c.** In the drop-down menu, point to **Directory Services Manager** and click **Data Browser**.
- **d.** In the "Connect" screen (Figure 13–3), fill in the following fields and then click **Connect**:
  - In the **User Name** field, enter cn=orcladmin.
  - In the **Password** field, enter the password specified during the Oracle Identity Directory installation.
  - In the Start Page field, select a start page.

Figure 13–3 Connect

12	OID - se Idap://	rver.example.com:3131 server.example.com:3131
	* User Name * Password Start Page	cm=ordadmin     Home     Home     Concle and/or its affiliates. All rights reserved

This connection will be saved for later use.

- 2. View or modify Oracle Internet Directory Data:
  - **a.** In the Oracle Directory Services Manager (Figure 13–4), click the **Data Browser** tab.
  - **b.** Expand dc=com, dc=oracle, dc=us.

The roles for WebCenter Sites are stored in cn=Groups. The users for WebCenter Sites are stored in cn=Users.

- **c.** (Optional) Add/Remove a role for a user:
  - a. Expand cn=Groups
  - **b.** Click the role to be added/removed.

#### Figure 13–4 Oracle Directory Services Manager

0							
Rone C Data Browser Schema & Schema & Advanced							
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
	🔏 ElementEditor						
😤 Data Tree							
🕒 🕑 🏹 👧 🔍 🥒 🔤 📩 🗙 🇞	Distinguished Name: cn=ElementEditor,cn=Groups,dc=us,dc=orade,dc=com						
E Root	Created by: cn=ordadmin Modified by: cn=ordadmin						
Gregoracle internet directory	Created at: December 6, 2012 10:44:30 AM EST Modified at: December 6, 2012 10:54:09 AM EST						
🗷 🖾 on=OracleContext							
⊞	Carry Attributes California Armon Land Armon						
⊞							
🗄 🛅 on=Server Configurations							
Image:	Owner 📥 💥						
E Ġ dc=com	Oviner Name						
🖻 📢 dc=orade	No information currently available						
🗆 🧐 dc-us							
± 🛄 cn=Calendar Server							
E Ch=Groups							
E Var ch=AdminSite-AdvancedUser							
E Var ut=AdminSite-GeneralAdmin							
E Start Administra-Sites I per	Description 4 X						
E 3 cn=AdminSite-WorkflowAdmin	Members 🔒 🛷						
🗉 🐯 cn=Browser							
🗉 🎲 cn=ContentEditor	Member Name						
E Cn=ElementEditor E	cn-contentserver,cn-users,dc-us,dc-oracle,dc-com						
E 🐼 cn=ElementReader	cn=firstsite,cn=users,dc=us,dc=orade,dc=com						
El War on=FirstSiteII-AdvancedUser	cn-filiadaio co-linero de-line de-orade de-rom						
EI 🖓 m=FirstSiteII-ArtworkAuthor							
	Vanances and an an all and a second standard standard						
E 🖓 cn=FirstSiteII-ConnectorAdm							
E Configuration - FirstSiteII-ContentAuthor							
_ 00							

To remove a role from a user, select the user's name and click the red **X**, then click **Apply**.

To add a role to a user, click the green + next to the desired role, then either enter the full user name, or browse to the name of the desired user.

- **d.** (Optional) Change a user's password (Figure 13–5):
  - a. Expand cn=Users
  - **b.** Click the name of the user whose password you wish to change.
  - **c.** Click the **Attributes** tab.
  - **d.** In the "userPassword" field, enter the new password for the user and then click **Apply**.

Figure 13–5 Oracle Directory Services Manager

ORACLE <sup>®</sup> Directory Services Manager						
0						
🚹 Home 🛛 🔁 Data Browser 🖓 🚑 Schema 🔒	, Security Advanced					
Advanced       Image: Solution of the second se	Arthur         Distinguished Name: cn=Arthur,cn=Users,dc=us,dc=orade,dc=com         Created by: cn=ordadmin         Created at: December 6, 2012 10:45:47 AM EST         Modified at: December 6, 2012 10:45:47 AM EST         Attributes       Subtree Access					
Cn=replication configuration						
Cn=Server Configurations						
G dc=com	* O Author					
🖃 🎧 dc=oracle	Ar anur 🗤 🖓					
🖃 🦚 dc=us	* sn 🛛 Arthur 🕹 🦀 💥					
🕀 🛄 cn=Calendar Server						
	objectdass 🕂 🛞					
Cn=OracleContext	Name					
🖃 🛄 cn=Users	top					
E Q CO=Arthur	Person					
t Q cn=Connie	organizationalPerson					
± Q cn=Conrad						
E Q cn=ContentServer	Optional Attributes					
E Q ch=DefaultReader	a Click to manage which optional attributes are shown below.					
I Q ch=besiree						
	userPassword					
E V Cr=twadmin						
E & cn=Martha						
E & cn=Marv						
E & m=Napoleon						
E & cn=indpoteon						

# **13.4 Configuring Oracle Internet Directory**

**1.** Set the Server Mode:

**Note:** WebCenter Sites requires an LDAP server that is capable of recording data to enable User/Role modification in the WebCenter Sites Admin interface.

- **a.** From the Farm Application, click **oid1** (Figure 13–6).
- b. Under oid1, click Oracle Internet Directory.

A drop-down menu opens.

**c.** In the drop-down menu, select **Administration** and then click **Server Properties**.

-	<u> </u>					
	<u>บ</u> (	Oracle Internet Directory				
		Home	E			
		Monitoring	>			Load
		Control	> ;)		0	Total LDAP Connections
		Logs	_		0	Operations Completed
		Port Usage			5	Operations in progress
		Administration	2	Server Properties		
		Security	>	Shared Properties		
		Directory Services Manager	>			
				Replication Management		
		General Information		Tuning and Sizing		
	Γ					
		100				
		80				
		60				
		60				
		40				
		20				
		0				
		20 0 8				

Figure 13–6 Oracle Internet Directory: Server Properties

The "Server Properties" screen opens.

**d.** In the "Server Mode" field, select **Read/Write** (Figure 13–7) and then click **Apply**.

Figure 13–7 Server Properties

î	oid1 () Oracle Inter	net Directory 🗸							Logged	in as weblogic Page Refreshed	Host fwsevm122.us.orade.co Dec 11, 2012 10:47:46 AM EST 0
	Server Pro	operties									Apply Revert
	General	Performance	SASL	Statistics	Logging			-			
					Ser	/er Mode	Read / Write 💌				
		* Maximum nu	mber of e	ntries to be r	eturned by	a search		10000			
		* Maximum	time allow	ed for a sear	ch to compl	ete (sec)		3600			
	Preserve C	ase of Required /	Attribute I	Name specifie	d in Search	Request					
					Anonyn	nous Bind	Disallow			•	
	Port Numb	ers									
				Non-SSL F	ort 3060			<b>U</b>			
				SSL F	Port 3131			🚯 Change SS	L Settings		

**2.** Modify the default Password Policy:

**Note:** WebCenter Sites requires an LDAP server to allow passwords without numeric characters.

- **a.** In the Oracle Directory Services Manager, click the **Security** tab.
- **b.** In the left navigation pane, click **Password Policy**.
- **c.** Find the policy named **cn=default** with an "Effective Subtree" of cn=Users, dc=us, dc=oracle, dc=com by clicking each policy named **cn=default** and then clicking the **Effective Subtree** tab (Figure 13–8).

Figure 13–8 Effective Subtree

Access Control     Password Policy	💶 default
🗳 🚯 🗙	Distinguished Name: cn=default,cn=pwdPolicies,cn=Common,cn=Products,cn=OracleContext,dc=us,dc
Name cn=default cn=default	Created by: cn=orcladmin     Modified by: cn=orcladmin       Created at: March 20, 2012 2:12:40 PM EDT     Modified at: December 6, 2012 10:09:07 AM EST
cn=dipPolicy cn=repld	General Account Lockout IP Lockout Password Syntax Effective Subtree
	Password Policy Effective Subtree
	Root of Subtree cn=Users, dc=us,dc=orade,dc=com

- d. Click the Password Syntax tab.
- e. In the "Number of Numeric Characters" field, enter 0 (Figure 13–9).

Figure 13–9 Password Syntax

🗄 📴 Access Control	
C Password Policy	Appy Revert
X 🕼 🎦 🕻	Distinguished Name: cn=default,cn=pwdPolicies,cn=Common,cn=Products,cn=OracleContext,dc=us,dc=oracle,dc=com
Name	Created by: cn=orcladmin Modified by: cn=orcladmin
cn=default	Created at: March 20, 2012 2:12:40 PM EDT Modified at: December 6, 2012 10:09:07 AM EST
cn=default	
cn=dipPolicy	
cn=repld	General Account Lockout IP Lockout Password Syntax Effective Subtree
cn=rocpolicy	Charle Descured Suptra
	Number of Numeric Characters
	0
	Number of Passwords in History
	Illegal Password Values Separate with commas
	Minimum Number of Characters for Password 5
	Minimum Number of Alphabetic Characters
	Minimum Number of Special Characters 0
	Minimum Number of Uppercase Characters 0
	Minimum Number of Lowersons Characters
	Maximum Number of Repeated Characters 0
I I	

f. Click Apply.

# 13.5 Connecting to Oracle Internet Directory using an LDAP Browser

- **1.** Open the LDAP browser.
- 2. Select the Quick Connect tab.

- **3.** In the "Quick Connect" tab (Figure 13–10), fill in the following information:
  - Host: <oid\_host>
  - Port: <oid\_port> (default is 3060)
  - Base DN: dc=us,dc=oracle,dc=com
  - Anonymous bind: deselect
  - User DN: cn=orcladmin
  - Password: <oid\_password>

Figure 13–10 Quick Connect

🛃 Connect						
Session L	Session List Quick Connect					
Connecti	Connection Options					
- Host Info	0					
Host:	localhost Port: 3060	Version: 3 💌				
Base DN:	dc=us,dc=oracle,dc=com	-				
	Fetch DNs SSL	Anonymous bind				
- User Info	·o					
User DN	N: cn=orcladmin	append base DN				
Password	d: ••••••					
	Conn	ect Cancel				

4. Click Connect.

# 13.6 Adding Users/Roles Using an LDIF File

- **1.** Create an LDIF file:
  - a. Open a new file in a text editor.
  - **b.** For each new user add the following:

```
dn: cn=<user>,dc=Users,dc=us,dc=oracle,dc=com
userPassword: <password>
objectClass: top
objectClass: person
objectClass: organizationalPerson
sn: <user>
cn: <user>
```

**c.** For each new role add the following:

```
dn: cn=<role>,dn=Groups,dc=us,dc=oracle,dc=com
objectClass: top
objectClass: groupofUniqueNames
uniqueMember: cn=<user1>,cn=Users,dc=us,dc=oracle,dc=com
uniqueMember: cn=<user2>,cn=Users,dc=us,dc=oracle,dc=com
...
```

cn: <role>

- **d.** Save the new LDIF file.
- **2.** Import the LDIF file. Do one of the following:

- If you are using the ldapadd command:
  - **a.** Change to the <oracle\_home>/bin directory:

cd <middleware\_home>/Oracle\_IDM1/bin

**b.** Import the file using the ldapadd command:

./ ldapadd -h <oid\_host> -p <oid\_port> -D "cn=orcladmin" -w <oid\_ password> -f <path to ldif file> -x

- If you are using the Oracle Directory Services Manager:
  - **a.** Connect to the Oracle Identity Directory using the Directory Services Manager and click the **Data Browser** tab.
  - **b.** Under "Data Tree," select the icon located farthest to the right.

The "Import File" dialog box opens (Figure 13–11).

Figure 13–11 Import File

ORACLE' Directory Services Manager					
🔒 Home 😤 Data Browser 🛃 Scher	na 👘	Security •• Advanced			
Advanced		No object selected			
පි Data Tree		Please select an object from the left side navigation			
Root     Garcerade internet directory     Garcerade internet directory     Garcerade internet directory     Garcerade Context     Garcerade Context	Impor Select Note: 1. All d 2. The	t File  a LDIF File: Browse perational attributes except 'ordguid' will be excluded while importing the entries. maximum size of LDIF file that can be imported is 4MB. OK Cancel			

**c.** In the "Import File" dialog box, browse to the LDIF file you created in step 1 on page 13-8 and then click **OK**.

# Setting Up the Oracle WebLogic 10.3 Embedded LDAP Server

This chapter provides instructions on setting up the currently supported WebLogic Embedded LDAP Server for use with WebCenter Sites.

**Note:** You must set up WebLogic LDAP **before** you run the WebCenter Sites-LDAP integrator.

This chapter contains the following sections:

- Section 14.1, "Enabling the WebLogic Embedded LDAP Server"
- Section 14.2, "Modifying User Passwords"

## 14.1 Enabling the WebLogic Embedded LDAP Server

This section explains how to enable the WebLogic Embedded LDAP Server.

#### To enable the WebLogic Embedded LDAP Server

- 1. Log in to the WebLogic Server Administration Console.
- 2. In the "Domain Structure" tree at the left, click your WebLogic portal domain.
- **3.** Set the Embedded LDAP password (Figure 14–1):
  - **a.** In the workspace, select the **Security** tab, then select the **Embedded LDAP** sub-tab.
  - b. In the "Change Center" pane in the upper left, click Lock & Edit.
  - **c.** In the **Credential** field, enter the desired Embedded LDAP password. Re-enter the password in the **Confirm Credential** field for verification.
  - d. Click Save.

#### Figure 14–1 Security Tab - Embedded LDAP Sub-Tab

	Administration Console	)			Q			
Change Center	Home Log Out Pre	ferences 📐 Record Help		Q				
View changes and restarts			Welcom	e, weblogic Conr	nected to: cs8_cluster_hotspot			
Configuration editing is enabled. Future changes will automatically be activated as you	Home >cs8_cluster_hotspot							
modify, add or delete items in this domain.	Settings for cs8_clus	ter_hotspot						
Domain Structure	Configuration Monit	oring Control Security	Web Service Securit	y Notes				
cs8_cluster_hotspot	General Filter Ur	nlock User Embedded LD/	AP Roles Policies					
Deployments	Save							
Security Realms	This page allows you	to configure the embedded LC	AP server for this Web	Logic Server domain.				
	街 Credential:	•••••	•••••	The credential (usu connect to the emb Info	ally a password) used to bedded LDAP server. More			
	街 Confirm Creden	tial:						
How do I	街 Backup Hour:	23		The hour at which t should be backed u	the embedded LDAP server p. More Info			
Configure the embedded LDAP server     Configure Authentication and Identity     Assertion providers	街 Backup Minute:	5		The minute at whic server should be ba	h the embedded LDAP acked up. More Info			
System Status 🖃	👸 Backup Copies:	7		The maximum num should be made for	ber of backup copies that			
Health of Running Servers				server. More Info.				
Failed (0) Critical (0)	🗹 🕂 Cache Enable	ed		Specifies whether a embedded LDAP se	a cache is used with the rver. More Info			
Overloaded (0) Warning (0) OV (1)	街 Cache Size:	32		The size of the cach with the embedded	he (in kilobytes) that is used I LDAP server. More Info			
UK(I)	Cache TTI	~~		The time-to-live of	the cache (in seconds) that			

- **4.** Create an Embedded LDAP authentication provider (Figure 14–2):
  - **a.** In the "Domain Structure" tree, click **Security Realms**.
  - **b.** In the workspace, click **myrealm** and select the **Providers** tab.

		on Out Drefer	ancar Dara	and Halp		0		
Change Center	In nome La	og Out Prefere	ences 🕋 keco			<u> </u>		
View changes and restarts					Welcome,	weblogic Con	nected to: cs8_cluster_	
Configuration editing is enabled. Future	Home >cs8_c	cluster_hotspot :	>Summary of Secu	urity Realms >myre	alm >Providers			
changes will automatically be activated as you modify, add or delete items in this domain.	Settings for	Settings for myrealm						
Domain Structure	Configuratio	on Users an	d Groups Role	es and Policies	Credential Mappin	gs Providers	Migration	
cs8_cluster_hotspot	Authentic	ation Pass	word Validation	Authorization	Adjudication	Role Mapping	Auditing	
Environment     Deployments	Credential I	Mapping Ce	ertification Path	Keystores				
⊕-Interoperability ⊕-Diagnostics	An Autheni Authentica Different ti can also co	ntication provid ation provider i types of Auther onfigure a Real	fer allows WebLo in a security real ntication provide Im Adapter Auth	ogic Server to esta Im, and you can co ers are designed t hentication provid	ablish trust by valid onfigure multiple A o access different o er that allows you t	ating a user. You uthentication pro lata stores, such o work with user:	must have one widers in a security realm. as LDAP servers or DBMS. s and groups from previou	
⊕-Diagnostics	An Authenti Authentica Different ti can also co releases of Customiz Authentic	ntication provid ation provider i types of Auther onfigure a Real of WebLogic Ser ze this table cation Provid	ler allows WebLo in a security real ntication provide Ilm Adapter Auth rver.	ogic Server to esta Im, and you can co ers are designed t nentication provid	ablish trust by valid onfigure multiple A o access different d er that allows you t	ating a user. You uthentication pro lata stores, such o work with user.	must have one widers in a security realm. as LDAP servers or DBMS. s and groups from previou	
terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability terreferability	An Authenn Authentica Different t can also co releases of Customiz Authentic	ttication provid ation provider i types of Auther onfigure a Rea of WebLogic Ser ze this table cation Provid	ier allows WebLo in a security real ntication provide Im Adapter Auth rver.	ogic Server to esta Im, and you can co ers are designed t hentication provid	ablish trust by valid onfigure multiple A o access different c er that allows you t	ating a user. You uthentication pro lata stores, such o work with user: o work with user: Showin	must have one widers in a security realm. as LDAP servers or DBMS, s and groups from previou and groups from previou	
How do I     Configure Authentication and Identity     Assertion providers	An Authent Authentica Different t can also co releases of Authentic	ntication provid ation provider i types of Auther onfigure a Rea of WebLogic Ser ze this table cation Provid	ier allows WebLo in a security real nitrication provide Im Adapter Auth rver.	ogic Server to esta Im, and you can co ers are designed to hentication provid	ablish trust by valid onfigure multiple A o access different o er that allows you t	ating a user. You uthentication pro lata stores, such o work with user. Showin	must have one widers in a security realm. as LDAP servers or DBMS. s and groups from previou ng 1 to 3 of 3 Previous   Version	
<ul> <li>P-Interoperability</li> <li>Diagnostics</li> <li>How do I</li> <li>Configure Authentication and Identity Assertion providers</li> <li>Configure the Password Validation provider</li> </ul>	An Authent Authentica Different t can also co releases of Authentic New Nam Defau	ttication provid ation provider i types of Auther onfigure a Real of WebLogic Ser ze this table cation Provid Delete	ier allows WebLo in a security real nitication provided Im Adapter Auth rver.	ogic Server to esta Im, and you can co ers are designed t entication provid Descriptio WebLogic Au	ablish trust by valid onfigure multiple A o access different o er that allows you t n n	ating a user. You uthentication pro lata stores, so o work with user. Showin	must have one widers in a security realm. as LDAP servers or DBMS, s and groups from previou ng 1 to 3 of 3 Previous   Version 1.0	
<ul> <li>Enteroperability</li> <li>Diagnostics</li> <li>How do I</li> <li>Configure Authentication and Identity Assertion providers</li> <li>Configure the Password Validation provider</li> <li>Manage security providers</li> </ul>	An Authentica Different t can also co releases of Authentica Authentica New Defai	ttication provid ation provider i types of Auther onfigure a Real of WebLogic Ser ze this table cation Provid Delete	ier allows WebLo in a security real nication provide Im Adapter Auth rver. e ters Reorder cor erter	ogic Server to esta Im, and you can co ers are designed t hentication provid Descriptio WebLogic Au WebLogic Id	ablish trust by valid onfigure multiple A o access different c er that allows you t er that allows you t n n thentication Provice entity Assertion provi	ating a user. You uthentication pro lata stores, but o work with user: Showin ler wider	must have one widers in a security realm. as LDAP servers or DBMS, s and groups from previou ng 1 to 3 of 3 Previous   Version 1.0 1.0	
<ul> <li>Enteroperability</li> <li>Diagnostics</li> <li>How do I</li> <li>Configure Authentication and Identity Assertion providers</li> <li>Configure the Password Validation provider</li> <li>Manage security providers</li> <li>Set the JAAS control flag</li> </ul>	An Authentica Different t can also co releases of Authentica New Nam Defai Defai	ttication provide ation provider i types of Auther onfigure a Rea of WebLogic Ser ze this table cation Provid Delete ultAuthenticat ultIdentityAsse on	ier allows WebLo in a security real in a security real lim Adapter Auth rver. e ters Reorder or erter	ogic Server to esta Im, and you can co ers are designed t hentication provid Descriptio WebLogic Au WebLogic Id WebLogic Au	ablish trust by valid onfigure multiple A o access different c er that allows you t entity assertion provice entity Assertion provice atthentication Provice	ating a user. You uthentication pro fata stores, but o work with user: Showin ler wider ler	must have one widers in a security realm. as LDAP servers or DBMS, s and groups from previou ng 1 to 3 of 3 Previous   Version 1.0 1.0 1.0	

Figure 14–2 Providers Tab - Authentication Sub-Tab

- c. Click New.
- d. In the Name field, enter a name for the authentication provider.
- e. In the "Type" drop-down list, select DefaultAuthenticator.
- f. Click **OK**. The new authentication provider appears in the provider list.
- 5. In the "Change Center," Click Activate Changes.
- **6.** Stop the admin server.

## 14.2 Modifying User Passwords

This section shows you how to modify user passwords in WebLogic LDAP Server.

#### To modify user passwords in WebLogic LDAP Server

- 1. Log in to the WebLogic Server Administration Console.
- 2. In the "Domain Structure" tree, click Security Realms.
- **3.** In the workspace, click **myrealm** and select the **Users and Groups** tab (Figure 14–3).

#### Figure 14–3 Users and Groups Tab - Users Sub-Tab

ORACLE WebLogic Server® Administration Console								
Change Center	Home Log Out Preferences 🔤 Record Help							
View changes and restarts	Welcome, weblogic Connected to: cs8_cluster_hotspot							
Configuration editing is enabled. Future	Home >cs8_cluster_hotspot >Summary of Security Realms >myrealm >Providers >Users and Groups							
changes will automatically be activated as you modify, add or delete items in this domain.	Settin	Settings for myrealm						
Domain Structure	Confi	guration	Users and Group	Roles and Policies	Credential Mappings	Providers	Migration	
cs8 cluster hotspot	User	s Group	s					
Environment     Deployments     Services     Services     Denormality     Denormality     Denormality	comment     owners       ices     This page displays information about each user that has been configured in this security realm.       urity Realms     roperability       pnostics     Customize this table							
	Ne	w De	lete			Showing 1	to 10 of 32 P	revious Next
		Name	D	escription		P	rovider 🚕	
		OracleSy	stemUser 0	racle application softwar	re system user.	D	faultAuthentic	ator
How do I		weblogic	П	nis user is the default ad	ministrator.	D	efaultAuthentic	ator
Manage users and groups		Contents	erver			D	efaultAuthentic	ator
Create users		DefaultR	eader			D	efaultAuthentic	ator
Modify users		fwadmin				D	efaultAuthentic	ator
Delete users		Conrad				D	efaultAuthentic	ator
System Status		firstsite				D	efaultAuthentic	ator
Health of Running Servers		Mark				D	efaultAuthentic	ator
Eniled (0)		Mary				D	efaultAuthentic	ator
Critical (0)		Napoleor	1			D	aultAuthentic	ator
Overloaded (0) Warning (0) OK (1)	Ne	ew De	lete			Showing 1	to 10 of 32 P	revious   Next

**4.** Click the user whose password you want to change.

The workspace displays the "Settings for <user name>" screen, as shown in Figure 14–4.

#### Figure 14–4 General Tab

	Administration Console
Change Center	🔒 Home Log Out Preferences 🔤 Record Help
View changes and restarts	Welcome, weblogic Connected to: cs8_cluster_hotspr
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Home >cs8_cluster_hotspot >Summary of Security Realms >myrealm >Providers >Users and Groups >firstsite  Settings for firstsite
Domain Structure	General Passwords Attributes Groups
cs8_cluster_hotspot	Save
	Use this page to change the description for the selected user.
	Name: firstsite The login name of this user. More Info
	Description: A short description of this user. For example, the user's full name. More Info
How do I 🗆	Save
Create users	
Moarry users     Delete users	

**5.** Select the **Passwords** tab and enter the new password into both fields (Figure 14–5).

Figure 14–5 Passwords Tab

	Administration Console		Q				
Change Center	Home Log Out Preferences	Record Help	Q				
View changes and restarts		We	Icome, weblogic Connected to: cs8_cluster_hotspot				
Configuration editing is enabled. Future	Home >cs8_cluster_hotspot >Summ	ary of Security Realms >myrealm >Provide	ers >Users and Groups >firstsite				
modify, add or delete items in this domain.	Settings for firstsite						
Domain Structure	General Passwords Attrit	outes Groups					
cs8_cluster_hotspot	Save						
Deployments     Services	Use this page to change the pa	ssword for the selected user.					
Security Realms Interoperability	* Indicates required fields						
Diagnostics							
	* New Password:	•••••	The new password of this user. More Info				
	* Confirm New Password:	•••••					
	Save						
How do I							
Create users							
Modify users							
Delete users							

6. Click Save.

# Setting Up IBM Tivoli Directory Server 6.x

This chapter contains the following sections:

- Section 15.1, "IBM Tivoli Directory Server Commands"
- Section 15.2, "Before Installing IBM Tivoli Directory Server"
- Section 15.3, "Installing IBM Tivoli Directory Server"
- Section 15.4, "Configuring Tivoli Directory Server"
- Section 15.5, "Connecting to IBM TDS Using the LDAP Browser"

Note: In this chapter, Tivoli Directory Server is also referred to as "TDS."

# 15.1 IBM Tivoli Directory Server Commands

Action	Command
Starting an instance	<ldap directory="" install="">/sbin/idsslapd -I <instance name&gt;</instance </ldap>
Stopping an instance	<ldap directory="" install="">/bin/ibmdirctl stop -h localhost -D cn=root -w <password cn="root" for=""></password></ldap>
Checking an instance	<ldap directory="" install="">/bin/ibmdirctl status -h localhost -D cn=root -w <password cn="root" entered="" for=""></password></ldap>
Displaying list of instances	<ldap directory="" install="">/sbin/idsilist</ldap>
Loading the instance administration tool	<ldap directory="" install="">/sbin/idsxinst</ldap>
Loading the configuration tool for an instance	<ldap directory="" install="">/sbin/idsxcfg -I <name instance="" of=""></name></ldap>

Table 15–1 IBM Tivoli Directory Server Commands

# 15.2 Before Installing IBM Tivoli Directory Server

- 1. Create the following group: idsldap
- Create a user for the LDAP instance and write down the password, for example, ldapdb2. This password will be used in step 7 of Section 15.3, "Installing IBM Tivoli Directory Server."
- **3.** Check that pdksh is installed.

# 15.3 Installing IBM Tivoli Directory Server

- 1. Download the Tivoli Directory Server from IBM.
- **2.** Unzip the archive into a temporary directory.
- **3.** Go to the temporary directory and run (Figure 15–1):

./install\_ldap\_server.

Figure 15–1 IBM Tivoli Directory Server Installation

$\bigcirc \mathbb{Z}$			root	@rh4u	5asoracle120g	gr2sjes5:/u01/Downloads		- <b>•</b> ×
<u>F</u> ile	<u>E</u> dit <u>V</u>	iew <u>T</u> e	erminal	Ta <u>b</u> s	<u>H</u> elp			
cr	eating:	rspfi	le/					*
inf	lating:	rspfi	le/amv	vpmcfg	.rsp.templ	ate		
inf	lating:	rspfi	le/ins	stall_	amacld.opt	ions.template		
inf	lating:	rspfi	le/ins	stall_	amadk.opti	ons.template		
inf	lating:	rspfi	le/ins	stall_	amjrte.opt	ions.template		
inf	lating:	rspfi	.le/ins	stall_	ammgr.opti	ons.template		
inf	lating:	rspfi	le/ins	stall_	amproxy.op	tions.template		
inf	lating:	rspfi	le/ins	stall_	amrte.opti	ons.template		
inf	lating:	rspfi	le/ins	stall_	amwpm.opti	ons.template		
inf	lating:	rspfi	le/ins	stall_	ldap_serve	r.options.template		
inf	lating:	rspfi	le/pd	jrtecf	g.rsp.temp	late		
inf	lating:	rspfi	.le/pdp	proxyc	fg.rsp.tem	plate		
inf	lating:	rspfi	le/ama	udito	fg.rsp.tem	plate		
inf	lating:	am_up	date_1	ldap.s	h			
inf	lating:	tamtb	lcp.ks	sh				
inf	lating:	insta	11_1da	ap_ser	ver			
inf	lating:	insta	11_1da	ips_se	tup.jar			
cr	eating:	spd/	-		-			
inf	lating:	spd/1	daps.s	spd.te	mplate			
[root	@rh4u5a	soracl	.e120g1	2sjes	5 Download	s]# 1s		
am_up	date_ld	lap.sh	EIC			install_ldaps_setup	.jar rspfile	
C87B9	ML.zip		help			LAP	spd	. 6
commo	n	_	insta	11_1d	ap_server	linux_i386	tamtblcp.	ksh 🖉
[root	@rh4u5a	soracl	.e120gı	2sjes	5 Download	s]# ./install_ldap_s	erver	· · · · · · · · · · · · · · · · · · ·

**4.** When the installation dialog box appears, select your language (Figure 15–2) and click **OK**.

Figure 15–2 IBM Tivoli Directory Server Dialog Box

✓ IBM Tivoli Directory Server					
Select a language to be used for this wizard.					
English 💌					
<u>OK</u> <u>C</u> ancel					

5. Click Next (Figure 15–3).

Figure 15–3	IBM Tivoli Directory Server - Welcome
-------------	---------------------------------------

	IBM Tivoli Directory Server	- <b>•</b> ×
2.40 - 24	Welcome to the InstallShield Wizard for IBM Tivoli Directory Server	
	The InstallShield Wizard will install IBM Tivoli Directory Server on your computer. To continue, choose Next. IBM Tivoli Directory Server International Business Machines Corporation www.ibm.com	
InstallShield	< Back Next > Can	cel

**6.** On the "License Agreement" screen (Figure 15–4) select **I** Accept the terms in this license agreement, then click Next.

Figure 15–4 Software License Agreement



- 7. On the first configuration screen (Figure 15–5), fill in the fields:
  - **DB2 administrator ID**: Name of the user you created for the LDAP instance.
  - DB2 administrator password: Enter the password (ldapdb2) given to the LDAP instance user in step 2, Section 15.2, "Before Installing IBM Tivoli Directory Server."
  - Keep the default values for the other fields.
  - Click Next.
|                | IBM Tivoli Directory Server                                                                                                 | -==×                  |
|----------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 2              | IBM Tivoli Directory Server                                                                                                 |                       |
|                | To configure IBM Tivoli Directory Server, specify the following<br>DB2 administrator ID (also used for the instance name) * | database information. |
|                | Ildapdb2                                                                                                                    |                       |
| 1              | DB2 administrator password *                                                                                                |                       |
| 4.             |                                                                                                                             |                       |
| and the second | Password confirmation *                                                                                                     |                       |
| 0.000.000      | ****                                                                                                                        |                       |
|                | Group for the DB2 administrator (UNIX)                                                                                      |                       |
|                | root 🗾                                                                                                                      |                       |
|                | Create the DB2 administrator if it does not already exist                                                                   |                       |
|                | Directory server database home *                                                                                            |                       |
|                | j/home/ldapdb2                                                                                                              |                       |
|                | DB2 database name *                                                                                                         |                       |
|                | amdb                                                                                                                        |                       |
|                | Encryption seed *                                                                                                           |                       |
|                | 0123456789012                                                                                                               |                       |
|                |                                                                                                                             |                       |
|                |                                                                                                                             |                       |
|                |                                                                                                                             |                       |
| InstallShield  | · · · · · · · · · · · · · · · · · · ·                                                                                       |                       |
|                | < <u>B</u> ack <u>N</u> ext >                                                                                               | <u>C</u> ancel Help   |

Figure 15–5 Database information

- **8.** On the second configuration screen (Figure 15–6), fill in the fields:
  - **a.** Administrator password: Enter a password and remember it. This password will re-occur throughout the configuration and will be referred to as sn=root.
  - **b.** User-defined suffix: dc=<domain>, dc=<ext> For example, if your domain is example.com, then the User-defined suffix should read: dc=example, dc=com.
  - c. Confirm that the Local hostname is correct.
  - d. Click Next.

Figure 15–6	Database	Information	Continued
-------------	----------	-------------	-----------

	IBM Tivoli Directory Server	IX
16 8	IBM Tivoli Directory Server	
	To configure IBM Tivoli Directory Server, specify the following database information.	
the to		-
Aller Co.	Administrator persuand #	
2000	Auministrator passworu	
		-
	directoryserver exemple com	٦
		-
InstallShield		
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel Help	

- **9.** On the third configuration page (Figure 15–7):
  - **a.** Fill in the fields:
    - SSL key file password: Enter a password for SSL.
    - Non-SSL port: Confirm the Non-SSL port value is set to 389. If the Non-SSL has been changed, use the new value when installing WebCenter Sites.
  - b. Click Next.

	IBM Tivoli Directory Server
	IBM Tivoli Directory Server
	To configure IBM Tivoli Directory Server, specify the following database information.
0	Non-SSL port *
	[389
Car -	SSL port *
u.	je3e
Aller	SSL key file with full path *
	j/opt/ibm/ldap/V6.0/lib/am_key.kdb
	Browse
	SSL key file password *
	******
	Password confirmation *
	******
	Certificate label
	ĬPDLDAP
	Create SSL key file
	Enable Federal Information Processing Standards (FIPS)
InstallChield	1
instalismeto	
	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel Help

Figure 15–7 Database Information Continued

**10.** Confirm that enough disk space exists for the installation to succeed (Figure 15–8) and click **Next**.

### Figure 15–8 Disk Space

<ul> <li>✓</li> </ul>	IBM Tivoli [	Directory Server	
2 0	This information shows disk sp	ace available and space require	d by the installation.
	File system	Space required (KB)	Space available (KB)
	/home/ldapdb2 (/dev/map	81920	8228732
	/var (/dev/mapper/VolGrou	4	8228728
and the second second	/etc (/dev/mapper/VolGrou	8	8228724
	/opt/ibm/Idap (/dev/mappe	97118	8228720
C/	/opt/IBM/Idap/V6.0 (/dev/	58492	8228716
	/usr/local/ibm/gsk7 (/dev/	12408	8228712
	/opt/IBM/db2 (/dev/mappe	350929	8228712
	Component disk space details		
	IBM DB2 Space required (KB): 350929		
	IBM Global Security Kit Space required (KB): 12408		
	IDM Tixoli Directory Client		
	Space required (KB): 58504		
	IBM Tivoli Directory Server		
	Space required (KB): 97118		
	Directory server database hom	e	<b>•</b>
InstallShield			
		< <u>B</u> ack <u>N</u> ext >	<u>C</u> ancel Help

11. Review the summary (Figure 15–9) and click Next.

Figure 15–9 Configuration Options Review

	IBM Tivoli Directory Server	- <b>•</b> ×
200	Review the configuration options. Go back to change a value or proceed to begin the installation.	
	IBM DB2 = Not Installed	
	IBM Global Security Kit = Not Installed	
19/0	IBM Tivoli Directory Client = Not Installed	
	IBM Tivoli Directory Server = Not Installed	
	DB2 administrator ID (also used for the instance name) = Idapdb2 DB2 administrator password = ******* Create the DB2 administrator if it does not already exist = Yes Group for the DB2 administrator (UNIX) = root Directory server database home = /home/Idapdb2 DB2 database name = amdb Encryption seed = 0123456789012 Administrator ID = cn=root Administrator password = ******** User-defined suffix = dc=example,dc=com Local host name = xy2123.vm.example.com Non-SSL port = 389 SSL port = 636 SSL key file with full path = /opt/ibm/Idap/V6.0/lib/am_key.kdb Create SSL key file = Yes SSL key file password = ******* Certificate label = PDLDAP Enable Federal Information Processing Standards (FIPS) = No	
InstallShield		
t t t e s salt fait f f t t tai fait	< Back Next > Cancel	Help

**12.** Wait for the installer to finish (Figure 15–10).

	IBM Tivoli Directo	ory Server		////// ==×
200	IBM Tivoli Directory Server			
	Installing IBM DB2			
		5%		
		5%		
InstallShield				
		< <u>B</u> ack	<u>N</u> ext >	Cancel

Figure 15–10 IBM Tivoli Directory Server Installation in Progress

**13.** Click **Finish**. The installation is now complete (Figure 15–11).

Installation (Configuration has completed successfully	
Installation/Comparation has completed successiony.	
< <u>Back</u> <u>N</u> ext > <u>Finish</u> Hel	p

Figure 15–11 IBM Tivoli Directory Server Installation Completed

# 15.4 Configuring Tivoli Directory Server

**Note:** Only IBM TDS with sha encryption is supported by WebCenter Sites.

**1.** In a text editor open:

/home/<ldap user>/idsslapd-<ldap user>/etc/ibmslapd.conf.

- 2. Search for the ibm-slapdPwEncryption parameter and change the value to sha.
- **3.** Save the change in the text editor.

#### Completing and Verifying the LDAP Configuration

**1.** Start the IBM TDS instance:

<LDAP Install directory>/sbin/idsslapd -I <instance name>

**2.** Start the IBM TDS instance configuration tool (your display (Figure 15–12) must be set in order to continue the configuration process):

<LDAP Install directory>/sbin/idsxcfg -I <name of instance>

Figure 15–12 IBM Tivoli Directory Server Configuration Tool



3. Select Manage suffixes (Figure 15–13).

🔗 IBM Tivoli Directory Server C	onfiguration Tool	• • • • • •
<u>F</u> ile <u>H</u> elp		Ø
Choose a task: Overview Manage administrator I Configure database Configure database Manage changelog Manage suffixes Manage suffixes Manage schema files Manage schema files Manage schema files Restore database Performance tuning	Manage suffixes Suffix DN Manage suffixes Current suffix DNs Cn=localhost cn=ibmpolicies o=sample dc=example,dc=com	<u>A</u> dd <u>R</u> emove
	Note: Removing a suffix eliminates access to all directory data be that suffix; however, the data is not removed from the directory.	neath I Help 2

Figure 15–13 IBM Tivoli Directory Server Configuration Tool - Manage Suffixes

**4.** Make sure the User-defined suffix that was specified during installation appears in the list, then click **OK**.

#### Importing an LDIF file (LDAP Browser)

**1.** Start the IDM TDS instance:

<LDAP Install directory>/sbin/idsslapd -I <instance name>

- **2.** Connect to IBM TDS using the LDAP browser, for instructions see Section 15.5, "Connecting to IBM TDS Using the LDAP Browser".
- 3. Select: dc=<domain>, dc=<ext>. Click the LDIF menu, and select Import (Figure 15–14).

LDAP Browser\Editor v2.8.2 -		
<u>File Edit View LDIF Help</u>		
🖳 🛷 🔗 👭 Export 🐟 📝	前 齿 金	
Import	Attribute dc objectClass objectClass description o	Value EXAMPLE top domain This entry created automatically correspon example
Ready.		

Figure 15–14 LDAP Browser\Editor - Import

**4.** Click the **Add only** button (Figure 15–15).

Figure 15–15 LDIF Import

🕌 LDIF Im	port 💽 🖃 🔤 🔀	
LDIF File:		
- Import n	nethod	
Add only		
🔾 Update only		
🔾 Update/Add		
	Import Cancel	

5. Browse to the LDIF file <cs\_install\_dir/ldap>/tivolildap.ldif (Figure 15–16) and click OK.

Figure 15–16 tivolildap.ldif

🕌 Choose file		
Look <u>I</u> n: 🗖 I	dap	
🗋 tivolildap.l	lif	
File Name:	tiyolildan Idif	
Files of <u>T</u> ype:	LDIF files (Idif)	
		UK Cancel

6. Click Import.

**Note:** The root entry will fail to import because it already exists, but all others will import successfully.

**7.** Click **OK** (Figure 15–17).

Figure 15–17 LDIF Import - Finished

🛃 LDIF Import	• • • • • •
i Finished Read 52 total entries. 5	1 sucessfuly importe
ОК	

### Importing an LDIF file (Configuration Tool)

1. Convert the LDIF file to UNIX format using the dos2unix utility.

- Linux: dos2unix <tivolildap.ldif>
- Solaris: mv tivolildap.ldif > tivolildap2.ldif dos2unix tivoli.ldap2.ldif > tivolildap.ldif
- **2.** Stop the IBM TDS instance:

<LDAP Install directory>/bin/ibmdirctl stop -h localhost -D cn=root -w <password for cn=root>

**3.** Start the IBM TDS instance configuration tool (your display must be set in order to continue with the import process):

<LDAP Install directory>/sbin/idsxcfg -I <name of instance>

4. Select Import LDIF data (Figure 15–18).

Figure 15–18 Path and Name of the LDIF File on the LDAP Server

Si IBM Tivoli Directory Server Configuration Tool		
<u>File H</u> elp		
Choose a task: © Overview Manage administrator DN Manage administrator password Configure database Manage changelog Manage suffixes Manage schema files Manage schema fil	Import LDIF data Enter the path and name of the LDIF file (on the LDAP server) fro Note: Before importing an LDIF file <u>Use this panel to import data to</u> Path and LDIF file name Remove trailing spaces in <b>Standard import</b> or <b>Buikload</b> Standard import Cata validation only Schema checking is done on the data, but the data is not added to the directory. Warning: To improve performance Buikload does not check the correctness of the data. Run <b>Data validation only</b> on the LDIF file before attempting buikload.	om which you want to import directory data. from an LDIF file into the database <sup>†</sup> task. Browse Buikload Use buikload for very large LDIF files. Buikload options Enable schema d <u>r</u> ecking Enable ACL checking Enable password golicy
	Start time Elapsed time	
	Task messages	

#### 5. Click Browse.

**6.** Browse to the LDIF file (Figure 15–19) you wish to import and click **OK**.

🐱 Browse	
Enter <u>p</u> ath or folder name: /u01/CS/WebSphere/cs75/	Idap
Filte <u>r</u> * V Folders	Files tivolildap.Idif
E <u>n</u> ter file name: tivolildap.ldif	
<u>O</u> K <u>U</u> pdate	<u>Cancel</u> Elp

Figure 15–19 Browse Dialog Box

7. Click Import (Figure 15–20).

#### Figure 15–20 Import Button

		$\mathbb{Q}$
Import LDIF data		
Enter the path and no Note: Before importin	ame of the LDIF file ( <b>on the LDAP server</b> ) fr ng an LDIF file you must add the correspond me	om which you want to import directory data. ing suffixes in the <b>Manage suffixes</b> task.
/u01/CS/WebSphere	e/cs75/ldap/tivolildap.ldif	Browse
Remove trailing s	paces in Standard import or Bulkload	
🧯 Standard import	⊖⊡ata <u>v</u> alidation only	GBulkload
	Schema checking is done on the data,	Use builkload for very large LDIF files.
	but the data is not added to the directory.	Bulkload options-
	Bulkload does not check the correctness	Enable schema checking
	of the data. Run <b>Data validation only</b> on the LDIE file before attempting bulkload	
		Chapte Act checking
		Enable password golicy
Start time	Elancad time	
Start inne		
Task messages		
		Cjear results
		import Stop Close Help ?

**8.** Click **OK** when the import is complete (Figure 15–21).

Figure 15–21 Information Dialog Box

Enter the path and name of the LDF file (on the LDAP serve) from which you want to import directory data. Note: Before importing an LDF file you must add the corresponding suffixes in the Manage suffixes task. Path and LDIF file name [AG01/C5/WebSphere/E375 //dap/thoilidap.tdif	Import LDIF data
Path and LDIF file/name  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and LDIF file before attempting buildood.  Path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and the drag to buildood for very large LDIF files  path and LDIF file before attempting buildood for very large LDIF files  path and LDIF file before attempting buildood for very large LDIF files  path and LDIF file before attempting buildood for very large LDIF files  path and LDIF file before attempting buildood for very large LDIF files  path and LDIF file before attempting buildood for very large LDIF files  path and LDIF file before attempting buildood for very large LDIF	Enter the path and name of the LDIF file ( <b>on the LDAP server</b> ) from which you want to import directory data. Note: Before importing an LDIF file you must add the corresponding suffixes in the <b>Manage suffixes</b> task.
Jud1/CS/WebSphere/cs75 /idap/twoliidap.ldt/       Browse.         Remove trailing spaces in Standard import or Bulkload       Bigkload         Schema checking is done on the data,       Bigkload         Schema checking is done on the data,       Bulkload for very large LDIF files.         Bulkload does not check the correctness of the data is not check the correctness of the data. Sun Data validation only on the LDIF file before attempting bulkload.       Bulkload for very large LDIF files.         Start time 10/16/05 2:15 FM       CLPCFG0921 Task completed.       Broble schema dgekling reales schema 32768 and it is modified to the prescribed minimum is 500.         CLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.       CLPCTL1211 Maximum Stack Size(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         CLPCTL121 Maximum Virual Memory(Kbytes) soft ulimit for the process was 32768 and the some dine schema definition.         CLPCTL121 Maximum Virual Memory(Kbytes) soft ulimit for the process was 32768 and tils modified to the prescribed minimum 65536.         CLPCTL121 Maximum Virual Memory Advisus set to false.         GLPCRD00221 The database plugin is successfully loaded from libback-config a.         GLPRD0032E Entry Oc =FATW Voc =	Path and LDIF file name
Remove trailing spaces in Standard import or Bulkload         Import       Operation only         Schema checking is done on the data, but the directory       Operation only         Schema checking is done on the data, but the directory       Dis bulkload for very large LDIF files.         Bulkload options       Prable schema digecking         Tracket were digecking       Prable schema digecking         Tracket were digecking       Prable schema digecking         Tracket were digecking       Prable schema digecking         Total control       Pression were digecking         <	/u01/CS/WebSphere/cs75/Idap/tivolildap.idif Browse
Stantiardu minort © Ceta validation miny of is buildoad Stantiardu minort © Ceta validation only of the data, but the data is not added to the directory. Warming To improve performance Buildoad options of the data. Run Data validation only of the data Run Data validation only of the data Run Data validation only of the data Run Data validation. Run Data validation only of the data Run Data validation only of the data Run Data Validation only of the data Run Data Validation. Run Data Validation only of the data Run Data Validation. Run Data Validation Process is 2000 and the prescribed minimum is 1048576. CloChMO321 The database plugin is successfully loaded from libback-config.a. CloPROH0371 Restricted Aniwre, dc=com validates the schema definition. ClPRDB002W Ididatio: 79 entries have been successfully adde	
Gendard Import Octaged dation only     Schema checking is some on the data, but the data is not added to the directory.     Warning: To improve performance     Buikload does not check the correctness     of the data. Run Data validation only on     the Lobi File before attempting buikload.     Use buikload does not check the correctness     of the data. Run Data validation only on     the Lobi File before attempting buikload.     Use buikload does not check the correctness     ord points     CLPCFG0921 Task completed.     Start time     To/16/08 2:15 PM     OK     CLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.     GLPCTL1221 Maximum Open Files soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.     GLPCTL121 Maximum Nack Size(Khytes) soft ulimit for the process is 1-1 and the prescribed minimum 65536.     GLPCNL1371 Restricted Access to the replication topology is set to false.     GLPCN0005E The attribute dc is not allowed for entry dx =fawire, dc =com.     GLPCPB1071 The suffix entry DC=FATWIRE, DC=COM has been created.     GLPCPB002W ldif2db: 79 entries have been successfully added out of 80 attempted.     Import 3002 Close Help ?	Cremove training spaces in standard import of Burkioau
Schema checking is done on the data, but the data is not added to the directory. Buikload dop tions Buikload dop tions Buikload dop tions Buikload dop tions Buikload dop tions Buikload dop tions Brable schema digeking Interbild wide price attempting buikload. Buikload dop tions Brable schema digeking Interbild wide attempting buikload. Buikload dop tions Brable schema digeking Interbild wide attempting buikload. Buikload dop tions Buikload dop tions Buikl	ାକ୍ତିSgandard Import ୍ Data galidation only ୍ େ Bujkload
Warning: To improve performance Bulkload does not check the correctness of the data. Run Data validation only       Eukload options         Enclose so the data. Run Data validation only       Enclose scheme digeking         Task messages       Information         CLPCFL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.       CLPCTL1221 Maximum Open Files soft ulimit for the process was 32768 and it is modified to the prescribed minimum 262144.         GLPCTL1211 Maximum Physical Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576.       GLPCTL1211 Maximum Stack Size(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576.         GLPCN11321 Maximum Virtual Memory(Kbytes) soft and limit for the process is -1 and the prescribed minimum is 1048576.       GLPCN11321 Maximum Virtual Memory(Kbytes) soft and limit for the process is -1 and the prescribed minimum is 1048576.         GLPCN11321 Maximum Virtual Memory(Kbytes) soft alimit for the process is -1 and the prescribed minimum is 1048576.       GLPCN0092 The data base plugin is successfully loaded form libback-config.a.         GLPRDB053E Entry dc =fatwire, dc = com violates the schema definition.       GLPRDB0022W lidif2db: 79 entries have been successfully added out of 80 attempted.         Clear results       Import       3002       Close       Heip ?	Schema checking is done on the data, Use builkload for very large LDIF files.
Bulkload does not check the correctness of the data. Run Data validation only on the LDIF file before attempting bulkload. Start time 10/16/08 2:15 PM Task messages GLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500. GLPCTL1221 Maximum Open Files soft ulimit for the process vas 32768 and it is modified to the prescribed minimum 262144. GLPCTL1211 Maximum Physical Memory(Kbytes) soft ulimit for the process vas 32768 and it is modified to the prescribed minimum 65536. GLPCTL1211 Maximum Virual Memory(Kbytes) soft ulimit for the process vas 32768 and it is modified to the prescribed minimum 65536. GLPCTL1211 Maximum Virual Memory(Kbytes) soft ulimit for the process vas 32768 and it is modified to the prescribed minimum 65536. GLPCTL1211 Maximum Virual Memory(Kbytes) soft ulimit for the process vas 32768 and it is modified to the prescribed minimum 65536. GLPCN00221 The database plugin is successfully loaded from libback-config.a. GLPRDN053E Entry dc=fatwire, dc=com violates the schema definition. GLPRDB053E Entry dc=fatwire, dc=com violates the schema definition. GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted. Clear results Clear results Clear results Clear end the prescribed minimum 2000 Close Help ?	Warning: To improve performance Bulkload options
Interpretendent       District valuation only only only only only only only on	Bulkload does not check the correctness
Start time       Information       Image: ClPCFG0921 Task completed.         10/16/08 2:15 PM       Image: ClPCFL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.         GLPCTL121 Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Stack Size(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576.         GLPCDL217 The database plugin is successfully loaded from libback-config.a.         GLPRDB053E Entry dc-fatwire, dc-com.         GLPRDB053E Entry dc-fatwire, dc-com.         GLPRDB071 The suffix entry DC-FAT WIRE, DC-COM has been created.         GLPRDB02W Idif2db: 79 entries have been successfully added out of 80 attempted.	the LDIF file before attempting bulkload. I checking
Start time       OK         10/16/08 2:15 PM       OK         Task messages       GLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.         GLPCTL1221 Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Stack Size(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum 65536.         GLPCOM0221 The database plugin is successfully loaded from libback-config.a.         GLPCM003E The attribute dc is not allowed for entry dc=fatwire, dc=com.         GLPRDB053E Entry dc=fatwire, dc=com violates the schema definition.         GLPRDB071 The suffix entry DC=FAT WIRE, DC=COM has been created.         GLPRDB02W Idif2db: 79 entries have been successfully added out of 80 attempted.	M Information
Start time  10/16/08 2:15 PM  Task messages  GLPCTL122! Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500. GLPCTL121! Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536. GLPCTL121! Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576. GLPCDL121! Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576. GLPCOL21! The database plugin is successfully loaded from libback-config.a. GLPRDL37! Restricted Access to the replication topology is set to false. GLPRDB053E Entry dc=fatwire,dc=com violates the schema definition. GLPRDB07! The suffix entry DC=FAT WIRE,DC=COM has been created. GLPRDB02W Idif2db: 79 entries have been successfully added out of 80 attempted.  Clear results  Clear results	GLPCFG092I Task completed.
10/16/08 2:15 PM       UK         Task messages       GLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.         GLPCTL1211 Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL1211 Maximum Virtual Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL1211 Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576.         GLPCOM0221 The database plugin is successfully loaded from libback-config.a.         GLPRDI371 Restricted Access to the replication topology is set to false.         GLPRD003E Entry dc =fatwire, dc = com.         GLPRDB053E Entry dc =fatwire, dc = com.         GLPRDB071 The suffix entry DC =FAT WIRE, DC=COM has been created.         GLPRDB02W Idif2db: 79 entries have been successfully added out of 80 attempted.	Start time
Task messages         GLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.         GLPCTL121 Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Virtual Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum 65536.         GLPCOM0221 The database plugin is successfully loaded from libback-config.a.         GLPRDI371 Restricted Access to the replication topology is set to false.         GLPRDB053E Entry dc =fatwire, dc = com.         GLPRDB053E Entry dc =fatwire, dc = com.         GLPRDB071 The suffix entry DC =FAT WIRE, DC =COM has been created.         GLPRDB02W Idif2db: 79 entries have been successfully added out of 80 attempted.         Clear results         Import       Stop	10/16/08 2:15 PM
GLPCTL1221 Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.         GLPCTL121 II Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 II Maximum Stack SI2e(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 II Maximum Virtual Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL121 Maximum Virtual Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCOM0221 The database plugin is successfully loaded from libback-config.a.         GLPRPL1371 Restricted Access to the replication topology is set to false.         GLPRDB053E Entry dc = fatwire, dc = com.         GLPRDB071 The suffix entry DC = FAT WIRE, DC = COM has been created.         GLPRDB02W Idif2db: 79 entries have been successfully added out of 80 attempted.         Clear results         Import       Stop	Task messages
GLPCTL1211 Maximum Physical Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 262144.         GLPCTL1211 Maximum Stack Size(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL1191 Maximum Virtual Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCTL131 Maximum Virtual Memory(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65536.         GLPCL021 The database plugin is successfully loaded from libback-config.a.         GLPRC1371 Restricted Access to the replication topology is set to false.         GLPCD0038 The attribute dc is not allowed for entry dc=fatwire, dc=com.         GLPRD0538 Entry dc=fatwire, dc=com violates the schema definition.         GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted.         Clear results         Import       Stop	GLPCTL122I Maximum Open Files soft ulimit for the process is 2000 and the prescribed minimum is 500.
GLPCTL119I Maximum Virtual Memory(Kbytes) soft ulimit for the process is – 1 and the prescribed minimum is 1048576. GLPCOM022I The database plugin is successfully loaded from libback-config.a. GLPRC137I Restricted Access to the replication topology is set to false. GLPCOM09E The attribute dc is not allowed for entry dc=fatwire, dc=com. GLPRDB053E Entry dc=fatwire, dc=com violates the schema definition. GLPRDB071 The suffix entry DC=FATWIRE, DC=COM has been created. GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted. Clear results Clear results	GPC11211 Maximum Physical MemoryKbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 252144. GPC11211 Maximum Stark Size(Kbytes) soft ulimit for the process was 32768 and it is modified to the prescribed minimum 65236
GLPCOM0221 The database plugin is successfully loaded from libback-config.a.         GLPRPL1371 Restricted Access to the replication topology is set to false.         GLPCM009E The attribute dc is not allowed for entry dc=fatwire, dc=com.         GLPRDB053E Entry dc=fatwire, dc=com violates the schema definition.         GLPRDB071 The suffx entry DC=FATWIRE, DC=COM has been created.         GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted.         Import       Stop         Clear results	GLPCTL119I Maximum Virtual Memory(Kbytes) soft ulimit for the process is -1 and the prescribed minimum is 1048576.
CLPCMOOSE The attribute do is not allowed for entry dc = fatwire, dc = com. GLPRDB053E Entry dc = fatwire, dc = com violates the schema definition. GLPRDB053E Entry dc = fatwire, dc = com violates the schema definition. GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted. Clear results Import	GLPCOM0221 The database plugin is successfully loaded from libback-config.a.
GLPRDB053E Entry dc=fatwire,dc=com violates the schema definition. GLPRDB107I The suffix entry DC=FATWIRE,DC=COM has been created. GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted. Clear results Import Stop Close Help ?	GLPCMO99E The attribute do is not allowed for entry dc=fatwire, dc=com.
GLPRDB107/The suffix entry DC=FAT WIRE, DC=COM has been created.         GLPRDB002W Idif2db: 79 entries have been successfully added out of 80 attempted.         Clear results         Import       Stop         Close       Heip ?	GLPRDB053E Entry dc=fatwire, dc=com violates the schema definition.
Clear results	GLPRDB1071 The suffix entry DC=FATWIRE,DC=COM has been created.
Clear results Import Stop Close Help ?	de hobbel whareau. Is entres nove been saccessant adaed dat di bo anempeo.
Import Stop Close Help ?	Clear results
Import Stop Close Help ?	
	Import Stop Close Help ?

### Adding Users and ACLs using an LDIF file

1. Create a blank LDIF file (for example, addstuff.ldif).

2. For each user that you wish to add, add the following to the LDIF file:

```
dn: uid=<User_Name>,cn=users,dc=<domain>,dc=<ext>
userPassword: <password>
uid: <User_Name>
objectClass: top
objectClass: person
objectClass: organizationalPerson
objectClass: inetOrgPerson
sn: <User_Name>
cn: <User_Name>
```

**3.** For each ACL you wish to add, add the following to the LDIF file:

```
dn: cn=<ACL Name>,cn=groups,dc=<domain>,dc=<ext>
objectClass: top
objectClass: groupOfNames
member: uid=<User_Name 1>,cn=users,dc=<domain>,dc=<ext>
member: uid=<User_Name 2>,cn=users,dc=<domain>,dc=<ext>
.
.
.
member: uid=<User_Name n>,cn=users,dc=<domain>,dc=<ext>
```

4. Import the LDIF file by following the steps in Section , "Importing an LDIF file (LDAP Browser)" or Section , "Importing an LDIF file (Configuration Tool)."

### 15.5 Connecting to IBM TDS Using the LDAP Browser

- 1. Download and install the LDAP browser.
- 2. Start the LDAP browser:

./lbe.sh

- **3.** Fill in the required fields:
  - Host: Enter the IP or hostname of IBM TDS.

**Note:** The default port which IBM TDS runs on is 389.

- **Port**: Enter the port on which IBM TDS is running.
- **Base DN**: Enter the user-defined suffix that was entered during the installation of IBM TDS (see step 8 for more information about the User-defined suffix).
- Anonymous bind: Deselect the check box
- User DN: Enter cn=root
- Password: Enter the password for cn=root (Figure 15–22).

Figure 15–22 Edit Session Dialog Box

🕌 Edit Ses	sion	
Name	Connection Options	
- Host Info	)	
Host	192.0.2.1	Port: 389 Version: 3 🕶
Base DN:	dc=example,dc=com	<b>~</b>
	Fetch DNs	SSL Anonymous bind
- User Info	I ————	
User DN	cn=root	🔄 append base DN
Password	•••••	
		Save Cancel

4. Click Save (Figure 15–23).

Figure 15–23 LDAP Browser\Editor

LDAP Browser\Editor v2.8.2		
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>L</u> DIF <u>H</u> elp		
😐 🖗 🗶 🗅 🔏 🖗	? 面 备 金	
☐ dc=example,dc=com ☐ cn = users ☐ cn = groups	Attribute Value	
Ready. 2 entries returned.		U

# **Installing Microsoft Active Directory 2012**

This chapter provides instructions for configuring the Microsoft Windows Server 2012 system settings, configuring network settings, installing Microsoft Windows Active Directory 2012, checking and changing group policies, and connecting to the Active Directory Server using an LDAP browser.

This chapter contains the following sections:

- Section 16.1, "Configuring OS System Settings"
- Section 16.2, "Configuring the Network Settings"
- Section 16.3, "Installing Active Directory 2012"
- Section 16.4, "Checking Group Policies"
- Section 16.5, "Changing Group Policies"
- Section 16.6, "Connecting to Active Directory Server Using an LDAP Browser"

### 16.1 Configuring OS System Settings

Follow these steps to configure the OS system settings:

- 1. Install Windows Server 2012 (any Windows server except Web).
- **2.** When the installation is complete, leave the installation disc in the drive, you will need it to complete the installation of Active Directory Server.
- **3.** Set the computer name and DNS suffix.
- **4.** Open the System Properties dialog (Figure 16–1), and select **Advanced system settings**.

Figure 16–1 Windows Server 2012 Control Panel: System

	Sy	rstem			_ □	x
🔄 🔄 🔹 🕇 🕎 🕨 Cont	rol Panel 🔸 System and Security 🔸 Sy	/stem v	Ç	Search Control Pa	anel	Q
Control Panel Home	View basic information	about your compute	r			? ^
🛞 Device Manager	Windows edition					- 1
🛞 Remote settings	Windows Server 2012 Stan	dard		-		
😵 Advanced system settings	© 2012 Microsoft Corpora reserved.	tion. All rights	/inc	lows Serv	er 2017	2
	System					_
	Processor:	Intel(R) Core(TM) i5-2400	CPU @	3.10GHz 3.06 GHz		-
	Installed memory (RAM):	4.00 GB				
	System type:	64-bit Operating System, 3	x64-bas	sed processor		
	Pen and Touch:	No Pen or Touch Input is	availab	le for this Display		
	Computer name, domain, and	workgroup settings				-
	Computer name:	WIN-PLSUQ2EF3JN		🛞 Cł	hange settings	5
See also	Full computer name:	WIN-PLSUQ2EF3JN				
Action Center	Computer description:					
Windows Update	Workgroup:	WORKGROUP				
						~

**5.** On the System Properties dialog, select the **Computer Name** tab (Figure 16–2) and click **Change**.

Figure 16–2 System Properties

	System Properties	x
Computer Name Hardwa	are Advanced Remote	
Windows use: on the networ	s the following information to identify your computer k.	
Computer description:		
	For example: "IIS Production Server" or "Accounting Server".	
Full computer name:	WIN-PLSUQ2EF3JN	
Workgroup:	WORKGROUP	
To rename this compute workgroup, click Change	r or change its domain or Change e.	]
	OK Cancel Apply	

**6.** On the Computer Name/Domain Changes dialog (Figure 16–3), complete the following fields:

- **Computer name**: Enter the name you wish to designated for your computer. Make a record of this name.
- **Member of**: Select the **Workgroup** option, then enter a unique workgroup name. Make a record of this name.

Figure 16–3 Computer Name/Domain Changes

Computer Name/Domain Changes	:
You can change the name and the membership of this computer. Changes might affect access to network resources.	
Computer name:	
WS20	]
Full computer name: WS2012 More	
O Domain:	
Workgroup:     AD2012	
OK Cancel	

- 7. Click More.
- **8.** On the DNS Suffix and NetBIOS Computer Name dialog (Figure 16–4), complete the following fields:
  - Primary DNS suffix of this computer: Enter the DNS suffix of your computer. Make a record of this suffix.
  - Change Primary DNS Suffix when domain membership changes: If this option is selected, deselect it.

Figure 16–4 DNS Suffix and NetBIOS Computer Name

DNS Suffix and NetBIOS Computer Name
Primary DNS suffix of this computer:
sites.example.com
Change primary DNS suffix when domain membership changes
NetBIOS computer name: WS20
This name is used for interoperability with older computers and services.
OK Cancel

- **9.** Click **OK** to close the dialog.
- **10.** On the Computer Name/Domain Changes dialog (Figure 16–5), click **OK**.



Figure 16–5 Computer Name/Domain Changes

11. On the restart request dialog (Figure 16-6), click Restart Later.

Figure 16–6 Restart Dialog



### 16.2 Configuring the Network Settings

Follow these steps to configure the network settings:

1. Open the Network and Sharing Center dialog (Figure 16–7).

Figure 16–7 Network and Sharing Center



- **2.** Select the Network Connection to edit (if you have more than one ipconfig result, make sure to select the correct connection).
- **3.** On the Ethernet Status dialog (Figure 16–8) of your selected network, click **Properties**.

9	Ethernet Status	x
General		
Connection IPv4 Connectivity: IPv6 Connectivity: Media State: Duration: Speed: Details	No Internet access No network access Enabled 00:24:34 1.0 Gbps	_
Activity		-
	Sent — Received	
Bytes:	357 60	
Properties	Pisable Diagnose	
	Close	

Figure 16–8 Ethernet Status

**4.** On the Ethernet Properties dialog (Figure 16–9), select **Internet Protocol Version 4** (TCP/Iv4).

Ethernet Properties
Networking
Connect using:
Intel(R) PRO/1000 MT Network Connection
Configure
This connection uses the following items:
<ul> <li>Client for Microsoft Networks</li> <li>QoS Packet Scheduler</li> <li>File and Printer Sharing for Microsoft Networks</li> <li>Microsoft Network Adapter Multiplexor Protocol</li> <li>Link-Layer Topology Discovery Mapper I/O Driver</li> <li>Link-Layer Topology Discovery Responder</li> <li>Intermet Protocol Version 6 (TCP/IPv6)</li> <li>Intermet Protocol Version 4 (TCP/IPv4)</li> </ul>
Install Uninstall Properties Description Transmission Control Protocol/Internet Protocol. The default utility of the transmission control states of the t
across diverse interconnected networks.
OK Cancel

Figure 16–9 Ethernet Properties

- **5.** Set the IP address to an unused, static IP address. Set the preferred DNS server to your computer's IP address.
- 6. Click Advanced.
- **7.** On the Advanced TCP/IP Settings dialog (Figure 16–10), select the DNS tab and complete the following tasks:
  - Enable the **Append primary and connection specific DNS suffixes** option.
  - Enable the **Append parent suffixes of the primary DNS suffix** option.

Advanced TCP/IP Settings ? X
IP Settings DNS WINS
DNS server addresses, in order of use:
127.0.0.1
•
Add Edit Remove
The following three settings are applied to all connections with TCP/IP enabled. For resolution of unqualified names:
Append primary and connection specific DNS suffixes
Append parent suffixes of the primary DNS suffix
Append these DNS suffixes (in order):      t
Add Edit Remove
DNS suffix for this connection:
Register this connection's addresses in DNS
OK Cancel

Figure 16–10 Advanced TCP/IP Settings

- 8. Click **OK** to close the Advanced TCP/IP Settings dialog.
- 9. Click OK to close the Ethernet Properties dialog.
- **10.** Close the Network Connections dialog.
- **11.** Restart the machine.

### 16.3 Installing Active Directory 2012

Follow these steps to install Active Directory 2012.

1. From the Server Manager Dashboard (Figure 16–11) click Add roles and features.



Ē.		Server Manager		
Server M	anager 🔸 Dashboard		🕶 🗭   🚩 Manage Tool	ds View Help
🗰 Dashboard	WELCOME TO SERVER MANAGER			
Local Server     All Servers     File and Storage Services	1 Conf	igure this local server		
	2 Ad	ld roles and features		
	3 Ad	ld other servers to manage		
	WHAT'S NEW 4 Cre	eate a server group		
	LEARN MORE			Hide
l≩	ROLES AND SERVER GROUPS Roles: 1   Server groups: 1   Servers total	:1		
	File and Storage 1	Local Server 1	All Servers 1	
	<ol> <li>Manageability</li> </ol>	Manageability	Manageability	
	Events	1 Events	1 Events	
	Performance BDA secults	4 Services	4 Services	
	DPA results	BPA results	BPA results	
		11/30/2012 10:30 AM	11/30/2012 10:30 AM	

**2.** On the Add Roles and Features Wizard, read the *Before you begin* information (Figure 16–12) and click **Next**.



Figure 16–12 Add Roles and Features Wizard: Before You Begin

**3.** On the Select Installation Type step (Figure 16–13), select the role-based or feature-based installation option and click **Next**.

Figure 16–13 Add Roles and Features Wizard: Select Installation Type

è		Add Roles and Features Wizard	_ <b>D</b> X
Sel	ect installation	type	DESTINATION SERVER WS2012.sites.oracle.com
Be	efore You Begin stallation Type	Select the installation type. You can install roles and features on a running physica machine, or on an offline virtual hard disk (VHD).	al computer or virtual
Se Se Fe Cc Re	erver Selection erver Roles eatures ponfirmation esults	<ul> <li>Role-based or feature-based installation Configure a single server by adding roles, role services, and features.</li> <li>Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to create a or session-based desktop deployment.</li> </ul>	virtual machine-based
		Partico N. co	
		< Previous Next > Ins	tall Cancel

**4.** On the Select Destination Server step (Figure 16–14), enable the **Select a server from the server pool** option, select your server, and click **Next**.

Figure 16–14 Add Roles and Features Wizard: Select Destination Server

<b>b</b>	Add Roles and Features Wizard
Select destinati	ON SETVER W52012.sites.oracle.com
Before You Begin	Select a server or a virtual hard disk on which to install roles and features.
Installation Type	Select a server from the server pool
Server Selection	○ Select a virtual hard disk
Server Roles	Server Pool
Features	
Confirmation	Filter:
Results	Name IP Address Operating System
	124sites.example.com 192.0.2.1 Microsoft Windows Server 2012 Standard
	1 Computer(s) found
	This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.
	< Previous Next > Install Cancel

**5.** On the Select Server Roles step (Figure 16–15), select the **Active Directory Domain Services** option and click **Next**.

2	Add Roles and Features Wizard	_ <b>D</b> X
Select server roles Before You Begin	Select one or more roles to install on the selected server.	DESTINATION SERVER WS2012 sites oracle.com
Installation Type	Roles	Description
Server Selection	Active Directory Certificate Services	Active Directory Domain Services
Server Roles	Active Directory Domain Services	(AD DS) stores information about objects on the network and makes
Features	Active Directory Federation Services	this information available to users
Confirmation	Active Directory Lightweight Directory Services	and network administrators. AD DS
Results	Active Directory Rights Management Services	network users access to permitted
	Application Server	resources anywhere on the network
	DHCP Server	through a single logon process.
	DNS Server	
	Fax Server	
	File And Storage Services (Installed)	
	Hyper-V     Network Deline and Assess Services	
	Retwork Policy and Access Services	
	Remote Desktop Services	
	v	
	< Previous Next	> Install Cancel

Figure 16–15 Add Roles and Features Wizard: Select Server Roles

**6.** On the Add Roles and Features Wizard notice (Figure 16–16), click **Add Features** to install roles, services, and features that are needed by Active Directory Domain Services.

Figure 16–16 Add Roles and Features Wizard: Notice



 On the Select Features step (Figure 16–17), enable the .NET Framework 3.5 Features option (if it is not already enabled). Active Directory 2012 requires .NET Framework 3.5 be installed. Click Next.

<b>a</b>	Add Roles and Features Wizard	_ <b>□</b> ×
Select features		DESTINATION SERVER WS2012.sites.oracle.com
Before You Begin	Select one or more features to install on the selected server.	
Installation Type Server Selection	Features           Image: NET Framework 3.5 Features	Description .NET Framework 3.5 combines the power of the NET Framework 2.0
Server Roles	Image: Installed Installed Installed     Image: Installed Ins	APIs with new technologies for
AD DS	Background Intelligent Transfer Service (BITS)	building applications that offer appealing user interfaces, protect
Confirmation	BitLocker Drive Encryption BitLocker Network Unlock	your customers' personal identity information, enable seamless and
Results	BranchCache Client for NFS	secure communication, and provide the ability to model a range of
Ŀ\$		business processes.
	< Previous Next	> Install Cancel

8. On the Active Directory Domain Services step (Figure 16–18), click Next.

2	Add Roles and Features Wizard	_ <b>D</b> X
Confirmation Results	Add Roles and Features Wizard Comain Services Active Directory Domain Services (AD DS) stores information about users, component on the network. AD DS helps administrators securely manage this information sharing and collaboration between users. AD DS is also required for directory-such as Microsoft Exchange Server and for other Windows Server technologies Things to note: • To help ensure that users can still log on to the network in the case of a serv minimum of two domain controllers for a domain. • AD DS requires a DNS server to be installed on the network. If you do not he installed, you will be prompted to install the DNS Server role on this machine • Installing AD DS will also install the DFS Namespaces, DFS Replication, and F	DESTINATION SERVER WS2012 sites oracle.com puters, and other devices and facilitates resource enabled applications such as Group Policy. er outage, install a ave a DNS server e. iile Replication services
	which are required by AD DS.  Learn more about AD DS  < Previous Next >	Install Cancel

Figure 16–18 Add Roles and Features Wizard: Active Directory Domain Services

**9.** On the Confirm Installation Selections step (Figure 16–19), review you selections, and click **Install** 

Figure 16–19 Add Roles and Features Wizard: Confirm Installation Selections

<b>a</b>	Add Roles and Features Wizard	_ <b>D</b> X
Confirm installation	on selections	DESTINATION SERVER WS2012.sites.oracle.com
Before You Begin	To install the following roles, role services, or features on selected server, click l	nstall.
Installation Type	Restart the destination server automatically if required	
Server Selection Server Roles Features	Optional features (such as administration tools) might be displayed on this pag been selected automatically. If you do not want to install these optional feature their check boxes.	e because they have is, click Previous to clear
AD DS	Active Directory Domain Services	
Confirmation	Group Policy Management	
Results	Remote Server Administration Tools Role Administration Tools AD DS and AD LDS Tools Active Directory module for Windows PowerShell AD DS Tools Active Directory Administrative Center AD DS Snap-Ins and Command-Line Tools	
	Export configuration settings Specify an alternate source path	
	< Previous Next >	Install Cancel

Wait for successful completion of the installation (Figure 16–20). Do not close the wizard. On successful completion, click the Promote this server to a domain controller link in the wizard. This will open Active Directory Domain Services Configuration Wizard.

Figure 16–20 Add Roles and Features Wizard: Promote This Server to a Domain Controller

<b>B</b>	Add Roles and Features Wizard	-		x
Installation progre	ESS DESTIN WS2012.	IATION sites.or	l SERV acle.cc	ER om
Before You Begin	View installation progress			
Installation Type	Feature installation			
Server Selection				
Server Roles	Configuration required. Installation succeeded on WS2012.sites.oracle.com.			
Features	Active Directory Domain Services			^
AD DS	Additional steps are required to make this machine a domain controller.			
Confirmation	Promote this server to a domain controller			
Results	Group Policy Management Remote Server Administration Tools Role Administration Tools AD DS and AD LDS Tools Active Directory module for Windows PowerShell AD DS Tools Active Directory Administrative Center AD DS Snap-Ins and Command-Line Tools You can close this wizard without interrupting running tasks. View task progress o page again by clicking Notifications in the command bar, and then Task Details. Export configuration settings	r oper	1 this	< III
	< Previous Next > Close	C	ancel	

**11.** On the Deployment Configuration screen (Figure 16–21) of the Active Directory Domain Services Configuration Wizard, select the **Add a new forest** option and specify the Root domain name. Click **Next**.

Figure 16–21	Active Directory Domain Services Configuration Wizard: Deployment Configuration (Add a
New Forest)	

<b>B</b>	Active Directory Domain Services (	Configuration Wizard	<b>– –</b> X
Deployment Configuration Domain Controller Options Additional Options Paths Review Options Prerequisites Check Installation Results	Active Directory Domain Services ( figuration	Configuration Wizard ag domain est operation :sites.example.com	TARGET SERVER WS2012.sites.oracle.com
	More about deployment configurations	evious Next >	Install Cancel

- **12.** On the Domain Controller Options step (Figure 16–22), complete the following tasks:
  - For *Forest functional level*, select **Windows Server 2012**.
  - For *Domain functional level*, select **Windows Server 2012**.
  - For Specify domain controller capabilities, enable the Domain Name System (DNS) Server option.
  - Provide a DSRM password.
  - Click Next.

If you have a DHCP based adapter, it will assign static IP addresses to all physical adapters to continue with the installation. After the installation completes you can change any DHCP adapter back

<b>è</b>	Active Directory Domain Services	Configuration Wizard	_ <b>□</b> ×
Domain Controlle	r Options		TARGET SERVER WS2012.sites.oracle.com
Deployment Configuration Domain Controller Options DNS Options Additional Options Paths Review Options Prerequisites Check Installation Results	Select functional level of the new fores Forest functional level: Domain functional level: Specify domain controller capabilities ODmain Name System (DNS) serve Global Catalog (GC) Read only domain controller (ROD) Type the Directory Services Restore Me Password: Confirm password:	t and root domain Windows Server 2012 Windows Server 2012 r c) bde (DSRM) password •••••••	▼ ▼
	More about domain controller options		
	<	Previous Next >	Install Cancel

Figure 16–22 Active Directory Domain Services Configuration Wizard: Domain Controller Options

**13.** On the DNS Options step (Figure 16–23), a warning message will be displayed if the DNS zone you are creating does not have an authoritative parent zone. Click **Next**.

<b>a</b>	Active Directory Domain Services Configuration Wizard
DNS Options	TARGET SERVER WS2012.sites.oracle.com
A delegation for this DNS	server cannot be created because the authoritative parent zone cannot be found Show more
Deployment Configuration Domain Controller Options DNS Options Additional Options Paths Review Options Prerequisites Check Installation Results	Specify DNS delegation options
	More about DNS delegation
	< Previous Next > Install Cancel

Figure 16–23 Active Directory Domain Services Configuration Wizard: DNS Options

14. On the DNS Options notice (Figure 16–24), click OK.

Figure 16–24 DNS Options Notice



15. Verify the NetBIOS name on the Additional Options step (Figure 16–25).

a	Active Directory Domain Services Configuration Wizard
Additional Option	TARGET SERVER WS2012.sites.oracle.com
Deployment Configuration Domain Controller Options DNS Options	Verify the NetBIOS name assigned to the domain and change it if necessary The NetBIOS domain name: SITES
Additional Options Paths Review Options	
Prerequisites Check Installation	
Results	
	More about additional options
	Previous Next > Install Cancel

Figure 16–25 Active Directory Domain Services Configuration Wizard: Additional Options

**16.** On the Paths step (Figure 16–26), accept the defaults and click Next.

Figure 16–26 Active Directory Domain Services Configuration Wizard: Paths

a	Active Directory Domain Services	Configuration Wizard	_ 🗆 X
Paths			TARGET SERVER WS2012.sites.oracle.com
Deployment Configuration Domain Controller Options DNS Options Additional Options Paths Review Options Prerequisites Check Installation Results	Specify the location of the AD DS datab Database folder: Log files folder: SYSVOL folder:	ase, log files, and SYSVOL C:\Windows\NTDS C:\Windows\NTDS C:\Windows\SYSVOL	511 512 513
	More about Active Directory paths		
	< Pr	revious Next >	Install Cancel

- 17. On the Review Options step (Figure 16–27), complete the following tasks:
  - Review you settings.
  - Export your setting to script.
  - Click Next.

Figure 16–27 Active Directory Domain Services Configuration Wizard: Review Options

2	Active Directory Domain Services Configuration Wizard	x
Review Options	TARGET SEF WS2012.sites.oracle.	RVER .com
Deployment Configuration Domain Controller Options DNS Options	Review your selections: Configure this server as the first Active Directory domain controller in a new forest. The new domain name is "sites.example.com". This is also the name of the new forest.	^
Additional Options Paths Review Options	The NetBIOS name of the domain: SITES Forest Functional Level: Windows Server 2012	=
Prerequisites Check Installation Results	Domain Functional Level: Windows Server 2012 Additional Options:	
	DNS Server: Yes Create DNS Delegation: No	~
k}	These settings can be exported to a Windows PowerShell script to automate additional installations More about installation options	t
	< Previous Next > Install Cance	:

**18.** Make sure all prerequisite checks (Figure 16–28) pass successfully and review the results. On successful completion of the prerequisite checks, click **Install**.



Figure 16–28 Active Directory Domain Services Configuration Wizard: Prerequisites Check Results

**19.** On the Prerequisites Check success notice (Figure 16–29), click **OK**.

Figure 16–29 Prerequisites Check Successful Confirmation



20. After the system has completed installation, then reboot the system.

## 16.4 Checking Group Policies

Follow these steps to check group policies:

1. Execute gpmc.msc from the Run dialog (Figure 16–30).
Figure 16–30 Run Dialog



**2.** The Group Policy Management utility opens (Figure 16–31).

Figure 16–31 Group Policy Management

<u>R</u>	Group Policy Management	_ <b>D</b> X
🔜 File Action View Window	w Help	_ 8 ×
🦛 🔿 📊 🗔 🖛 🧼		
Group Policy Management           ▶         ▲           Forest: sites.example.com	Group Policy Management Contents Name Forest: sites.example.com	

**3.** Expand the navigation to **Domains**, then your domain, then **Default Domain Policy** (Figure 16–32).

<u>R</u>	Group Policy Mana	agement		_ 🗆 X
🖼 File Action View Windo	w Help			_ 8 ×
🗢 🔿 🖄 🛅 🛍 🗙				
oup Policy Management	Default Domain Policy			
Forest: sites.example.com	Scope Details Settings Delegation Status			
A 📑 sites example.com	Links			
Default Domain Policy	Display links in this location: sites.example	e.com		~
Domain Controllers	The following sites, domains, and OUs are linked to t	his GPO:		
⊿ Group Policy Objects	Location	Enforced Link	Enabled Path	
Default Domain Cor	🚔 sites.example.com	No Yes	sites.example.c	om
MMI Eilters				
Starter GPOs				
🛱 Sites				
👸 Group Policy Modeling				
🕞 Group Policy Results	Security Filtering			
	The settings in this GPO can only apply to the follow	ng groups, users, and	computers:	
	Name			
	Authenticated Users			
		D		
	Add Remove	Properties		
	WMI Filtering			
	This GPO is linked to the following WMI filter:			
	<none></none>	¥ 0	)pen	
< III >				

Figure 16–32 Group Policy Management: Default Domain Policy

**4.** Select the **Settings** tab (Figure 16–33).



Figure 16–33 Group Policy Management: Settings Tab

**5.** Expand the **Security Settings** section (Figure 16–34), then the **Account Policy/Password Policy** section, by clicking **Show**.



Figure 16–34 Group Policy Management: Settings Tab

**6.** Review the Policy list. Set the **Password must meet complexity requirements** to **Disabled**. WebCenter Sites passwords do not meet these requirements.

### 16.5 Changing Group Policies

Follow these steps to change group policies:

 From the Group Policy Management utility (Figure 16–35), right-click on Default Domain Policy and select Edit. This will open the group policy Management Editor.

<u>.</u>	Group Policy Mana	gement Editor		- 🗆 X
File Action View Help				
🏟 📰 🖼 📝 🖬				
Default Domain Policy [WS20	🤳 Default Domain Policy [ w	S20.SITES.EXAMPLE.COM   PO	olicy	
Policies	Select an item to view its description	Name		
Preferences		👰 Computer Configuration		
Policies		% User Configuration		
Preferences				
	[			
	\Extended \Standard /			

Figure 16–35 Group Policy Management Editor

- 2. Expand the navigation to, Computer Configuration, then Policies, then Windows Settings, then Security Settings, then Account Settings, and then Password Policy.
- **3.** Right-click **Password must meet complexity requirements**, located on the right side of the screen (Figure 16–36), and select **Properties**.

<u>.</u>	Group Policy Management Editor	_ <b>D</b> X
File Action View Help		
🗢 🏟 🞽 📰 💥 🗒 🛃	?	
<ul> <li>Poputer Configuration</li> <li>Policies</li> <li>Software Settings</li> <li>Windows Settings</li> <li>Mame Resolution Rolicy</li> <li>Scripts (Startup/Shixdown</li> <li>Scripts (Startup/Shixdown</li> <li>Account Policies</li> <li>Account Policies</li> <li>Account Lockout P =</li> <li>Account Lockout P =</li> <li>Event Log</li> <li>Coal Policies</li> <li>Event Log</li> <li>System Services</li> <li>Registry</li> <li>Site System</li> <li>Wired Network (IEEE &amp;</li> <li>Windows Firewall with</li> <li>Network List Manager</li> <li>Wireless Network (IEEE</li> <li>Public Key Policies</li> <li>Software Restriction Pc</li> </ul>	Policy       P         Enforce password history       2         Maximum password age       4         Minimum password age       1         Minimum password length       7         Password must meet complexity requirements       E         Store passwords using reversible encryption       C	olicy Setting 4 passwords remembered 2 days days characters nabled Disabled
Network Access Protec		
	t	

Figure 16–36 Group Policy Management Editor

**4.** On the Security Policy Setting tab, select the **Disabled** option (Figure 16–37). Click **OK**.



Figure 16–37 Security Policy Setting

**5.** Click **OK** and close the Group Policy Management Editor and Group Policy Management utility.

The domain will no longer check for password complexity. WebCenter Sites default passwords can now be used. When WebCenter Sites is installed you can change the settings by clicking **Enabled** on Security Policy Setting to re-engage the security settings.

#### 16.6 Connecting to Active Directory Server Using an LDAP Browser

This section describes how to connect to Active Directory Server using an LDAP browser. Note that you cannot add groups, set passwords, or activate accounts using an LDAP browser.

- **1.** Open the LDAP browser.
- 2. Select the Connection tab.
- **3.** Provide the following information (Figure 16–38):
  - Host: localhost (if connecting remotely, enter the actual host name)
  - Base DN: <DNS\_suffix> (the part of the DNS name after the host name)
  - Anonymous bind: deselect
  - User DN: administrator@<DNS\_suffix>
  - Append base DN: deselect
  - Password: <ADS\_password>

Figure 16–38 Edit Session

٩	Edit Session X
Name	Connection Options
- Host Info	
Host:	localhost Port: 389 Version: 3 🕶
Base DN:	DC=sites,DC=example,DC=com
	Fetch DNs         SSL         Anonymous bind
User Info	
User DN	Administrator@sites.example.com
Password	: ••••••
	Save Cancel

- 4. Click Save.
- **5.** Show the default view on the LDAP tree.

# **Installing Microsoft Active Directory 2008**

This chapter includes the following sections:

- Section 17.1, "Installing Active Directory 2008"
- Section 17.2, "Configuring the Network Settings"
- Section 17.3, "Installing Active Directory 2008 Services"
- Section 17.4, "Installing Active Directory 2008 Installation Wizard"
- Section 17.5, "Checking Group Policies"
- Section 17.6, "Changing Group Policies"
- Section 17.7, "Connecting to ADS Using an LDAP Browser"

#### 17.1 Installing Active Directory 2008

- 1. Install the Operating System:
  - a. Install Windows Server 2008 (any Windows server except Web).
  - **b.** When the installation is complete, leave the installation disc in the drive, you will need it to complete the installation of ADS.
  - c. Set the Computer's Name and Suffix.
- **2.** Open the "System Properties" dialog box. Click **Start**, then right-click the computer icon.
- 3. In the "System" window select Advanced system settings (Figure 17-1).

🕎 System			
Control Panel • Syste	em	👻 🚱 Search	<u> 2</u>
<u>File Edit View T</u> ools <u>H</u> elp			
Tasks         Image: I	View basic information above Windows edition Windows Server® Standard Copyright © 2007 Microsoft Service Pack 1	ut your computer	•
	System — Processor: Memory (RAM): System type:	AMD Athlon(tm)64 X2 Dual Core Processor 4600+ 1 2.00 GB 64-bit Operating System	1.00 GHz
	Computer name, domain, and w	orkgroup settings	
	Computer name: Full computer name: Computer description: Workgroup:	windows2008sql2005sp2 windows2008sql2005sp2 windows2008sql2005sp2 51WEST	
<b>See also</b> Windows <u>U</u> pdate	Windows activation Windows is activated Product ID: 55041-222-011	6321-76958 《Change product <u>k</u> ey	earn more online

Figure 17–1 Advanced System Settings

4. Select the **Computer Name** tab (Figure 17–2), click **Change**.

9	System Properties		x			
	Computer Name Hardware Advanced Remote					
	Windows uses the following information to identify your computer on the network.					
	Computer description:	windows2008sql2005sp2				
		For example: "IIS Production Server" or "Accounting Server".				
	Full computer name:	windows2008sql2005sp2				
	Workgroup:	51WEST				
	To rename this computer workgroup, click Change	r or change its domain or Change				
		OK Cancel Apply				

Figure 17–2 System Properties Dialog Box

- 5. In the pop-up window that appears (Figure 17–3), fill in the following fields:
  - **Computer name**: Enter the name you wish to designated for your computer. (Make a record of this name).
  - Member of: Select the Workgroup radio button, then enter a unique workgroup name. (Make a record of this name).

Computer Name/Domain Changes	×
You can change the name and the membership of this computer. Changes might affect access to network resources. <u>More information</u>	
Computer name:	-
windows2008sql2005sp2	
Full computer name: windows2008sql2005sp2	
More	
Member of	1
O Domain:	
Workgroup:	
EXAMPLE .	
OK Cancel	

Figure 17–3 Computer Name/Domain Changes Dialog Box

- Click More...
- In the "DNS Suffix and NetBIOS Computer Name" dialog box (Figure 17–4), do the following:

**Primary DNS suffix of this computer**: Enter the DNS suffix of your computer (Make a record of this suffix).

**Change primary DNS suffix when domain membership changes**: If check box is selected, deselect it.

Figure 17–4 DNS Suffix and NetBIOS Computer Name Dialog Box

DNS Suffix and NetBIOS Computer Name	×
Primary DNS suffix of this computer:	
vm.example.com	
Change primary DNS suffix when domain membership changes	
NetBIOS computer name: WINDOWS2008SQL2	
This name is used for interoperability with older computers and services.	
OK Cancel	

- Click **OK** to close the dialog box.

- 6. In the "Computer Name/Domain Changes" dialog box, click OK.
- 7. In the "System Properties" window click Close.
- 8. In the reboot dialog box (Figure 17–5) click Restart Later.

Figure 17–5 Microsoft Windows Dialog Box

Microsoft Windows	×
You must restart your computer to apply these changes	
Before restarting, save any open files and close all programs.	
Restart Now Restart Later	

#### 17.2 Configuring the Network Settings

To configure the network settings:

- 1. Open "Network Properties."
  - a. Select Start > Control Panel.
  - b. Click the Network and Sharing Center icon.
  - **c.** Select the Network Connection (Figure 17–6) to edit (if you have more than one see ipconfig result, make sure to select the correct one).

#### Figure 17–6 Network Connection

Retwork and Sharing Center			
G 🕞 🐺 🔹 Control Panel 🔹 Net	vork and Sharing Center	👻 🚱 Search	2
File Edit View Tools Help			
Tasks	Network and Sharing Center		•
View computers and devices			View full map
Connect to a network			
Set up a connection or network		🌉 🗡	-
Manage network connections	WINDOWS2008SQL	2 Multiple networks	Internet
Diagnose and repair	(This computer)		
	Network (Public network)		Customize
	Access	Local only	
	Connection	Local Area Connection	View status
	💐 Unidentified network (Pub	lic network)	Customize
	Access	Local only	
	Connection	Local Area Connection 2	View status
	Sharing and Discovery		
	Network discovery	Custom	-
	File sharing	On On	<b>•</b>
See also	Public folder sharing	© Off	<b>_</b>
Internet Options	Printer sharing	© Off	•
Windows Firewall	Password protected sharing	On	<b>.</b>

- 2. Select View Status, located next to the network connection you have selected.
- **3.** Click **Properties** (Figure 17–7).

Local Area Connection 2 Status		X
General		
Connection		
IPv4 Connectivity:	Local	
IPv6 Connectivity:	Limited	
Media State:	Enabled	
Duration:	00:50:41	
Speed:	1.0 Gbps	
Details		
Activity		
Sent — 🚚 —	Received	
Packets: 264	167	
Properties Disable Diagnose		
	Close	

Figure 17–7 Properties Button

4. Select Internet Protocol Version 4 (TCP/Iv4) (Figure 17–8).

Local Area Connection 2 Properties			
Networking Sharing			
Connect using:			
Intel(R) PRO/1000 MT Network Connection #2			
MAC Address: 00-0C-2 Configure			
This connection uses the following items:			
<ul> <li>Client for Microsoft Networks</li> <li>QoS Packet Scheduler</li> <li>File and Printer Sharing for Microsoft Networks</li> <li>Internet Protocol Version 6 (TCP/IPv6)</li> <li>Internet Protocol Version 4 (TCP/IPv4)</li> <li>Internet Protocol Version 4 (TCP/IPv4)</li> <li>Internet Protocol Version 9 (TCP/IPv4)</li> </ul>			
Install Uninstall Properties			
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.			
OK Cancel			

Figure 17–8 Internet Protocol Version 4 (TCP/Iv4)

- **a.** Set the IP address to an unused, static IP address.
- **b.** Set the preferred DNS server to your computer's IP address.
- c. Click Advanced:
  - Select the check box Append primary and connection-specific DNS suffixes (Figure 17–9).
  - Select the check box Append parent suffixes of the primary DNS suffix (Figure 17–9).

Advanced TCP/IP	Settings			? ×
IP Settings DNS	WINS			
D <u>N</u> S server addre	esses, in order of	use:		
172.1.0.2				t
	<u>A</u> dd	<u>E</u> dit	Remo <u>v</u> e	
The following thre enabled. For reso	ee settings are a olution of unquali	pplied to all conne fied names:	ections with TCP	/IP
<ul> <li>Append prima</li> <li>Append p</li> <li>Append these</li> </ul>	ry and connection arent suffixes of DNS suffixes (in	n specific DNS su the primary DNS	iffixes suffix	
	, Die sumice (i	i order y.		t t
	A <u>d</u> d	Edi <u>t</u> ,	Re <u>m</u> ove	
DNS <u>s</u> uffix for thi	s connection:			
I     Register this       □     Use this conn	connection's add ection's DNS suff	resses in DNS ix in DNS registra	ition	
			ОК	Cancel

Figure 17–9 Advanced TCP/IP Settings

- 5. Click on until you have exited the properties pane, then click Close.
- **6.** Restart the computer.

# 17.3 Installing Active Directory 2008 Services

- 1. Select Start > Server Manger.
- 2. In the "Roles" section (Figure 17–10) click Add Roles.

Figure 17–10 Roles Section - Add Roles



3. In the "Add Roles Wizard" (Figure 17–11) click Next.

Add Roles Wizard		X
Before You Begin		
Before You Begin Server Roles Confirmation Progress Results	This wizard helps you install roles on this server. You determine which roles to install based on the tasks you want this server to perform, such as sharing documents or hosting a Web site.         Before you continue, verify that:         • The Administrator account has a strong password         • Network settings, such as static IP addresses, are configured         • The latest security updates from Windows Update are installed         If you have to complete any of the preceding steps, cancel the wizard, complete the steps, and then run the wizard again.         To continue, dick Next.         If ship page by default          Skip this page by default	

Figure 17–11 Add Roles Wizard - Before You Begin

4. Select Active Directory Domain Services (Figure 17–12) and click Next.



Add Roles Wizard		×
Select Server Ro	les	
Before You Begin Server Roles Active Directory Domain Services Confirmation Progress Results	Select one or more roles to install on this server.         Roles: <ul> <li>Active Directory Certificate Services</li> <li>Active Directory Pederation Services</li> <li>Active Directory Rights Management Services</li> <li>Active Directory Rights Management Services</li> <li>Active Directory Rights Management Services</li> <li>Application Server</li> <li>DHCP Server</li> <li>DHS Server</li> <li>Fax Server</li> <li>Hyper-V</li> <li>Network Policy and Access Services</li> <li>Print Services</li> <li>UDDI Services</li> <li>Windows Deployment Services</li> </ul> More about server roles	Description:         Active Directory Domain Services (AD)         DS) stores information about objects         on the network and makes this         information available to users and         network administrators. AD DS uses         domain controllers to give network         users access to permitted resources         anywhere on the network through a         single logon process.

**5.** Review the list of additional services to be installed along with Active Directory (Figure 17–13) and click **Next**.



Figure 17–13 Add Roles Wizard - Active Directory Domain Services

6. Click Install to begin installation of "Active Directory 2008" (Figure 17–14).

Figure 17–14 Add Roles Wizard - Confirm Installation Selections

Add Roles Wizard		x
Confirm Installat	ion Selections	
Before You Begin Server Roles Active Directory Domain Services	To install the following roles, role services, or features, dick Install.	-
Progress	Active Directory Domain Services	
Results	After you install the AD DS role, use the Active Directory Domain Services Installation Wizard (dcpromo.exe) to make the server a fully functional domain controller.	
	Print, e-mail, or save this information	
	< Previous Next > Install Cancel	

**7.** Allow the installation to complete (Figure 17–15).

Add Roles Wizard	
Installation Prog	ress
Before You Begin Server Roles Active Directory Domain Services Confirmation Progress Results	Ite following roles, role services, or features are being installed     Active Directory Domain Services     Itel installation     Itel installation

Figure 17–15 Add Roles Wizard - Installation Progress

8. Review the results of the "Add Roles Wizard" page (Figure 17–16). Click: Close this wizard and launch the Active Directory Domain Services Installation Wizard (dcpromo.exe).

Figure 17–16 Add Roles Wizard - Installation Results

Add Roles Wizard		×
Installation Result	s	
Before You Begin Server Roles Active Directory Domain Services Confirmation Progress Results	The following roles, role services, or features were installed successfully:          Informational message below <ul> <li>Active Directory Domain Services</li> <li>Installation succeeded</li> </ul> The following role services were installed: <ul> <li>Active Directory Domain Controller</li> <li>Use the Active Directory Domain Services Installation Wizard (dcpromo.exe) to make the server a fully functional domain controller.</li> <li>Close this wizard and launch the Active Directory Domain Services Installation Wizard (dcpromo.exe).</li> </ul>	
	< Previous Next > Close Cancel	

## 17.4 Installing Active Directory 2008 Installation Wizard

**1.** In the welcome screen (Figure 17–17) click **Next**.

Active Directory Domain Services Installation Wizard			
	Welcome to the Active Directory Domain Services Installation Wizard This wizard helps you install Active Directory Domain Services (AD DS) on this server, making the server an Active Directory domain controller. To continue, click Next.		
	Use advanced mode installation Learn more about the additional options that are available in <u>advanced mode installation</u> .		
	More about Active Directory Domain Services		
	< Back Next > Cance		

Figure 17–17 Active Directory Domain Services Installation Wizard - Welcome

2. In the "Operating System Compitibility" screen (Figure 17–18) click Next.



Figure 17–18 Operating System Compatibility

**3.** In the "Choose a Deployment Configuration" screen (Figure 17–19) select **Create a new Domain in a forest**, then click **Next**.

a Active Directory Domain Services Installation Wizard	×
Choose a Deployment Configuration You can create a domain controller for an existing forest or for a new forest.	
O Existing forest	
C Add a domain controller to an existing domain	
C Greate a new domain in an existing forest This server will become the first domain controller in the new domain.	
Create a new domain in a new forest	
More about possible deployment configurations	
< <u>B</u> ack <u>N</u> ext >	Cancel

Figure 17–19 Choose a Deployment Configuration

- **4.** Name the "Forest Root Domain" (Figure 17–20):
  - **a.** Enter the name of the new forest, which is the DNS root domain that you created previously. Click **Next**.

Type the fully qualified domain name (FQDN) of the new forest root domain FQDN of the forest root domain: vm.example.com Example: corp.contoso.com
FQDN of the forest root domain: vm.example.com Example: corp.contoso.com
vm.example.com Example: corp.contoso.com
Example: corp.contoso.com

Figure 17–20 Name the Forest Root Domain

**b.** Allow the check dialog to complete (Figure 17–21).

Figure 17–21 Checking in Progress

Checking whether the i	new forest name is already use

In the "Set Forest Functional Level" screen (Figure 17–22), select Windows Server 2008, then click Next.

a Active Directory Domain Services Installation Wizard	×
Set Forest Functional Level Select the forest functional level.	
<u>Forest functional level:</u> Windows Server 2008	•
Details: This forest functional level does not provide any new features over the Windows 2003 forest functional level. However, it ensures that any new domains created in this forest will automatically operate at the Windows Server 2008 domain functional level, which does provide unique features.	A
You will be able to add only domain controllers that are running Windows Server 2008 or later to this forest. More about <u>domain and forest functional levels</u>	_
< <u>B</u> ack <u>N</u> ext >	Cancel

Figure 17–22 Set Forest Functional Level

6. In the "Additional Domain Controller Options" screen (Figure 17–23), ensure that DNS Server is selected, then click Next.

elect additional options for this d	lomain controller.
DNS server	
🔽 Global catalog	
Read-only domain controller	(RODC)
Additional information:	
controller.	
controller.	×

Figure 17–23 Additional Domain Controller Options

If you have a DHCP based adapter you will see the following pop-up message (Figure 17–24):

Figure 17–24 Static IP Assignment



Select **No**, **I will assign static IP addresses to all physical adapters** to continue with the installation. After the installation completes you can change any DHCP adapter back.

**7.** If the DNS zone you are creating does not have an authoritative parent zone, the following pop-up message may be displayed (Figure 17–25):

Figure 17–25 Active Directory Domain Services Installation Wizard

Active	Directory Domain Services Installation Wizard	$\times$
4	A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain vm.fatwire.com. Otherwise, no action is required. Do you want to continue?	
	Yes No	

Select Yes to continue with the installation.

**8.** In the "Location for Database, Log Files, and SYSVOL" screen (Figure 17–26) select the default in the **Database folder** field or change it as required by your system, then click **Next**.

Active Directory Domain Services Installation Wizard	×
Location for Database, Log Files, and SYSVOL Specify the folders that will contain the Active Directory domain controlle database, log files, and SYSVOL.	r I
For better performance and recoverability, store the database and log file volumes.	es on separate
Database folder:	
C:\Windows\NTDS	Browse
Log files folder:	
C:\Windows\NTDS	Browse
SYSVOL folder:	
C:\Windows\SYSVOL	Browse
, More about <u>placing Active Directory Domain Services files</u>	
< Back Next >	Cancel

Figure 17–26 Location for Database, Log Files, and SYSVOL

**9.** In the "Directory Services Restore Mode Administrator Password" screen (Figure 17–27), enter a password and make a record of it.

acti	ive Directory Domain Servi	ces Installation Wizard	×
Dire	ectory Services Restore Ma	ode Administrator Password	
	The Directory Services Restore Administrator account.	Mode Administrator account is different from the dom	ain
	Assign a password for the Admir controller is started in Directory S choose a strong password.	nistrator account that will be used when this domain Services Restore Mode. We recommend that you	
	Password:	•••••	
	Confirm password:	••••••	
	More about Directory Services F	Restore Mode password	
		< Back Next > C	ancel

Figure 17–27 Directory Services Restore Mode Administrator Password

- **10.** In the "Summary" screen (Figure 17–28):
  - **a.** Review your settings.
  - **b.** Export your settings.
  - c. Click Next.



Active Directory Domain Services Installation Wizard	×
Summary	
Review your selections: Configure this server as the first Active Directory domain controller in a new forest. The new domain name is vm.example.com. This is also the name of the new forest. The NetBIOS name of the domain is VM Forest Functional Level: Windows Server 2008 Domain Functional Level: Windows Server 2008 Site: Default-First-Site-Name Additional Options: To change an option, click Back. To begin the operation, click Next. These settings can be exported to an answer file for use with other unattended operations. More about <u>using an answer file</u>	
< Back Next > Ca	ncel

**11.** Wait for the installation to complete (Figure 17–29).

Active Directory Domain Services Installation Wizard
The wizard is configuring Active Directory Domain Services. This process can take from a few minutes to several hours, depending on your environment and the options that you selected.
Waiting for DNS installation to finish
Cancel

Figure 17–29 Waiting for DNS Installation to Finish

**12.** In the Active Directory Domain Services Installation Wizard (Figure 17–30), click **Finish** to complete the installation.



Figure 17–30 Completing the Active Directory Domain Services Installation Wizard

**13.** Reboot the System.

#### 17.5 Checking Group Policies

- 1. Select Start > Run.
  - **a.** Enter gpmc.msc in the available field.
  - **b.** Click **OK** (Figure 17–31).
Figure 17–31 Run Dialog Box

🖅 Run		×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open:	gpmc.msc 💌	
	This task will be created with administrative privileges.	
	OK Cancel Browse	

**2.** "Group Policy Management" opens (Figure 17–32).

Figure 17–32 Group Policy Management

File Action View Window Help	🔜 Group Policy Management	
Concerns Contents Con	🔣 File Action View Window	Help
Image: Group Policy Management       Contents         Image: Group Policy Management       Contents         Image: Group Policy Management       Contents         Image: Group Policy Management       Image: Group Policy Management		
	Group Policy Management → A Forest: vm.example.com	Group Policy Management Contents Name Forest: vm.example.com

a. Expand the tree Domains > <your domain name>, then select Default Domain Policy, located in the left panel of the "Group Policy Management" screen (Figure 17–33).



E Group Policy Management	
🔀 File Action View Window Help	_B×
⇐ ⇒   2 💼   Q   🛛 🖬	· · · · · · · · · · · · · · · · · · ·
Group Policy Management Construction of the settings of the s	slegation
Name	Remove Properties
WMI Filtering This GPO is linked to the follow	ving WMI filter:

**b.** Select the **Settings** tab (Figure 17–34).

File Action View Window Help		_ 8 ×
🗢 🔿 🖄 🖬 🙆 📝 🖬		
Group Policy Management		
<ul> <li>A Forest: vm.example.com</li> <li>Domains</li> <li>vm.example.com</li> <li>vm.example.com</li> <li>vm.example.com</li> <li>com</li> <li>co</li></ul>	Default Domain Policy         Scope       Details       Settings         Default Domain Policy       Data collected on: 2/19/2008 5:29:00 PM         Computer Configuration (Enabled)       Policies         Windows Settings       Security Settings         User Configuration (Enabled)       No settings defined.	show all hide hide hide hide hide
<		

Figure 17–34 Group Policy Management - Settings Tab

**c.** Expand **Security > Account Policy/Password Policy** section (Figure 17–35), by clicking **show**.



Figure 17–35 Security > Account Policy/Password Policy

**3.** Review the "Policy" list. The option **Password must meet complexity requirements** is set to true by default. Change this option to **Disabled** (default WebCenter Sites passwords do not meet these requirements).

## 17.6 Changing Group Policies

- 1. Select Start > Run.
  - **a.** Enter: gpmc.msc in the field provided.
  - **b.** Click **OK** (Figure 17–36).

Figure 17–36 Run Dialog Box

🖅 Run		×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open:	gpmc.msc 💌	
	🕐 This task will be created with administrative privileges.	
	OK Cancel Browse	

 In the "Group Policy Management" screen, expand the tree Domains > name of your domain. Select the Default Domain Policy, located on the right of the screen (Figure 17–37), then select edit.

Figure 17–37 Default Domain Policy

📓 Group Policy Management							
📓 File Action View Window Help							
🗢 🔿 🙍 🖬 🧕 🖬							
Group Policy Management  Constraints  Constr	Default Domain Policy         Scope       Details       Settings       Delegation         Links       Display links in this location:       Vm.example.com       Vm.example.com         The following sites, domains, and OUs are linked to this GPO:       Ink Enabled       Path         Icocation       Enforced       Link Enabled       Path         Image: Security Filtering       Image: Security Filtering       Image: Security Filtering						
	The settings in this GPO can only apply to the following groups, users, and computers:          Name						

3. The "Group Policy Management Editor" window opens (Figure 17–38).



Figure 17–38 Group Policy Management Editor

 a. In the left hand tree expand: Computer Configuration > Policies > Windows Settings > Security Settings > Account Settings > Password Policy (Figure 17–39).

🗐 Group Policy Management Editor								
File Action View Help								
Default Domain Policy [WINDOWS2008SQL2	Policy 🔺	Policy Setting						
E 🛃 Computer Configuration	Enforce password history	24 passwords remembered						
	📓 Maximum password age	42 days						
Software Settings	📓 Minimum password age	1 days						
Windows Settings     Scripts (Startup (Shutdown))	Minimum password length	7 characters						
	Password must meet complexity requirements	Enabled						
E Account Policies	Store passwords using reversible encryption	Disabled						
Password Policy								
🕀 📑 Account Lockout Pol								
🕀 📑 Kerberos Policy								
🕀 📑 Local Policies								
🕀 🚋 Event Log								
🕀 📑 Restricted Groups								
System Services								
🗄 📑 Registry								
He System								
Windows Firewall with A								
Network List Manager Pr								
Wireless Network (IEEE								
🕀 🛄 Public Key Policies								
🕀 📔 Software Restriction Pol								
🕀 🧮 Network Access Protect								
🕀 😓 IP Security Policies on A								
Policy-based QoS								
Administrative Templates: Policy								
H references								
	]							

Figure 17–39 Security Settings Expanded

- **b.** Right-click **Password must meet complexity requirements**, located on the right side of the screen, then select **Properties**.
- **c.** In the "Password must meet complexity requirements Properties" dialog box (Figure 17–40) select the radio button **Disabled**, then click **OK**.



Figure 17–40 Password Must Meet Complexity Requirements Properties Dialog Box

- **d.** Close the "Group Policy Management Editor" and "Group Policy Management" windows.
- **4.** The domain will no longer check for password complexity. WebCenter Sites default passwords can now be used.

When WebCenter Sites is installed you can reverse step 2 by clicking **Enabled** to re-engage the security settings.

## 17.7 Connecting to ADS Using an LDAP Browser

This section shows you how to connect to Active Directory Server using an LDAP browser.

**Note:** You cannot add groups, set passwords, or activate accounts using an LDAP browser.

- **1.** Open the LDAP browser.
- 2. Select the Quick Connect tab.
- **3.** Fill out the following information (Figure 17–41):

- Host: localhost (if connecting remotely, enter the actual host name)
- **Base DN:** <DNS\_suffix> (the part of the DNS name after the host name)
- Anonymous bind: deselect
- User DN: administrator@<DNS\_suffix>
- Append base DN: deselect
- **Password:** <ADS\_password> (you created this password in step 9)

Figure 17–41 Edit Session - Connection

🕌 Edit Ses	sion	×
Name	Connection Options	
- Host Info		
Host:	localhost	Port: 389 Version: 3 💌
Base DN:	DC=vm,DC=example,DC=com	-
	Fetch DNs S	SL Anonymous bind
- User Info		
User DN	: Administrator@example.com	🔄 append base DN
Password		
		Save Cancel

- 4. Click Connect.
- 5. Show the default view on the LDAP tree (Figure 17–42).

#### Figure 17–42 LDAP Browser\Editor

LDAP Browser\Editor v2.8.2 -	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>L</u> DIF <u>H</u> elp	
🖳 🚸 🗶 🖧 🖄 🖄 🕅 🔊 🚺	
DC=vm,DC=example,DC=com	Attribute Value
🗣 🗂 CN=Builtin	
► 📑 CN=Computers	
🗣 🗂 OU=Domain Controllers	
← 📑 CN=ForeignSecurityPrincipals	
← 📑 CN=Infrastructure	
←	
← 🛄 CN=NTDS Quotas	
🗣 🔚 CN=Program Data	
← CN=System	
CN=Users	
DC=ForestDnsZones [ForestDnsZone	
DC=DomainDnsZones [DomainDnsZ	
CN=Configuration [vm.example.com	
Ready. 31 entries returned.	U

# Setting Up OpenLDAP 2.3.x

This chapter explains how to set up OpenLDAP for use with WebCenter Sites.

**Note:** You must set OpenLDAP **before** you run the WebCenter Sites-LDAP integrator.

It contains the following sections:

- Section 18.1, "OpenLDAP Commands"
- Section 18.2, "Installing OpenLDAP"
- Section 18.3, "Configuring OpenLDAP"
- Section 18.4, "Adding WebCenter Sites Schema to OpenLDAP"
- Section 18.5, "Modifying User Passwords"

## 18.1 OpenLDAP Commands

This section contains the most commonly used OpenLDAP commands. Use it as a reference when configuring OpenLDAP for use with WebCenter Sites.

#### 18.1.1 Starting OpenLDAP

**Note:** This section assumes that the slapd daemon is located in /usr/local/libexec. Depending on your installation, the daemon might be located elsewhere. In such cases, substitute the correct path in the commands listed in this section.

• To start OpenLDAP normally, use the following command:

/usr/local/libexec/slapd

• To start OpenLDAP with full debugging (useful when diagnosing configuration issues and installing WebCenter Sites), use the following command:

/usr/local/libexec/slapd -h 'ldap:///' -d 0x5001

## 18.1.2 Searching an OpenLDAP Server

To search an OpenLDAP Server, do the following:

**1.** Execute the following command:

```
ldapsearch -x -D "cn=Manager,dc=<domain>,dc=<extension>" -W
-b '' -s base '(objectClass=*)' namingContexts
```

where <domain> and <extension> are the values you specified in step a on page 18-6.

**2.** When prompted for a password, enter the Root DN user password you specified in step d on page 18-7.

A typical response from the ldapsearch command looks as follows:

```
Enter LDAP Password:
# extended LDIF
#
# LDAPv3
# base <> with scope baseObject
# filter: (objectClass=*)
# requesting: namingContexts
#
#
dn:
namingContexts: dc=example,dc=com
# search result
search: 2
result: 0 Success
# numResponses: 2
# numEntries: 1
```

### 18.1.3 Adding an LDIF File to an OpenLDAP Server

To add a well-formed LDIF file to your OpenLDAP Server, use the ldapadd command:

```
ldapadd -D 'cn=Manager,dc=<domain>,dc=<extension>'
-w <root_dn_password> -f <LDIF_file_name>
```

where:

- <domain> and <extension> are the values you specified in step a on page 18-6.
- <root\_dn\_password> is the Root DN user password you specified in step d on page 18-7.
- <LDIF\_file\_name> is the name of the LDIF file you are adding.

## 18.2 Installing OpenLDAP

This section explains how to install OpenLDAP.

**Note:** OpenLDAP is bundled with most Linux distributions. If OpenLDAP is already installed on your system, skip this section.

#### To install Open LDAP

1. Download the OpenLDAP tgz archive from the OpenLDAP web site:

http://www.openldap.org/

For example: openIdap-stable-20070110.tgz

- **2.** Decompress the archive (Figure 18–1):
  - If you are using GNU, use the following command:

tar-xvzf openldap-stable-20070110.tgz

- If you are not using GNU, use the following command:

gzip -d openldap-stable-20070110.tgz ; tar -xvf openldap-stable-20070110.tar

Figure 18–1 Archive Decompression

Session	Edit	View	Bookmarks	Settings	Help			
egandt@ openlda egandt@ aclocal ANNOUNO build egandt@	linu ap-2. linu m4 CEMEN	x-gan x-gan x-gan CH T cl x-gan	dt:~/shar openldap dt:~/shar ANGES ients nfigure dt:~/shar	ed/open ed/open ed/open ed/open configu configu COPYRIG	ldap> -2007 ldap> ldap/ ldap/ re.in HT ldap/	tar -xzf ls cd openl openldap-: doc include INSTALL openldap-:	openldap-stal dap-2.3.32/ 2.3.32> ls libraries LICENSE Makefile.in 2.3.32> ./con	README servers tests figure []
🛃 🖲 s	hell							

**3.** Change to the directory containing the OpenLDAP source (Figure 18–2). For example:

cd openldap-2.3.32

#### Figure 18–2 Directory Change

Session	Edit	∨iew	Bookmarks	Settings	Help			
egandti openld egandti egandti acloca ANNOUNI build egandti	alinu alinu alinu alinu ceMeN alinu	x-gan x-gan 3.32 x-gan T cl CO x-gan	dt:~/shar openldap dt:~/shar dt:~/shar ANGES ients nfigure dt:~/shar	red/open red/open red/open red/open configur contrib COPYRIG	Help ldap> -2007C ldap/c re.in HT ldap/c	tar -xzf ls d openla penldap-2 doc include INSTALL penldap-2	openldap-stab dap-2.3.32/ 2.3.32> 1s libraries LICENSE Makefile.in 2.3.32> ./conf	README servers tests Tigure
	Shell							

**4.** Configure the OpenLDAP source (Figure 18–3) as follows:

./configure --enable-crypt --with-tls

Figure 18–3 OpenLDAP Source Configuration

The suggested options are:

- --enable-crypt enables password encryption
- --with-tls enables TLS/SSL support

Note: If you want to customize OpenLDAP for your system, run

./configure --help for a complete list of configuration options.

- 5. Compile OpenLDAP dependencies: make depend
- 6. Compile OpenLDAP: make
- 7. Install OpenLDAP: make install

**Note:** By default, OpenLDAP is installed in /usr/local.

## 18.3 Configuring OpenLDAP

Shell

pñ

This section shows you how to configure your OpenLDAP installation.

**1.** Edit the ldap.conf file as follows:

**Note:** If you installed OpenLDAP manually by following the steps in the previous section, ldap.conf is located in /usr/local/etc.

**a.** Specify your Base DN. Locate the following line (or create it if it does not exist):

BASE dc=<domain>,dc=<extension>

where <domain> and <extension> are, respectively, the domain and TLD of your LDAP server.

The Base DN for OpenLDAP should always be two dc's in length. For example, if your full domain is vm.example.com, your Base DN would be example.com, and your BASE line would look as follows:

BASE dc=example,dc=com

**b.** Specify your URI(s). Locate the following line (or create it if it does not exist):

URI ldap://<hostanme\_or\_IP> ldap://<hostanme\_or\_IP>

Enter the host names and/or IP addresses on which on which OpenLDAP is to listen for connections. Separate the entries with spaces. For example:

URI ldap://127.0.0.1 ldap://localhost ldap://172.19.1.2

2. Edit the sldapd.conf file as follows:

**Note:** If you installed OpenLDAP manually by following the steps in the previous section, sldapd.conf is located in /usr/local/etc.

**a.** Locate the following section:

```
access to *
   by self write
   by users read
and replace it with:
access to *
   by dn="cn=Manager,dc=<domain>,dc=<extension>" write
by self write
by users read
by anonymous auth
```

where <domain> and <extension> are the values you specified in step 1a on page 18-6.

**b.** Specify your suffix. Locate the following line (or create it if it does not exist):

suffix dc=<domain>,dc=<extension>

where <domain> and <extension> are the values you specified in step 1a on page 18-6.

**c.** Specify your Root DN user. (The Root DN user is used to access the LDAP Server.) Locate the following line (or create it if it does not exist):

rootdn cn=<user\_name>, dc=<domain>, dc=<domain>

Enter Manager as the user name and replace <domain> and <extension> with the values you specified in step 1a on page 18-6.

**d.** Specify a password for the Root DN user. Locate the following line (or create it if it does not exist):

rootpw<password>

**Note:** The password can be either encrypted or unencrypted. (Encrypted passwords start with {SSHA}). If you wish to use an encrypted password, do the following:

- Generate an encrypted password (hash) using the slappasswd command. The command generates a valid encrypted password (hash) and prints it to the terminal.
- Perform step e below.
- **e.** (Optional) If you chose to use an encrypted password in the previous step, set the password type to SHA. Locate the following line (or create it if it does not exist):

password-hash {SSHA}

This sets the password type to SHA (the default). You can set other password types; see the OpenLDAP documentation for more information.

3. Edit the core.schema file as follows:

**Note:** If you installed OpenLDAP manually by following the steps in the previous section, core.schema is located in /usr/local/etc/schema.

**a.** Locate the following section:

objectclass ( 2.5.6.17 NAME 'groupOfUniqueNames' DESC 'RFC2256: a group of unique names (DN and Unique Identifier)'SUP top STRUCTURAL MAY ( businessCategory \$ seeAlso \$ owner \$ ou \$ o \$ description \$ uniqueMember) MUST ( uniqueMember \$ cn ))

**b.** Comment the section out by placing a # character at the beginning of each line. Then insert the following modified section after it:

objectclass ( 2.5.6.17 NAME 'groupOfUniqueNames' DESC 'RFC2256: a group of unique names (DN and Unique Identifier)'SUP top STRUCTURALMAY ( businessCategory \$ seeAlso \$ owner \$ ou \$ o \$ description \$ uniqueMember) MUST ( cn ))

The difference between the original and modified sections is the last line:

MUST ( uniqueMember \$ cn ) becomes MUST ( cn )

OpenLDAP is now configured.

## 18.4 Adding WebCenter Sites Schema to OpenLDAP

This section shows you how to add WebCenter Sites schema to your OpenLDAP server.

**Note:** If you are copying the contents of the sample LDIF file below, make sure to insert an empty line between dn sections and at the end of the file.

#### To configure OpenLDAP for WebCenter Sites

1. Create an LDIF file named pre\_cs\_openldap.ldif with the following contents:

```
dn: dc=<domain>,dc=<extension>
objectClass: dcObject
objectClass: organization
dc: example
description: OpenLDAP pre_cs_setup
o: Example Software
```

```
# LDAP Manager Role
dn: cn=Manager,dc=<domain>,dc=<extension>
objectclass: organizationalRole
cn: Manager
```

```
# add the organizational Unit People
dn: ou=People,dc=<domain>,dc=<extension>
objectClass: organizationalUnit
objectClass: top
ou: People
```

```
# add the organizational Unit Group
dn: ou=Groups,dc=<domain>,dc=<extension>
objectClass: organizationalUnit
objectClass: top
ou: Groups
```

where <domain> and <extension> are the values you specified in step a on page 18-6.

The file will create a new organization (example) containing two sub-organizations (Groups and People) and the Manager user. The Manager user will be used to access the LDAP server.

2. Add the pre\_cs\_openldap.ldif file to your OpenLDAP server. Execute the following command:

ldapadd -D 'cn=Manager,dc=<domain>,dc=<extension>'

```
-w <root_dn_password> -f pre_cs_openldap.ldif
```

where:

- <domain> and <extension> are the values you specified in step a on page 18-6.
- <root\_dn\_password> is the Root DN user password you specified in step d on page 18-7.
- **3.** Test your OpenLDAP server. Execute the following command:

```
ldapsearch -x -b 'ou=Groups,dc=<domain>,dc=<extension>'
'(objectclass=*)'
```

where <domain> and <extension> are the values you specified in step a on page 18-6.

An example response from the ldapsearch command looks as follows:

```
# extended LDIF
#
# LDAPv3
# base <ou=Groups,dc=example,dc=com> with scope subtree
# filter: (objectclass=*)
# requesting: ALL
#
#
# search result
search: 2
result: 0 Success
# numResponses: 1
```

If the pre\_cs\_openldap.ldif file was successfully inserted into the LDAP server, the result: line indicates success, at which point you are ready to run the WebCenter Sites LDAP integrator. For instructions, see Part V, "Integrating Oracle WebCenter Sites with LDAP."

## 18.5 Modifying User Passwords

When you ran the WebCenter Sites LDAP integrator, all WebCenter Sites users (except fwadmin, ContentServer, and DefaultReader) were assigned the password which you entered in the "WebCenter Sites Configuration" screen. For security reasons, you might want to manually assign unique passwords to those users.

**Note:** If you chose to use encrypted passwords when you configured OpenLDAP, you must change the passwords for all users on your WebCenter Sites system, or your WebCenter Sites installation will not function properly. This is because the WebCenter Sites-LDAP integrator writes user passwords into OpenLDAP as plaintext, but OpenLDAP expects password hashes.

The following table shows the passwords you must assign to your WebCenter Sites users:

User	Password	
DefaultReader	SomeReader	
ContentServer	The password you supplied during WebCenter Sites installation	
fwadmin	The password you supplied during WebCenter Sites installation	
All other users on your WebCenter Sites system	The password you supplied during WebCenter Sites- LDAP integration	

This section covers the following methods for changing passwords in OpenLDAP:

- Section 18.5.1, "Modifying User Passwords Using an LDAP Browser"
- Section 18.5.2, "Modifying User Passwords Using the Idapmodify Command"

### 18.5.1 Modifying User Passwords Using an LDAP Browser

This section shows you how to modify user passwords using the free LDAP Browser/Editor program available at http://www-unix.mcs.anl.gov/~gawor/ldap/.

#### To modify user passwords in OpenLDAP using an LDAP browser

- 1. Download and install the LDAP browser.
- 2. Start the LDAP browser: ./lbe.sh
- **3.** Click the **Quick Connect** tab (Figure 18–4).

#### Figure 18–4 Quick Connect Tab

X Conne	et	
Session L	ist Quick Connect	
Connecti	on Options	
– Host Info	1	
Host		Port: Version: 3 💌
Base DN:		•
	Fetch DNs SSL	🖌 Anonymous bind
- User Info	I	
User DN:	cn=Directory Manager	append base DN
Password:		
		Connect Cancel

#### **4.** Fill out the fields as follows:

Field	Value	
Hostname	The host name of your OpenLDAP server.	
Port	389	
Version	3	
Base DN	The Base DN you specified in step a.	
Anonymous bind	Yes (select check box)	
User DN	cn=Manager	
Append base DN	Yes (select check box)	
Password	The Root DN user password you specified in step d on page 18-7.	

- 5. Click Connect.
- 6. In the left-hand tree, expand the **ou=People** node (Figure 18–5).

Figure 18–5 ou-People Expanded

LDAP Browser\Editor v2.8.2 -	1	9	
<u>File Edit View L</u> DIF <u>H</u> elp			
🗏 🗇 🗶 🔥 🖪 🗶 🗐 \land 🚺			
<pre>dc=example,dc=com</pre>	Attribute userPassword description objectClass objectClass objectClass sn cn	Value BINARY (6b) JBoss Portal Idapuser top organizationalPerson person Idapuser Idapuser	User for test LDA
			► ►
Ready.			U

- 7. Double-click the user whose password you want to change and press Ctrl-E.
- **8.** The plaintext password written by the WebCenter Sites-LDAP integrator appears in the **userPassword** field (Figure 18–6). Click **Set**.

Figure 18–6 Edit Dialog Box

🗙 Edit -	e e e e e e e e e e e e e e e e e e e
<u>F</u> ile <u>E</u> dit	
objectClass:	top
objectClass:	organizationalPerson
objectClass:	person
userPassword:	testme Verify Set Save as Insert from
description:	JBoss Portal Idapuser User for test LDAP integration
sn:	Idapuser
cn:	Idapuser
	Apply Cancel

9. In the pop-up window, enter the user's password (Figure 18–7) and click Set.

Figure 18–7 Generate Password Dialog Box

🗙 Generate Password		
Enter password:		
Se	Cancel	

The password appears in its encrypted form.

**10.** Click **Apply** to save the new password (Figure 18–8).

Figure 18–8 Edit Dialog Box

🗙 Edit -	
<u>F</u> ile <u>E</u> dit	
objectClass:	top
objectClass:	organizationalPerson
objectClass:	person
userPassword:	(SHA)Or7xoUzOzSDWzoksvgQq5tdJRs Verify Set Save as Insert from
description:	JBoss Portal Idapuser User for test LDAP integration
sn:	Idapuser
cn:	Idapuser
	Apply Cancel

**11.** Repeat steps 7–10 on page 18-12 for each user whose password you want to change. When you are finished, test your integration by logging in to WebCenter Sites.

#### 18.5.2 Modifying User Passwords Using the Idapmodify Command

The ldapmodify command provides you with an interface in which you can enter valid LDIF statements to make changes to the configuration of your OpenLDAP server. This section shows you how to use the ldapmodify and sldappasswd commands to change the passwords of LDAP users.

#### To modify user passwords in OpenLDAP using the ldapmodify command

1. Generate an encrypted password for each user. Run the sldappasswd command and enter the plaintext password which you want to encrypt. The command outputs the encrypted password (hash) to the terminal. For example:

{SSHA}ydUT5RCpBAU80P0PW8gaHnsmYmL1mUL8

**Note:** If you are generating hashes for a large number of users, it is a good idea to store the hashes in a file, so that you can easily retrieve them in step 3 on page 18-13. When you finish this procedure, make sure that you destroy the file in which the hashes are stored.

**2.** Execute the ldapmodify command as follows:

ldapmodify -D 'cn=Manager,dc=<domain>,dc=<extension>'

```
-w <root_dn_password>
where:
```

- <domain> and <extension> are the values you specified in step a on page 18-6.
- <root\_dn\_password> is the Root DN user password you specified in step d on page 18-7.

When the command returns a blank line, you are ready to input LDIF statements.

- 3. Change the user's password. Issue the following commands:
  - a. dn:cn=<user\_name>,ou=People,dc=<domain>,dc=<extension>

where user\_name is the user name of the user whose password you want to change, and <domain> and <extension> are the values you specified in step a on page 18-6.

- **b.** changetype:modify
- c. replace:userPassword
- d. userpassword:<password\_hash>

where <password\_hash> is the hash generated by the sldappasswd command in step 1 on page 18-12 of this procedure.

- e. Press Ctrl+D.
- f. Repeat steps a-e on page 18-13 for each user whose password you want to change. When you are finished, press Ctrl+C to terminate the ldapmodify command.

# Part V

# Integrating Oracle WebCenter Sites with LDAP

Part V contains the following chapters:

- Chapter 19, "Overview of the Oracle WebCenter Sites-LDAP Integration"
- Chapter 20, "Integrating Oracle WebCenter Sites with Flat Schema LDAP Servers"
- Chapter 21, "Integrating Oracle WebCenter Sites with Hierarchical Schema LDAP Servers"
- Chapter 22, "Reference: Sample LDIF for Hierarchical Schema LDAP"

## Overview of the Oracle WebCenter Sites-LDAP Integration

This chapter provides an overview of your options to integrate Oracle WebCenter Sites with an LDAP server.

This chapter contains the following sections:

- Section 19.1, "Introduction"
- Section 19.2, "LDAP Integration Options"

## **19.1 Introduction**

WebCenter Sites connects to an authentication system through the Directory Services API. This API provides out-of-the-box support for two types of authentication systems, as shown in Figure 19–1.

- The native authentication system, which validates WebCenter Sites users against the WebCenter Sites user management tables SystemUsers and SystemUserAttrs.
- External directory server (LDAP server), which must be integrated with WebCenter Sites in order to validate WebCenter Sites users against the users that are listed in the directory server's database.



Figure 19–1 Two Types of Authentication

**Note:** External user managers can also be integrated with WebCenter Sites, but must be customized to authenticate and/or authorize users.

## **19.2 LDAP Integration Options**

The following types of external directory servers can be integrated with WebCenter Sites:

- Flat schema LDAP, which provides authentication and authorization services for web applications. LDAP schema is automatically configured when you run the WebCenter Sites-LDAP integrator (included with WebCenter Sites). The integrator requires you to first install a supported LDAP server (listed in the Oracle WebCenter Sites Certification Matrix available here: http://www.oracle.com/technetwork/middleware/webcenter/sites/ downloads/index.html).
- Hierarchical schema LDAP, which provides authentication and authorization services for web applications and requires manual integration with WebCenter Sites.

Both integration options involve connecting the LDAP server to the Directory Services API by setting connection properties in the WebCenter Sites futuretense.ini, futuretense\_xcel.ini, and dir.ini files. Integration is complete when the WebCenter Sites user data is written to the LDAP server. Which type of data must be written depends on LDAP schema:

- Flat schema LDAP requires authentication and authorization to be managed in the LDAP server, which means that WebCenter Sites users, ACLs, roles, and sites must be written to LDAP. Users include user accounts, user profiles, and user attributes.
- Hierarchical schema LDAP requires only authentication to be managed in the LDAP server, which means that only users and ACLs must be written to LDAP. (Again, users include user accounts, user profiles, and user attributes.)

Writing roles and sites is optional. Choosing this option requires you to create a site organizational unit in the LDAP server by subordinating the WebCenter Sites roles to their relevant sites.

Integration Type/Method	Flat Schema LDAP - Authentication	Flat Schema LDAP - Authorization	Hierarchal Schema LDAP - Authentication	Hierarchal Schema LDAP - Authorization
WebCenter Sites Web Application	Required	Required	Required	Optional
Method	Integrator writes WebCenter Sites users and ACLs to LDAP	Use integrator or manually write WebCenter Sites roles and sites to LDAP	Integrate manually	Integrate manually

The following table summarizes LDAP schema and integration requirements.

- For procedures on integrating with flat schema LDAP, see Chapter 20, "Integrating Oracle WebCenter Sites with Flat Schema LDAP Servers."
- For procedures on integrating with hierarchical schema LDAP, see Chapter 21, "Integrating Oracle WebCenter Sites with Hierarchical Schema LDAP Servers."

## Integrating Oracle WebCenter Sites with Flat Schema LDAP Servers

This chapter provides instructions for using Oracle's integrator to automatically integrate WebCenter Sites with a supported LDAP server. The integrator configures a flat schema for authentication and authorization services for the WebCenter Sites web application.

This chapter contains the following sections:

- Section 20.1, "WebCenter Sites-LDAP Integrator"
- Section 20.2, "Running the WebCenter Sites-LDAP Integrator"
- Section 20.3, "Completing the Integration"
- Section 20.4, "Post-Integration Steps: When CM Sites Have Not Been Created"
- Section 20.5, "Testing the Integration"

## 20.1 WebCenter Sites-LDAP Integrator

Oracle's LDAP integrator requires a fully functional WebCenter Sites web application and a pre-installed, supported LDAP server.

The integrator works by first prompting you for parameters relating to your WebCenter Sites installation and LDAP server. When you provide the requested information and click **Install**, the integrator uses your inputs to perform the following steps:

- 1. The integrator sets LDAP connection properties in the WebCenter Sites futuretense.ini, futuretense\_xcel.ini, and dir.ini files in order to:
  - Establish communication between the LDAP server and the WebCenter Sites Directory Services API.
  - Enable the LDAP server to recognize the user that WebCenter Sites will invoke to query the LDAP server.
  - Configure a flat schema.
  - Modify the LDAP database to use WebCenter Sites ACLs in LDAP format.

For a listing of the LDAP connection properties that are set by the integrator, see Chapter 21, "Integrating Oracle WebCenter Sites with Hierarchical Schema LDAP Servers." (Note that the properties for flat and hierarchical schema are identical; only the values differ.)

- **2.** In its final steps, the integrator does one of the following, depending on the option you selected:
  - If you selected the Automatic option, the integrator loads the LDAP server with the WebCenter Sites information — users, ACLs, roles, and sites to which the roles apply.
  - If you selected Manual, the LDAP integrator requires an LDAP user with write permissions to manually write users, ACLs, and roles (including their relevant sites) to the LDAP server, either directly or via an ldif file. This information is written once the integrator completes its process.
- **3.** Regardless of which option you selected (**Automatic** or **Manual**), you will have to complete the integration by resetting (in the LDAP server) the passwords of WebCenter Sites users.

## 20.2 Running the WebCenter Sites-LDAP Integrator

To integrate with flat schema LDAP, complete the steps in the following sections:

- Section 20.2.1, "Prerequisites"
- Section 20.2.2, "Integration Steps"

#### 20.2.1 Prerequisites

Before integrating WebCenter Sites with LDAP, prepare your system:

- **1.** The LDAP integrator can run only on a WebCenter Sites full product release. Perform LDAP integration before any hot-fixes or patches are installed.
- 2. Make sure WebCenter Sites is installed on one of the supported platforms and is fully functional. Currently supported platforms are listed in the Oracle WebCenter Sites Certification Matrix here: http://www.oracle.com/technetwork/middleware/webcenter/sites/downloads/index.html.

For WebCenter Sites installation instructions and verification tests, refer to the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

- **3.** Back up the entire WebCenter Sites system. If the integration fails, you can recover the ldif file and import it manually to restore the WebCenter Sites users and permissions.
- 4. Make sure the LDAP server is ready for integration:
  - a. If a supported LDAP server is not installed, install it now. (For the list of currently supported LDAP servers, refer to the Oracle WebCenter Sites Certification Matrix available here: http://www.oracle.com/technetwork/middleware/webcenter/sites/downloads/index.html.)
  - **b.** Note the following parameters. You will supply values for them during the integration process:
    - LDAP host name (or IP address)
    - LDAP port number
    - People parent DN
    - Group parent DN

- Base DN, if you are using Sun JES Directory Server
- **c.** Determine whether the user connecting to LDAP will be the same user that is logged in to WebCenter Sites. If the connecting user is *not* a WebCenter Sites user, you will need to provide a user name and password.
- **5.** During the integration process, you will be prompted to select either the **Automatic** or **Manual** integration option.
  - If you have write permissions to the LDAP server, select Automatic. The integrator will write the WebCenter Sites users, ACLs, roles, and sites to the LDAP server.
  - If you do not have write permissions to the LDAP server, you will select
     Manual and continue to run the integrator. When the integrator completes its process, an LDAP user with write permissions must be available to complete the integration.

#### 20.2.2 Integration Steps

In this section you will run the WebCenter Sites-LDAP integrator (included on the WebCenter Sites CD) to integrate WebCenter Sites with a supported LDAP server of your choice.

#### To integrate WebCenter Sites with LDAP

- **1.** If you have not already done so, decompress the WebCenter Sites installation archive to a temporary directory and change to that directory.
- **2.** Run the WebCenter Sites integrator (Figure 20–1) by executing the following command:
  - On Windows: configureLDAP.bat
  - On Unix: ./configureLDAP.sh





**3.** In the "Pre-Installation Requirements" screen (Figure 20–2), make sure you have satisfied the requirements shown, then click **Next**.

Figure 20–2 Pre-Integration Requirements

	Pre-Integration Requirements	X
Installer	Oracle WebCenter Sites	
	Pre-Integration Requirements	
	<ul> <li>Before integrating your system with an LDAP server, ensure the following:</li> <li>1. Your Oracle WebCenter Sites system is configured for its business application and it is fully functional.</li> <li>2. The LDAP server is set up for integration.</li> </ul>	
Exit	Previous Next	

**4.** In the "Sites Information" screen (Figure 20–3), enter the location of the directory in which WebCenter Sites has been installed.

#### Figure 20–3 Sites Information

	Oracle WebCenter Sites Information		
Installer		Oracle WebCenter S	Sites
	Sites Information		
	Path to the Sites installation directory:		
	/root/oracle/webcenter/sites		
		Choose	
Exit		Previous	:

- 5. In the "LDAP Server" screen (Figure 20–4), do the following:
  - **a.** Select the LDAP server you are using.
  - **b.** Specify whether you are integrating with a standalone instance of WebCenter Sites, or a member of a WebCenter Sites cluster.
  - c. Click Next.

Figure	20–4	LDAP	Server
--------	------	------	--------

	LDAP Server	
Installer		Oracle WebCenter Sites
	LDAP Server	
	Select the LDAP server you want to integrate WebLogic Embedded LDAP	::
	Specify whether this installation is clustered Single Server	l or non-clustered:
Exit		Previous Next

**6.** In the "LDAP Parameters" screen (Figure 20–5), enter the following information.

#### Figure 20–5 LDAP Parameters

	LDAP Parameters	
Installer		Oracle WebCenter Sites
	LDAP Parameters	
	LDAP host: server123.example.com	
	LDAP port: 7001	
	User name:	
	JNDI password:	
	•••••••• People parent DN:	
	ou=People,dc=example,dc=com	
	ou=Groups,dc=example,dc=com	
Exit		Previous Next

- **a.** LDAP Host host name or IP address of your LDAP server.
- b. LDAP Port port number on which your LDAP server is listening for connections. The default port, 389, is displayed in the field. Do not change this default value unless you are creating a specialized integration.
- **c.** User name name of the LDAP user used to access your LDAP server. (This field does not appear if you selected WebLogic Embedded LDAP in step 5.)

The value you enter determines whether WebCenter Sites accesses the LDAP server through a WebCenter Sites user or an independent user. Do one of the following:

- Leave this field blank if you want the LDAP user to be the same user that is logged into WebCenter Sites. The integrator will set the value of the jndi.connectAsUser property (in dir.ini) to true.
- Enter a value if you want the LDAP user to be a user that you specified within your LDAP server. Your value must be a fully qualified, fully distinguished LDAP user name. The integrator will assign the user name to the jndi.login property (in dir.ini). It will also set jndi.connectasUser to false.

Valid entry: cn=<username>, dc=<domain>, dc=<extension>

Example: cn=Manager, dc=example, dc=com
**d. JNDI Password** — password of the LDAP user who will access the LDAP server. Enter a value only if you provided a user name in the preceding field.

**Note:** If you selected **WebLogic Embedded LDAP** in step 5, enter the password you provided when you enabled the WebLogic Embedded LDAP Server.

The integrator will assign this password in an encrypted form to the jndi.password property (in dir.ini).

e. People parent DN — DN of the People parent node in your LDAP server. WebCenter Sites users will be stored under this node. (This field does not appear if you selected WebLogic Embedded LDAP in step 5.)

Valid entry: ou=People, dc=<domain>, dc=<extension>

Example: ou=People, dc=example, dc=com

f. Group parent DN — DN of the Groups parent node in your LDAP server. WebCenter Sites ACLs will be stored under this node. (This field does not appear if you selected WebLogic Embedded LDAP in step 5.)

Valid entry: ou=Groups, dc=<domain>, dc=<extension>

Example: ou=Groups,dc=example,dc=com

- g. Click Next.
- In the "Existing Sites Password" screen (Figure 20–6), enter the user name and password for your installation's WebCenter Sites System Administrator account. (The default values are ContentServer/password.) Re-enter the password for verification, then click Next.

Figure 20–6	Existing Oracle	WebCenter Sites Password	I
-------------	-----------------	--------------------------	---

Εx	isting Oracle WebCenter Sites Password	
Installer	Oracle WebCer	nter Sites
	Existing Sites Password	
	Please enter the EXISTING Username which was used for Sites adm ContentServer	inistration:
	Please enter the EXISTING password.	
	Verify the password entered:	
	•••••	
	The existing user name has been detected as: ContentServer	
Exit	Previous	Next

**Note:** Make sure the information you enter here exactly matches the information used in your WebCenter Sites system. If you enter incorrect information, your WebCenter Sites system will not function properly.

8. In the "Sites Configuration" screen (Figure 20–7), enter the user name and password of your installation's WebCenter Sites Application Administrator account. (The default values are fwadmin/xceladmin). Re-enter the password for verification, then click Next.

or Or	acle WebCenter Sites Configuration
Installer	Oracle WebCenter Sites
	Sites Configuration
	Please Enter EXISTING Username to be used for Application administration: fwadmin
	Password to be used for the Sites administrator. Default password is 'xceladmin':
	(Must be at least 8 characters) Verify the password entered:
	••••••
Exit	Previous Next

Figure 20–7 Sites Configuration

**Note:** Make sure the information you enter here exactly matches the information used in your WebCenter Sites system. If you enter incorrect information, your WebCenter Sites system will not function properly.

**9.** In the next "Sites Configuration" screen (Figure 20–8), enter the password that will be assigned to all users on your WebCenter Sites system (except the WebCenter Sites System Administrator, WebCenter Sites Application Administrator, and DefaultReader accounts).

#### Figure 20–8 Sites Configuration

	Pracle WebCenter Sites Configuration	
Installer	Oracle WebCenter S	Sites
	Sites Configuration	
	Please Enter the password for all other users: All the users will be created to LDAP with this password.	_
	••••	
	(Must be at least 8 characters)	
	Verify the password entered:	_
	•••••	
Exit	Previous	

**Note:** For added security, WebCenter Sites passwords are one-way encrypted, which means they cannot be decrypted and duplicated in the LDAP server.

The password that you provide in this screen is a dummy password that will be assigned to all WebCenter Sites users (except the WebCenter Sites System Administrator, WebCenter Sites Application Administrator, and DefaultReader). At the end of the integration process, the users' original passwords must be re-assigned to them. Special instructions also apply to OpenLDAP with encrypted passwords. (Instructions for re-assigning passwords are given in Section 20.3, "Completing the Integration.")

Re-enter the password for verification, then click Next.

- **10.** In the "LDAP Integration Option" screen (Figure 20–9), do one of the following and click **Next**:
  - If you have write permissions to the LDAP server, select Automatic.

The integrator will write WebCenter Sites users, ACLs, roles, and sites to the LDAP server. (All users will be assigned the password you specified in step 9.)

- If you do not have write permissions to the LDAP server, select Manual.

**Note:** If you chose the **WebLogic** option and the WebCenter Sites application is not running on the same domain as the LDAP server, select **Manual**.

When the integrator completes its task, an LDAP user with write permissions will have to write the WebCenter Sites users, ACLs, roles, and sites to the LDAP server, either directly or via an ldif file.

**Note:** If you chose the **WebLogic** or **OpenLDAP** option, the integrator will create an ldif file in the <cs\_install\_dir>/ldif directory.

Figure 20–9 LDAP Integration Options

	LDAP Integration Options	<u> </u>
Installer	Oracle WebC	enter Sites
	<ul> <li>Manual : you will duplicate Sites users, roles, and ACLs in LD</li> <li>Automatic : Duplicate Sites users, roles, and ACLs in LDAP</li> </ul>	DAP
Exit	Previous	Next

**11.** In the "Settings Summary" screen (Figure 20–10), review the choices you have made. If you need to make changes, click the **Back** button to return to the appropriate screen. Otherwise, click **Next** to proceed with the integration.

#### Figure 20–10 Settings Summary

	Settings Summary	
Installer	Oracle WebCer	nter Sites
	Settings Summary	
	Installation Directory : /u01/CS/cs80_automation_destination Installation Type : Single server Shared Folder Path : /u01/CS/cs80_automation_destination/Share Host Name : server123.example.com Port Number : 7180 Platform Type : APPSERVER Application Server : Tomcat 6.0.32+/7.0.23+ Server Path : /u01/software/Apps/apache-tomcat-7.0.23/cs80_au Database : Oracle 11g R1/11g R2 - Thin Driver JNDI Data Source Name : csDataSource	ed utomation_de
Exit	Help Previous	Next

**12.** In the "Installation Progress" screen (Figure 20–11), click **Install** and wait for the integration process to complete.

	Installation Progress		
Installer		Oracle V	VebCenter Sites
Installation Click Install to begin the i	Progress nstallation process.		
	0%		
Client Log \ Server Log \			
[2012-03-20 10:12:09.056][CS.II	NSTALL][INFO] CSSetup.displayDiald	)gs() : Products to be instal	led in current run 1
Exit Help	Previous Drop Sche	ma Install	Test CS

Figure 20–11 Installation Progress

When the "Successful" pop-up dialog appears, the integrator's process is complete.

**13.** Test your LDAP integration by logging in to WebCenter Sites, then continue with the next step.

# 20.3 Completing the Integration

**Note:** To complete the steps in this section, you must have write permissions to the LDAP server.

If you chose the **Manual** integration option in the previous section, you will now load the LDAP server with WebCenter Sites users, ACLs, roles, and sites. Regardless of your choice, you will also reset the passwords of WebCenter Sites users.

#### To complete the WebCenter Sites-LDAP integration

1. If the LDAP integrator's **Automatic** option was chosen (in step 10), skip to step 3. Otherwise, continue with the next step.

- **2.** If the LDAP integrator's **Manual** option was chosen (in step 10), load the LDAP server with WebCenter Sites users, ACLs, roles, and sites, using one of the following options:
  - Import an ldif file.

**Note:** If you are integrating with WebLogic or OpenLDAP, an ldif file was created in the <cs\_install\_dir>/ldif directory by the integrator. If you chose the **WebLogic** option, and the WebCenter Sites application is not running on the same domain as the LDAP server, edit the ldif file and replace any instances of your CS WebLogic domain (Variables.CSInstallAdminDomainName) with your LDAP server domain.

For any other LDAP server, you must create your own ldif file.

When integrating WebCenter Sites with Active Directory LDAP provider, the integration script generates a .vbs file as well. After importing the LDIF file on the Active Directory Server, run the VBS script to set roles/ACLs and passwords.

- Write users, ACLs, roles, and sites directly to the LDAP server. For information about which users, ACLs, roles, and sites to write, see the following steps in Chapter 21, "Integrating Oracle WebCenter Sites with Hierarchical Schema LDAP Servers":
  - Section 21.1.3, "Step 3. Check the mail Attribute"
  - Section 21.1.4, "Step 4. Create LDAP User Groups (WebCenter Sites ACLs)"
  - Section 21.1.5, "Step 5. Create Required Users and Assign Them to LDAP Groups"
  - Section 21.1.6, "Step 6. Create Sites and Roles in the LDAP Server"
- 3. In the LDAP server, reset the passwords for all WebCenter Sites users as follows:
  - All LDAP servers: Set the users' passwords to their original values, except for the WebCenter Sites System Administrator, WebCenter Sites Application Administrator, and DefaultReader accounts.

If you do not change the passwords users will not be able to log in to WebCenter Sites with their originally assigned passwords.

 OpenLDAP with encrypted passwords: If you are using OpenLDAP and have configured it to use encrypted passwords, you must change the passwords for all WebCenter Sites users including passwords for the WebCenter Sites System Administrator, WebCenter Sites Application Administrator, and DefaultReader accounts.

This step is required because the LDAP integrator writes user passwords to the LDAP directory as plaintext, whereas OpenLDAP expects password hashes when password type is configured as SSHA. If you fail to complete this step, your WebCenter Sites system will not function properly.

For instructions on changing user passwords on supported LDAP servers, see Section 18.5, "Modifying User Passwords."

## 20.4 Post-Integration Steps: When CM Sites Have Not Been Created

If CM sites were not created on the given system, then after integrating WebCenter Sites with LDAP you will be unable to log in. The solution is to manually create the following new group entries in your LDAP server and assign fwadmin to each of these groups:

Management Site-SiteAdmin Management Site-GeneralAdmin Management Site-WorkflowAdmin Management Site-AdvancedUser

In addition, create the SitesUser group only for installations running in content management mode. This group enables the fwadmin user to access the WebCenter Sites Contributor interface:

Management Site-SitesUser

#### Example 20–1 Example LDIF

```
dn: cn=Management Site-SiteAdmin,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
```

dn: cn=Management Site-GeneralAdmin,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

dn: cn=Management Site-WorkflowAdmin,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

dn: cn=Management Site-AdvancedUser,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

dn: cn=Management Site-SitesUser,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

## 20.5 Testing the Integration

Test your LDAP-integrated system by opening a browser and entering the following URL:

http://<servername"://CatalogManager?ftcmd=login&username=ContentServer&password="
target="\_</pre>

blank"http://<servername>:<port>/<context>/CatalogManager?ftcmd=login&username=Con tentServer&password=<password>

#### where

<servername> is the name of the machine that is hosting the WebCenter Sites system

<port> is the port number of that server

<username> is user-defined (WebCenter Sites, in this example)

<password> is user-defined (password, in this example)

- If your browser displays a "Login Successful" message, you have integrated your LDAP plug-in correctly.
- If you do not see the "Login Successful" message, verify that you created the ContentServer user in the LDAP server, and that all properties are set to the correct values.

# Integrating Oracle WebCenter Sites with Hierarchical Schema LDAP Servers

This chapter provides instructions for integrating WebCenter Sites with hierarchical schema LDAP servers.

This chapter contains the following section:

- Section 21.1, "Integration Steps"
- Section 21.2, "Testing the Integration"

# 21.1 Integration Steps

To integrate with hierarchical schema LDAP, you will complete the following steps:

- Section 21.1.1, "Step 1. Configure the WebCenter Sites LDAP Connection Properties"
- Section 21.1.2, "Step 2. Configure the LDAP Server"
- Section 21.1.3, "Step 3. Check the mail Attribute"
- Section 21.1.4, "Step 4. Create LDAP User Groups (WebCenter Sites ACLs)"
- Section 21.1.5, "Step 5. Create Required Users and Assign Them to LDAP Groups"
- Section 21.1.6, "Step 6. Create Sites and Roles in the LDAP Server"
- Section 21.1.7, "Step 7. If You Completed Step 6"
- Section 21.1.8, "Step 8. Post-Integration Steps When CM Sites Have Not Been Created"

**Note:** In hierarchical schema LDAP, management of users and ACLs is required. Management of sites and roles is optional.

## 21.1.1 Step 1. Configure the WebCenter Sites LDAP Connection Properties

In this step, you will configure several properties in the WebCenter Sites .ini files to establish communication with LDAP. The files are:

- futuretense.ini
- dir.ini
- futuretense\_xcel.ini (optional, if you wish to manage sites and roles directly in the LDAP server).

### 21.1.1.1 A. Start the Property Editor

Execute the following scripts at the MS DOS prompt or in a UNIX shell:

- Windows: propeditor.bat, which is usually located in <cs\_install\_dir/>
- Unix: propeditor.sh, which is usually located in <\$HOME/cs\_install\_dir>

If you need detailed instructions on starting the Property Editor or you would like more information on the properties to be modified, see the *Oracle Fusion Middleware WebCenter Sites Property Files Reference*.

#### 21.1.1.2 B. Configure Properties in futuretense.ini

- 1. Open futuretense.ini in the Property Editor.
- 2. Select the Authentication tab.
- **3.** Set the following properties as shown in the table below:

Property (In futuretense.ini)	Value
cs.manageproperty	dir.ini
cs.manageUser	com.openmarket.directory.jndi.auth.JNDILogin

- 4. Select **File > Save** to save the values.
- 5. Select File > Close.

#### 21.1.1.3 C. Configure Properties in dir.ini

- **1.** Open dir.ini in the Property Editor.
- **2.** Select the **Attribute Names** tab and set the values for OpenLDAP properties as given in the following table:

Property (in dir.ini)	Value
cn	cn
loginattribute	cn
password	userPassword
uniquemember	uniquemember
username	uid

**3.** Select the **Global Data** tab and set the values for OpenLDAP properties as given in the following table:

Property (in dir.ini)	Value
groupparent	ou=groups,dc=companyname,dc=com
peopleparent	cn=People,dc=companyname,dc=com

**4.** Select the **Interface Implementations** tab and specify the following values for the following properties:

Property (in dir.ini)	Value
className.IDir	com.openmarket.directory.jndi.JNDIDir
className.IName	com.openmarket.directory.jndi.NameWrapper
className.IUserDir	com.openmarket.directory.jndi.LDAPUserDir

**5.** Select the **JNDI SPI Env** tab and specify the following values for the following properties:

Property (in dir.ini)	Value	
jndi.baseurl	ldap:// <servername:port></servername:port>	
jndi.connectAsUser	If WebCenter Sites can query the LDAP server for information as the user who is logged in to the WebCenter Sites interface and is making the query, set this property to true.	
	(The same user must be defined in the LDAP server.)	
	If WebCenter Sites must query the LDAP server as a specific user other than the user who is logged in to the WebCenter Sites interface, set this property to false. Then specify a valid user name/password combination with the jndi.login and jndi.password properties.	
	OpenLDAP value: false	
jndi.custom	(leave this value blank)	
jndi.login	If the jndi.connectAsUser property is set to false, specify the fully qualified, fully distinguished name of the user account that WebCenter Sites will use to query the LDAP server. (The same user must be defined in the LDAP server.)	
	<b>OpenLDAP</b> : cn=Manager,dc=companyname,dc=com	
	<b>Note:</b> jndi.connectAsUser determines how a WebCenter Sites user is connected to the LDAP server, and therefore defines the LDAP user to be either administrative or non-administrative.	
	<ul> <li>If jndi.connectAsUser=true, then WebCenter Sites defines the LDAP user to be the same one that is logged in to WebCenter Sites and connects that user to the LDAP server. For example, jndi.connectAsUser=true connects a WebCenter Sites administrator to LDAP as an administrator of the LDAP system.</li> </ul>	
	<ul> <li>If jndi.connectAsUser=false, then WebCenter Sites defines the LDAP user to be the one that is specified in the jndi.login property (in dir.ini) and connects that user to the LDAP server.</li> </ul>	
jndi.password	If the jndi.connectAsUser property is set to false, specify the password for the user account that WebCenter Sites will use to query the LDAP server.	
	This value is encrypted.	

**6.** Select the **Schema Defaults** tab and specify the following values for OpenLDAP (beginning with "OpenLDAP" in the Value column) and other properties as given in the following table:

Property (in dir.ini)	Value
defaultGroupAttrs	<b>OpenLDAP:</b> objectclass\=top&objectclass\=groupOfUniqueNames

Property (in dir.ini)	Value
defaultPeopleAttrs	<b>OpenLDAP:</b> objectclass\=top&objectclass\=Person&objectclass\=organiza tionalPerson
objectclassGroup	OpenLDAP: groupOfUniqueNames
objectclassPerson	OpenLDAP: organizationalPerson
requiredGroupAttrs	(leave this value blank)
requiredPeopleAttr	Specify all the required user attributes for this LDAP server.
S	For example: sn=Last Name&cn=Full Name

#### 7. Select File > Save.

8. Select File > Close.

#### 21.1.1.4 D. Configure Properties in futuretense\_xcel.ini

**Note:** If you do not wish to manage sites or roles in the LDAP server, skip the steps in this section.

- 1. Open futuretense\_xcel.ini in the Property Editor.
- 2. Select the Xcelerate tab.
- **3.** Set values for the following properties:

Property (in futuretense_xcel.ini)	Value	
xcelerate.usermanagerclass	The value depends on the type of deployment you are using.	
	Example value:	
	com.openmarket.xcelerate.user.UserManager	
xcelerate.rolemanagerclass	Example value:	
	com.openmarket.xcelerate.roles.RoleManager	

#### 4. Select the User Management tab.

5. Set values for the following properties:

Property (in futuretense_xcel.ini)	Value
xcelerate.sitesroot	Example value:ou=sites.dc= <domainname>.dc=com</domainname>
xcelerate.sitenameattr	Example value: ou
xcelerate.displayablenameattr	The name of the user attribute describing the display name, if different from the login name.

- 6. Select File > Save.
- 7. Select File > Close.
- 8. Stop and restart the application server for your changes to take effect.

## 21.1.2 Step 2. Configure the LDAP Server

- Configure the LDAP server to recognize the user that is specified in the jndi.connectAsUser and jndi.login properties (given in the table in step 5 of Section 21.1.1.3, "C. Configure Properties in dir.ini").
- **2.** Assign the same user correct permissions to connect to LDAP, to look up groups, to look up user attributes, and so on.

**Note:** Assign permissions judiciously. Once WebCenter Sites is LDAP-integrated, any WebCenter Sites administrator who connects to the LDAP server as a user with write permissions can still manage ACLs, users, sites, and roles from the WebCenter Sites interface. Some of the operations will propagate to the LDAP server, while other operations might result in errors.

For information about management operations in the WebCenter Sites interface and their effect on the LDAP server, see the appendix "Managing Users, Sites, and Roles in LDAP-Integrated Sites Systems" in the *Oracle Fusion Middleware WebCenter Sites Administrator's Guide*.

## 21.1.3 Step 3. Check the mail Attribute

Each WebCenter Sites user must have a mail attribute (an attribute that stores an e-mail address). Before proceeding, check that the LDAP server's user entries have a mail attribute. For information about the WebCenter Sites mail attribute, see the Oracle Fusion Middleware WebCenter Sites Administrator's Guide.

## 21.1.4 Step 4. Create LDAP User Groups (WebCenter Sites ACLs)

Use the tools provided by your LDAP server to create groups that correspond to WebCenter Sites ACLs. The required ACLs are listed in this section.

**Note:** Using ldif. You can create groups in the LDAP server by writing an ldif file that contains the groups specified in this step, and the user and group memberships in Section 21.1.5, "Step 5. Create Required Users and Assign Them to LDAP Groups." You can then import the ldif file into your user directory.

The method for importing the ldif file varies for each directory, but the structure of the file is standardized among LDAP servers. For a sample ldif file, see Chapter 22, "Reference: Sample LDIF for Hierarchical Schema LDAP."

**Naming conventions.** In the steps that follow, you will be duplicating WebCenter Sites users and ACLs (optionally, sites and roles) in the LDAP server. All names must be duplicated *exactly*, including case, spaces, and special characters.

#### 21.1.4.1 Default ACLs

The following list names the WebCenter Sites system default ACLs. You must create groups in the LDAP server whose names exactly match the ACL names below. For information about the access privileges that are granted by these ACLs, see the "System Defaults" appendix in the *Oracle Fusion Middleware WebCenter Sites* Administrator's Guide.

- Browser
- ContentEditor
- ElementEditor
- ElementReader
- PageEditor
- PageReader
- RemoteClient
- SiteGod
- TableEditor
- UserEditor
- UserReader
- Visitor
- VisitorAdmin
- xceladmin
- xceleditor
- xcelpublish

### 21.1.4.2 Web Services ACLs

If you are using web services, create an LDAP group for each of the following ACLs. A group name must *exactly* match the ACL name:

- WSAdmin
- WSEditor
- WSUser

For information about the access privileges granted by these ACLs (groups), see the "System Defaults" appendix in the *Oracle Fusion Middleware WebCenter Sites Administrator's Guide*.

#### 21.1.4.3 Custom ACLs

If any custom ACLs have been created in WebCenter Sites since its installation, duplicate the ACLs as groups in the LDAP server. Group names must *exactly* match the names of the ACLs.

## 21.1.5 Step 5. Create Required Users and Assign Them to LDAP Groups

In this step, you will duplicate the following users and their group memberships in the LDAP server:

- Section 21.1.5.1, "WebCenter Sites Default Users"
- Section 21.1.5.3, "Sample Site Users"
- Section 21.1.5.2, "Custom Users"

#### 21.1.5.1 WebCenter Sites Default Users

1. Table 21–1 lists default users of the WebCenter Sites application. Duplicate the default users in the LDAP server, making sure to name them *exactly* as shown in

#### Table 21–1.

2. Make the duplicated users members of the groups shown in Table 21–1.

Default User	Group Memberships (ACLs)
<i>ContentServer</i> (user that is created in the database during the WebCenter Sites installation)	Browser, ContentEditor, ElementEditor, ElementReader, PageEditor, PageReader, SiteGod, TableEditor, UserEditor, UserReader
fwadmin	Browser, ElementEditor, PageEditor, RemoteClient, TableEditor, UserEditor, UserReader, Visitor, VisitorAdmin, xceladmin, xceleditor
DefaultReader	Browser, Visitor

Table 21–1WebCenter Sites Default Users

#### 21.1.5.2 Custom Users

- 1. Duplicate in the LDAP server all of the WebCenter Sites active custom users (all users who are assigned to active WebCenter Sites CM sites). Name the users exactly as they are named in WebCenter Sites.
- **2.** Assign each custom user to the LDAP groups (created in Section 21.1.4.3, "Custom ACLs") that correspond to the user's ACLs in WebCenter Sites.

#### 21.1.5.3 Sample Site Users

If you installed sample sites, create the associated sample users in the LDAP server. (Procedures are identical to those for custom users.) For information about sample users and sample sites, see the *Oracle Fusion Middleware WebCenter Sites Administrator's Guide*.

## 21.1.6 Step 6. Create Sites and Roles in the LDAP Server

**Note:** If you are using a hybrid integration, the UserPublication table specifies which Roles are assigned to the user for each site. However, this table still contains all the pre-integrated data. To be able to log in, at least one user is required with the correct UserPublication table records for LDAP. For instance, for the fwadmin user, you must update the username to the LDAP dn.

Originally the username in the UserPublication table is stored as something like userid=1230987654321,ou=People, where 1230987654321 is the Id of the user in the SystemUsers table. The following records are required:

- Id = {unique number}
- username = "cn=fwadmin,ou=People,dc=fatwire,dc=com" (user's dn)
- acl = {the role to be assigned. For example, GeneralAdmin}
- pubid = {the Id of the site for which this user is assigned this Role}

In the absence of the above records, the user can log in, but a message is displayed that the user does not have access to any sites.

Once you have one user configured, you can use that user to assign roles to other users through the interface (as long as the user has the required Roles).

If you plan to use LDAP attribute mapping to manage sites and roles in your LDAP server, you will need to hierarchically order the sites and roles, as shown by the example in Figure 21–1 (system-defined roles are listed in Table 21–2). Continue with the steps in this section.

Figure 21–1 LDAP Hierarchies



Table 21–2 System Defined Roles

Role	Description
GeneralAdmin	Default system role for global WebCenter Sites administrators.
	Required for users who need access to the <b>Admin</b> tab (and all other possible functions) in the tree.
	<b>Note</b> : A user with the GeneralAdmin role must also have the xceladmin ACL in order to use any of the functions in the <b>Admin</b> tab.
SiteAdmin	Default system role for site administrators.
	Required for users who are administrators of selected sites and therefore need access to the <b>Site Admin</b> tab (which displays a subset of the functions in the <b>Admin</b> tab).
	Assign the SiteAdmin role to users who will manage, but not create, other site users.
	<b>Note</b> : A site user with the SiteAdmin role must also have the xceladmin ACL in order to use functions on the <b>Site Admin</b> tab.
WorkflowAdmin	Default system role for workflow administrators.
	Required for users who need access to the <b>Workflow</b> tab in the tree.
	<b>Note</b> : A user with the WorkflowAdmin role must also have the xceladmin ACL in order to use functions on the <b>Workflow</b> tab.
AdvancedUser	Grants WebCenter Sites users access to the WebCenter Sites Admin interface.
SitesUser	Grants WebCenter Sites users access to the WebCenter Sites Contributor interface.

To create a hierarchical schema, complete the following steps in the LDAP server:

- 1. Create an organizational unit for sites. For an example, see step 1 in Figure 21–1.
- 2. Create a site entry under the site's organizational unit:

Complete this step by duplicating the names of active WebCenter Sites CM sites exactly as they are named in the WebCenter Sites interface (**Admin** tab). For an example, see step 2 in Figure 21–1.

**Note:** If the sites you plan to use do not yet exist in WebCenter Sites, you can first create them in the LDAP server, then duplicate them (*with identical names, including case*) in WebCenter Sites.

**3.** Assign groups to each site:

Complete this step for each site by *exactly* duplicating the names of the WebCenter Sites roles that are assigned to the site. For an example, see step 3 in Figure 21–1.

When creating a group for a system default role, name the group to exactly match the role names listed here:

- GeneralAdmin (always assign this group to a site)
- SiteAdmin
- WorkFlowAdmin
- AdvancedUser
- SitesUser

**Note:** If the roles you plan to use do not yet exist in WebCenter Sites, you can first create them as groups in the LDAP server, then duplicate them as roles (*with identical names, including case*) in WebCenter Sites. For the list of system-defined roles, see Table 21–2.

**4.** Assign users to the groups. Name the users exactly as they are named in WebCenter Sites. For an example, see step 4 in Figure 21–1.

**Note:** If you are completing the flat schema manual integration process (Chapter 20), reset WebCenter Sites users' passwords. For instructions, see step 3 in Section 20.3, "Completing the Integration."

## 21.1.7 Step 7. If You Completed Step 6

- If in the previous step you created sites and roles in the LDAP server, but they do not exist in the WebCenter Sites database, create the same sites and roles in WebCenter Sites. Name them exactly as in the LDAP server. For instructions on creating sites and roles in the WebCenter Sites database, see the Oracle Fusion Middleware WebCenter Sites Administrator's Guide.
- **2.** Assign the users to their relevant sites. For instructions, see "Granting Users Access to a Site" in the *Oracle Fusion Middleware WebCenter Sites Administrator's Guide*.

### 21.1.8 Step 8. Post-Integration Steps When CM Sites Have Not Been Created

If CM sites were not created on the given system, then after integrating WebCenter Sites with LDAP you will be unable to log in. The solution is to manually create the following new group entries in your LDAP server and assign fwadmin to each of these groups:

Management Site-SiteAdmin Management Site-GeneralAdmin Management Site-WorkflowAdmin

In addition, create the SitesUser group only for installations running in content management mode. This group enables the fwadmin user to access the WebCenter Sites Contributor interface:

Management Site-SitesUser

See Example 21–1.

#### Example 21–1 Example LDIF

dn: cn=Management Site-SiteAdmin,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

dn: cn=Management Site-GeneralAdmin,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

dn: cn=Management Site-WorkflowAdmin,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

```
dn: cn=Management Site-SitesUser,ou=Groups,dc=fatwire,dc=com
objectClass: top
objectClass: groupOfUniqueNames
uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
```

# 21.2 Testing the Integration

Test your LDAP-integrated system by opening a browser and entering the following URL:

http://<servername"://CatalogManager?ftcmd=login&username=ContentServer&password="
target="\_
blank"http://<servername>:<port>/<context>/CatalogManager?ftcmd=login&username=Con

blank"http://<servername>:<port>/<context>/CatalogManager?itcmd=login&username=Con tentServer&password=<password

where

<servername> is the name of the machine hosting the WebCenter Sites system

<port> is the port number of that server

<username> is user-defined (ContentServer, in this example)

<password> is user-defined (password, in this example)

- If the browser displays a "Login Successful" message, you have integrated your LDAP plug-in correctly.
- If you do not see the "Login Successful" message, verify that you created the ContentServer user in the LDAP server, and that all properties are set to the correct values.

# Reference: Sample LDIF for Hierarchical Schema LDAP

This chapter contains a sample ldif file for LDAP servers with hierarchical schema.

# 22.1 Sample Idif File

The sample ldif file below defines users and groups for WebCenter Sites sample sites HelloAsetWorld, Burlington Financial, and GE Lighting. The file re-creates the system default users, sample site users, their ACLs, and their roles.

**Note:** The structure of the sample file below applies to any LDAP server using a hierarchical schema.

- 1. dn: dc=fatwire,dc=com
- 2. dc: fatwire
- 3. objectClass: dcObject
- 4. objectClass: organization
- 5. description: OpenLDAP test pre\_cs\_setup
- 6. o: Fatwire Software
- 7.
- 8. dn: cn=Manager, dc=fatwire,dc=com
- 9. objectClass: organizationalRole
- 10. cn: Manager
- 11.
- 12. dn: ou=People, dc=fatwire,dc=com
- 13. ou: People
- 14. objectClass: organizationalUnit
- **15.** objectClass: top
- 16.
- 17. dn: ou=Groups, dc=fatwire,dc=com
- 18. ou: Groups
- 19. objectClass: organizationalUnit
- **20.** objectClass: top
- 21.

Sample Idif File

22.	dn: cn=fwadmin_mine,ou=People, dc=fatwire,dc=com		
23.	telephoneNumber: (123) 123-4567		
24.	userPassword:: e1NTSEF9endxNDRoUStuU1NrOU84clJuTU5RSzBxTF1PdEN3azQ=		
25.	. objectClass: organizationalPerson		
26.	. objectClass: top		
27.	. description: admin user mine		
28.	. sn: fwadmin_nime		
29.	cn: fwadmin_mine		
30.			
31.	dn: cn=newgroupOfUniqueNames,ou=Groups, dc=fatwire,dc=com		
32.	objectClass: groupOfUniqueNames		
33.	objectClass: top		
34.	uniqueMember: cn=fwadmin_mine,ou=People,dc=fatwire,dc=com		
35.	cn: newgroupOfUniqueNames		
36.			
37.	dn: cn=Browser,ou=Groups, dc=fatwire,dc=com		
38.	objectClass: top		
39.	objectClass: groupOfUniqueNames		
40.	uniqueMember: cn=ContentServer,ou=People,dc=fatwire,dc=com		
41.	uniqueMember: cn=DefaultReader,ou=People,dc=fatwire,dc=com		
42.	uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com		
43.	uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com		
44.	uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com		
45.	uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com		
46.	uniqueMember: cn=Joe,ou=People,dc=fatwire,dc=com		
47.	uniqueMember: cn=Moe,ou=People,dc=fatwire,dc=com		
48.	uniqueMember: cn=user_designer,ou=People,dc=fatwire,dc=com		
49.	uniqueMember: cn=user_author,ou=People,dc=fatwire,dc=com		
50.	uniqueMember: cn=user_approver,ou=People,dc=fatwire,dc=com		
51.	uniqueMember: cn=user_checker,ou=People,dc=fatwire,dc=com		
52.	uniqueMember: cn=user_editor,ou=People,dc=fatwire,dc=com		
53.	uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com		
54.	uniqueMember: cn=mirroruser,ou=People,dc=fatwire,dc=com		
55.	uniqueMember: cn=user_marketer,ou=People,dc=fatwire,dc=com		
56.	uniqueMember: cn=user_pricer,ou=People,dc=fatwire,dc=com		
57.	uniqueMember: cn=user_analyst,ou=People,dc=fatwire,dc=com		
58.	uniqueMember: cn=user_expert,ou=People,dc=fatwire,dc=com		
59.	uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
60.	uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
61.	uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
62.	uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com		

**63.** uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com

64. uniqueMember: cn=BurlingtonFinancial-SparkContentUser, ou=Groups, dc=fatwire, dc=com 65. uniqueMember: cn=GE Lighting-SparkContentUser,ou=Groups,dc=fatwire,dc=com 66. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 67. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 68. uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com 69. uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 70. uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 71. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 72. uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com 73. uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com 74. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com 75. uniqueMember: cn=Napoleon,ou=People,dc=fatwire,dc=com 76. uniqueMember: cn=Arthur,ou=People,dc=fatwire,dc=com 77. uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com 78. uniqueMember: cn=Rose,ou=People,dc=fatwire,dc=com 79. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com 80. uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com 81. cn: Browser 82. 83. dn: cn=SiteGod,ou=Groups, dc=fatwire,dc=com 84. objectClass: top 85. objectClass: groupOfUniqueNames 86. uniqueMember: cn=ContentServer,ou=People,dc=fatwire,dc=com 87. cn: SiteGod 88. 89. dn: cn=ElementReader,ou=Groups, dc=fatwire,dc=com 90. objectClass: top 91. objectClass: groupOfUniqueNames 92. uniqueMember: cn=ContentServer,ou=People,dc=fatwire,dc=com 93. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 94. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com 95. uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com 96. uniqueMember: cn=Joe, ou=People, dc=fatwire, dc=com 97. uniqueMember: cn=Moe,ou=People,dc=fatwire,dc=com 98. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com 99. uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com 100. uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 101. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 102. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 103. uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com

**104.** uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com **105.** uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com **106.** uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com **107.** uniqueMember: cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc=com 108. uniqueMember: cn=GE Lighting-SparkContentUser, ou=Groups, dc=fatwire, dc=com 109. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 110. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **111.** uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com **112.** uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **113.** uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **114.** uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 115. uniqueMember: cn=Connie, ou=People, dc=fatwire, dc=com 116. uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com 117. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com 118. uniqueMember: cn=Napoleon,ou=People,dc=fatwire,dc=com 119. uniqueMember: cn=Arthur,ou=People,dc=fatwire,dc=com 120. uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com 121. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com 122. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com **123.** uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com 124. cn: ElementReader 125. 126. dn: cn=ElementEditor,ou=Groups, dc=fatwire,dc=com 127. objectClass: top 128. objectClass: groupOfUniqueNames 129. uniqueMember: cn=ContentServer,ou=People,dc=fatwire,dc=com 130. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 131. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 132. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 133. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com **134.** uniqueMember: cn=mirroruser,ou=People,dc=fatwire,dc=com **135.** uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com **136.** uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com 137. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 138. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 139. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 140. cn: ElementEditor 141. 142. dn: cn=PageReader,ou=Groups, dc=fatwire,dc=com 143. objectClass: top

144. objectClass: groupOfUniqueNames 145. uniqueMember: cn=ContentServer, ou=People, dc=fatwire, dc=com 146. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 147. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com 148. uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com 149. uniqueMember: cn=Joe, ou=People, dc=fatwire, dc=com **150.** uniqueMember: cn=Moe,ou=People,dc=fatwire,dc=com 151. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com 152. uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com 153. uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 154. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 155. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com **156.** uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com 157. uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com **158.** uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com 159. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com 160. uniqueMember: cn=BurlingtonFinancial-SparkContentUser, ou=Groups, dc=fatwire, dc=com 161. uniqueMember: cn=GE Lighting-SparkContentUser, ou=Groups, dc=fatwire, dc=com 162. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 163. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **164.** uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com **165.** uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **166.** uniqueMember: cn=Spark-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com 167. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 168. uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com 169. uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com 170. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com 171. uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com 172. uniqueMember: cn=Arthur, ou=People, dc=fatwire, dc=com 173. uniqueMember: cn=Martha, ou=People, dc=fatwire, dc=com 174. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com **175.** uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com 176. uniqueMember: cn=Mary, ou=People, dc=fatwire, dc=com 177. cn: PageReader 178. 179. dn: cn=PageEditor,ou=Groups, dc=fatwire,dc=com 180. objectClass: top **181.** objectClass: groupOfUniqueNames 182. uniqueMember: cn=ContentServer,ou=People,dc=fatwire,dc=com 183. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com

184. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com **185.** uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 186. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com **187.** uniqueMember: cn=mirroruser, ou=People, dc=fatwire, dc=com **188.** uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com 189. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com **190.** uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 191. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 192. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 193. cn: PageEditor 194. 195. dn: cn=UserReader,ou=Groups, dc=fatwire,dc=com 196. objectClass: top **197.** objectClass: groupOfUniqueNames 198. uniqueMember: cn=ContentServer, ou=People, dc=fatwire, dc=com 199. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 200. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 201. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com 202. uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com 203. uniqueMember: cn=Joe, ou=People, dc=fatwire, dc=com 204. uniqueMember: cn=Moe,ou=People,dc=fatwire,dc=com 205. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com **206.** uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com **207.** uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com **208.** uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 209. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 210. uniqueMember: cn=editor, ou=People, dc=fatwire, dc=com 211. uniqueMember: cn=mirroruser,ou=People,dc=fatwire,dc=com **212.** uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 213. uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com 214. uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com 215. uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com **216.** uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com 217. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com **218.** uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com **219.** uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 220. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com 221. uniqueMember: cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc=com 222. uniqueMember: cn=GE Lighting-SparkContentUser,ou=Groups,dc=fatwire,dc=com 223. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 224. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com

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225. uniqueMember:
    cn=BurlingtonFinancial-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com
226. uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com
227. uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com
228. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com
229. uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com
230. uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com
231. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com
232. uniqueMember: cn=Napoleon,ou=People,dc=fatwire,dc=com
233. uniqueMember: cn=Arthur,ou=People,dc=fatwire,dc=com
234. uniqueMember: cn=Martha, ou=People, dc=fatwire, dc=com
235. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com
236. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com
237. uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com
238. cn: UserReader
239.
240. dn: cn=UserEditor,ou=Groups, dc=fatwire,dc=com
241. objectClass: top
242. objectClass: groupOfUniqueNames
243. uniqueMember: cn=ContentServer,ou=People,dc=fatwire,dc=com
244. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
245. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com
246. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com
247. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com
248. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com
249. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com
250. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com
251. uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com
252. cn: UserEditor
253.
254. dn: cn=TableEditor,ou=Groups, dc=fatwire,dc=com
255. objectClass: top
256. objectClass: groupOfUniqueNames
257. uniqueMember: cn=ContentServer, ou=People, dc=fatwire, dc=com
258. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
259. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com
260. uniqueMember: cn=user_designer,ou=People,dc=fatwire,dc=com
261. uniqueMember: cn=mirroruser,ou=People,dc=fatwire,dc=com
262. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com
263. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com
264. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com
265. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com
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Sample Idif File

**266.** uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 267. uniqueMember: cn=Connie, ou=People, dc=fatwire, dc=com 268. uniqueMember: cn=Conrad, ou=People, dc=fatwire, dc=com 269. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com **270.** uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com 271. uniqueMember: cn=Arthur, ou=People, dc=fatwire, dc=com 272. uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com 273. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com 274. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com 275. uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com 276. cn: TableEditor 277. 278. dn: cn=ContentServer,ou=People, dc=fatwire,dc=com 279. userPassword:: cGFzc3dvcmO= 280. objectClass: top 281. objectClass: person **282.** objectClass: organizationalPerson 283. sn: ContentServer 284. cn: ContentServer 285. 286. dn: cn=DefaultReader,ou=People, dc=fatwire,dc=com 287. userPassword:: U29tZVJlYWRlcg== 288. objectClass: top 289. objectClass: person **290.** objectClass: organizationalPerson 291. sn: DefaultReader 292. cn: DefaultReader 293. 294. dn: cn=xceleditor,ou=Groups, dc=fatwire,dc=com 295. objectClass: top 296. objectClass: groupOfUniqueNames 297. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 298. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 299. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com **300.** uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com 301. uniqueMember: cn=Joe, ou=People, dc=fatwire, dc=com 302. uniqueMember: cn=Moe,ou=People,dc=fatwire,dc=com **303.** uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 304. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com **305.** uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com **306.** uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 307. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com

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308. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com
309. uniqueMember: cn=mirroruser, ou=People, dc=fatwire, dc=com
310. uniqueMember: cn=user_marketer,ou=People,dc=fatwire,dc=com
311. uniqueMember: cn=user_pricer,ou=People,dc=fatwire,dc=com
312. uniqueMember: cn=user_analyst,ou=People,dc=fatwire,dc=com
313. uniqueMember: cn=user_expert,ou=People,dc=fatwire,dc=com
314. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com
315. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com
316. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com
317. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com
318. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com
319. uniqueMember:
    cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc=com
320. uniqueMember: cn=GE Lighting-SparkContentUser, ou=Groups, dc=fatwire, dc=com
321. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com
322. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com
323. uniqueMember:
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324. uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com
325. uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com
326. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com
327. uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com
328. uniqueMember: cn=Conrad, ou=People, dc=fatwire, dc=com
329. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com
330. uniqueMember: cn=Napoleon,ou=People,dc=fatwire,dc=com
331. uniqueMember: cn=Arthur, ou=People, dc=fatwire, dc=com
332. uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com
333. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com
334. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com
335. uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com
336. cn: xceleditor
337.
338. dn: cn=xceladmin,ou=Groups, dc=fatwire,dc=com
339. objectClass: top
340. objectClass: groupOfUniqueNames
341. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
342. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com
343. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com
344. uniqueMember: cn=mirroruser, ou=People, dc=fatwire, dc=com
345. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com
346. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com
347. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com
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Sample Idif File

**348.** uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com **349.** uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com **350.** uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com 351. cn: xceladmin 352. 353. dn: cn=xcelpublish,ou=Groups, dc=fatwire,dc=com **354.** objectClass: top **355.** objectClass: groupOfUniqueNames 356. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 357. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 358. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com **359.** uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com **360.** uniqueMember: cn=Joe, ou=People, dc=fatwire, dc=com **361.** uniqueMember: cn=Moe, ou=People, dc=fatwire, dc=com 362. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 363. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com **364.** uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com **365.** uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 366. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 367. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 368. uniqueMember: cn=mirroruser,ou=People,dc=fatwire,dc=com 369. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com **370.** uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com **371.** uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com **372.** uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com 373. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com 374. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com 375. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 376. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 377. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com 378. uniqueMember: cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc=com **379.** uniqueMember: cn=GE Lighting-SparkContentUser, ou=Groups, dc=fatwire, dc=com **380.** uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com **381.** uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 382. uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 383. uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **384.** uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **385.** uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 386. uniqueMember: cn=Napoleon,ou=People,dc=fatwire,dc=com 387. cn: xcelpublish

388.		
<b>389.</b> dn: cn=Visitor,ou=Groups, dc=fatwire,dc=com		
<b>390.</b> objectClass: top		
<b>391.</b> objectClass: groupOfUniqueNames		
<b>392.</b> uniqueMember: cn=DefaultReader,ou=People,dc=fatwire,dc=com		
<b>393.</b> uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com		
<b>394.</b> uniqueMember: cn=user_designer,ou=People,dc=fatwire,dc=com		
<b>395.</b> uniqueMember: cn=user_author,ou=People,dc=fatwire,dc=com		
<b>396.</b> uniqueMember: cn=user_approver,ou=People,dc=fatwire,dc=com		
<b>397.</b> uniqueMember: cn=user_checker,ou=People,dc=fatwire,dc=com		
<b>398.</b> uniqueMember: cn=user_editor,ou=People,dc=fatwire,dc=com		
<b>399.</b> uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com		
<b>400.</b> uniqueMember: cn=user_marketer,ou=People,dc=fatwire,dc=com		
<b>401.</b> uniqueMember: cn=user_pricer,ou=People,dc=fatwire,dc=com		
<b>402.</b> uniqueMember: cn=mirroruser,ou=People,dc=fatwire,dc=com		
<b>403.</b> uniqueMember: cn=user_analyst,ou=People,dc=fatwire,dc=com		
<b>404.</b> uniqueMember: cn=user_expert,ou=People,dc=fatwire,dc=com		
<b>405.</b> uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
<b>406.</b> uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
<b>407.</b> uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
<b>408.</b> uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com		
<b>409.</b> uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com		
<pre>410. uniqueMember: cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc =com</pre>		
<b>411.</b> uniqueMember: cn=GE Lighting-SparkContentUser,ou=Groups,dc=fatwire,dc=com		
<b>412.</b> uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com		
<b>413.</b> uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com		
<b>414.</b> uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com		
<b>415.</b> uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com		
<b>416.</b> uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com		
<b>417.</b> uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com		
<b>418.</b> uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com		
<b>419.</b> uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com		
<b>420.</b> uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com		
<b>421.</b> uniqueMember: cn=Napoleon,ou=People,dc=fatwire,dc=com		
<b>422.</b> uniqueMember: cn=Arthur,ou=People,dc=fatwire,dc=com		
<b>423.</b> uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com		
<b>424.</b> uniqueMember: cn=Rose,ou=People,dc=fatwire,dc=com		
<b>425.</b> uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com		
<b>426.</b> uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com		
<b>427.</b> cn: Visitor		

428. 429. dn: cn=VisitorAdmin,ou=Groups, dc=fatwire,dc=com 430. objectClass: top **431.** objectClass: groupOfUniqueNames **432.** uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 433. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com **434.** uniqueMember: cn=mirroruser, ou=People, dc=fatwire, dc=com 435. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com **436.** uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com 437. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 438. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com **439.** uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 440. cn: VisitorAdmin 441. 442. dn: cn=RemoteClient,ou=Groups, dc=fatwire,dc=com 443. objectClass: top 444. objectClass: groupOfUniqueNames 445. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 446. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com 447. uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com 448. uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 449. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com **450.** uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com **451.** uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com **452.** uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com **453.** uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com **454.** uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com 455. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com 456. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com 457. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 458. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 459. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com **460.** uniqueMember: cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc=com 461. uniqueMember: cn=GE Lighting-SparkContentUser, ou=Groups, dc=fatwire, dc=com 462. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 463. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 464. uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com 465. uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **466.** uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 467. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com

**468.** uniqueMember: cn=Connie, ou=People, dc=fatwire, dc=com 469. uniqueMember: cn=Conrad, ou=People, dc=fatwire, dc=com **470.** uniqueMember: cn=Desiree, ou=People, dc=fatwire, dc=com 471. uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com 472. uniqueMember: cn=Arthur, ou=People, dc=fatwire, dc=com 473. uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com 474. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com 475. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com 476. uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com 477. cn: RemoteClient 478. 479. dn: cn=WSUser,ou=Groups, dc=fatwire,dc=com 480. objectClass: top 481. objectClass: groupOfUniqueNames 482. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 483. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com **484.** uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com **485.** uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 486. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 487. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com **488.** uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 489. uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com **490.** uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com **491.** uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com **492.** uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com 493. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com **494.** uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 495. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 496. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com 497. uniqueMember: cn=BurlingtonFinancial-SparkContentUser, ou=Groups, dc=fatwire, dc=com 498. uniqueMember: cn=GE Lighting-SparkContentUser, ou=Groups, dc=fatwire, dc=com 499. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 500. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 501. uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com 502. uniqueMember: cn=GE Lighting-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 503. uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 504. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 505. uniqueMember: cn=Connie, ou=People, dc=fatwire, dc=com 506. uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com 507. uniqueMember: cn=Desiree, ou=People, dc=fatwire, dc=com

Sample Idif File

508. uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com 509. uniqueMember: cn=Arthur, ou=People, dc=fatwire, dc=com 510. uniqueMember: cn=Martha, ou=People, dc=fatwire, dc=com 511. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com **512.** uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com 513. uniqueMember: cn=Mary,ou=People,dc=fatwire,dc=com 514. cn: WSUser 515. 516. dn: cn=WSEditor,ou=Groups, dc=fatwire,dc=com 517. objectClass: top 518. objectClass: groupOfUniqueNames 519. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 520. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com 521. uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com 522. uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 523. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 524. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 525. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 526. uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com 527. uniqueMember: cn=user\_analyst,ou=People,dc=fatwire,dc=com 528. uniqueMember: cn=user\_expert,ou=People,dc=fatwire,dc=com 529. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com 530. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com 531. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com 532. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com 533. uniqueMember: cn=HelloAssetWorld-SparkContentUser,ou=Groups,dc=fatwire,dc=com 534. uniqueMember: cn=BurlingtonFinancial-SparkContentUser,ou=Groups,dc=fatwire,dc=com 535. uniqueMember: cn=GE Lighting-SparkContentUser,ou=Groups,dc=fatwire,dc=com 536. uniqueMember: cn=Spark-SparkContentUser,ou=Groups,dc=fatwire,dc=com 537. uniqueMember: cn=HelloAssetWorld-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 538. uniqueMember: cn=BurlingtonFinancial-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com **539.** uniqueMember: cn=GE Lighting-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com 540. uniqueMember: cn=Spark-SparkDocumentUser,ou=Groups,dc=fatwire,dc=com 541. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 542. uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com 543. uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com 544. uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com 545. uniqueMember: cn=Napoleon, ou=People, dc=fatwire, dc=com 546. uniqueMember: cn=Arthur,ou=People,dc=fatwire,dc=com 547. uniqueMember: cn=Martha, ou=People, dc=fatwire, dc=com
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548. uniqueMember: cn=Rose, ou=People, dc=fatwire, dc=com
549. uniqueMember: cn=Mark,ou=People,dc=fatwire,dc=com
550. uniqueMember: cn=Mary, ou=People, dc=fatwire, dc=com
551. cn: WSEditor
552.
553. dn: cn=WSAdmin,ou=Groups, dc=fatwire,dc=com
554. objectClass: top
555. objectClass: groupOfUniqueNames
556. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
557. uniqueMember: cn=HelloAssetWorld-SparkAdmin,ou=Groups,dc=fatwire,dc=com
558. uniqueMember: cn=BurlingtonFinancial-SparkAdmin,ou=Groups,dc=fatwire,dc=com
559. uniqueMember: cn=GE Lighting-SparkAdmin,ou=Groups,dc=fatwire,dc=com
560. uniqueMember: cn=Spark-SparkAdmin,ou=Groups,dc=fatwire,dc=com
561. uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com
562. cn: WSAdmin
563.
564. dn: cn=fwadmin,ou=People, dc=fatwire,dc=com
565. userPassword:: eGNlbGFkbWlu
566. objectClass: top
567. objectClass: person
568. objectClass: organizationalPerson
569. sn: fwadmin
570. cn: fwadmin
571.
572.dn: cn=Analyzer,ou=Groups, dc=fatwire,dc=com
573. objectClass: top
574. objectClass: groupOfUniqueNames
575. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
576. cn: Analyzer
577.
578. dn: cn=HelloAssetWorld-HelloAuthor,ou=Groups, dc=fatwire,dc=com
579. objectClass: top
580. objectClass: groupOfUniqueNames
581. uniqueMember: cn=Joe, ou=People, dc=fatwire, dc=com
582. uniqueMember: cn=Moe, ou=People, dc=fatwire, dc=com
583. cn: HelloAssetWorld-HelloAuthor
584.
585. dn: cn=HelloAssetWorld-HelloDesigner,ou=Groups, dc=fatwire,dc=com
586. objectClass: top
587. objectClass: groupOfUniqueNames
588. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com
589. cn: HelloAssetWorld-HelloDesigner
```

590. **591.** dn: cn=HelloAssetWorld-HelloEditor,ou=Groups, dc=fatwire,dc=com 592. objectClass: top 593. objectClass: groupOfUniqueNames 594. uniqueMember: cn=Flo,ou=People,dc=fatwire,dc=com 595. cn: HelloAssetWorld-HelloEditor 596. 597. dn: cn=Coco,ou=People, dc=fatwire,dc=com 598. userPassword:: aGVsbG8= 599. objectClass: top 600. objectClass: person 601. objectClass: organizationalPerson 602. sn: Coco 603. cn: Coco 604. 605. dn: cn=HelloAssetWorld-GeneralAdmin,ou=Groups, dc=fatwire,dc=com 606. objectClass: top 607. objectClass: groupOfUniqueNames 608. uniqueMember: cn=Coco,ou=People,dc=fatwire,dc=com 609. uniqueMember: cn=Bobo, ou=People, dc=fatwire, dc=com 610. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 611. cn: HelloAssetWorld-GeneralAdmin 612. 613. dn: cn=Bobo,ou=People, dc=fatwire,dc=com 614. userPassword:: aGVsbG8= 615. objectClass: top 616. objectClass: person 617. objectClass: organizationalPerson 618. sn: Bobo 619. cn: Bobo 620. 621. dn: cn=HelloAssetWorld-WorkflowAdmin,ou=Groups, dc=fatwire,dc=com 622. objectClass: top 623. objectClass: groupOfUniqueNames 624. uniqueMember: cn=Bobo,ou=People,dc=fatwire,dc=com 625. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 626. cn: HelloAssetWorld-WorkflowAdmin 627. 628. dn: cn=Flo,ou=People, dc=fatwire,dc=com 629. userPassword:: aGVsbG8= 630. objectClass: top 631. objectClass: person

```
632. objectClass: organizationalPerson
633. sn: Flo
634. cn: Flo
635.
636. dn: cn=Joe, ou=People, dc=fatwire, dc=com
637. userPassword:: aGVsbG8=
638. objectClass: top
639. objectClass: person
640. objectClass: organizationalPerson
641. sn: Joe
642. cn: Joe
643.
644. dn: cn=Moe,ou=People, dc=fatwire,dc=com
645. userPassword:: aGVsbG8=
646. objectClass: top
647. objectClass: person
648. objectClass: organizationalPerson
649. sn: Moe
650. cn: Moe
651.
652.dn: cn=HelloAssetWorld-Designer,ou=Groups, dc=fatwire,dc=com
653. objectClass: top
654. objectClass: groupOfUniqueNames
655. cn: HelloAssetWorld-Designer
656.
657. dn: cn=HelloAssetWorld-Author,ou=Groups, dc=fatwire,dc=com
658. objectClass: top
659. objectClass: groupOfUniqueNames
660. cn: HelloAssetWorld-Author
661.
662. dn: cn=HelloAssetWorld-Editor,ou=Groups, dc=fatwire,dc=com
663. objectClass: top
664. objectClass: groupOfUniqueNames
665. cn: HelloAssetWorld-Editor
666.
667. dn: cn=HelloAssetWorld-Approver,ou=Groups, dc=fatwire,dc=com
668. objectClass: top
669. objectClass: groupOfUniqueNames
670. cn: HelloAssetWorld-Approver
671.
672. dn: cn=HelloAssetWorld-Checker,ou=Groups, dc=fatwire,dc=com
673. objectClass: top
```

674. objectClass: groupOfUniqueNames 675. cn: HelloAssetWorld-Checker 676. 677. dn: cn=user\_designer,ou=People, dc=fatwire,dc=com 678. userPassword:: dXNlcg== 679. objectClass: top 680. objectClass: person 681. objectClass: organizationalPerson 682. sn: user\_designer 683. cn: user\_designer 684. 685. dn: cn=BurlingtonFinancial-Designer, ou=Groups, dc=fatwire, dc=com 686. objectClass: top 687. objectClass: groupOfUniqueNames 688. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 689. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 690. cn: BurlingtonFinancial-Designer 691. 692. dn: cn=user\_author,ou=People, dc=fatwire,dc=com 693. userPassword:: dXNlcg== 694. objectClass: top 695. objectClass: person 696. objectClass: organizationalPerson 697. sn: user\_author 698. cn: user\_author 699. 700. dn: cn=BurlingtonFinancial-Author,ou=Groups, dc=fatwire,dc=com 701. objectClass: top 702. objectClass: groupOfUniqueNames 703. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com 704. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 705. cn: BurlingtonFinancial-Author 706. 707. dn: cn=user\_approver,ou=People, dc=fatwire,dc=com 708. userPassword:: dXNlcg== 709. objectClass: top 710. objectClass: person 711. objectClass: organizationalPerson 712. sn: user\_approver 713. cn: user\_approver 714.

715. dn: cn=BurlingtonFinancial-Approver,ou=Groups, dc=fatwire,dc=com

716. objectClass: top 717. objectClass: groupOfUniqueNames 718. uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com 719. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 720. cn: BurlingtonFinancial-Approver 721. 722.dn: cn=user\_checker,ou=People, dc=fatwire,dc=com 723. userPassword:: dXNlcg== 724. objectClass: top 725. objectClass: person 726. objectClass: organizationalPerson 727. sn: user\_checker 728. cn: user\_checker 729. 730. dn: cn=BurlingtonFinancial-Checker,ou=Groups, dc=fatwire,dc=com 731. objectClass: top 732. objectClass: groupOfUniqueNames 733. uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 734. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 735. cn: BurlingtonFinancial-Checker 736. 737. dn: cn=user\_editor,ou=People, dc=fatwire,dc=com 738. userPassword:: dXNlcg== 739. objectClass: top 740. objectClass: person 741. objectClass: organizationalPerson 742. sn: user\_editor 743. cn: user\_editor 744. 745. dn: cn=BurlingtonFinancial-Editor,ou=Groups, dc=fatwire,dc=com 746. objectClass: top 747. objectClass: groupOfUniqueNames 748. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 749. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 750. cn: BurlingtonFinancial-Editor 751. 752. dn: cn=BurlingtonFinancial-SiteAdmin,ou=Groups, dc=fatwire,dc=com 753. objectClass: top 754. objectClass: groupOfUniqueNames 755. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 756. cn: BurlingtonFinancial-SiteAdmin 757.

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758. dn: cn=BurlingtonFinancial-WorkflowAdmin,ou=Groups, dc=fatwire,dc=com 759. objectClass: top 760. objectClass: groupOfUniqueNames 761. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 762. cn: BurlingtonFinancial-WorkflowAdmin 763. 764. dn: cn=BurlingtonFinancial-GeneralAdmin,ou=Groups, dc=fatwire,dc=com 765. objectClass: top 766. objectClass: groupOfUniqueNames 767. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 768. cn: BurlingtonFinancial-GeneralAdmin 769. 770. dn: cn=editor,ou=People, dc=fatwire,dc=com 771. userPassword:: eGNlbGVkaXRvcg== 772. objectClass: top 773. objectClass: person 774. objectClass: organizationalPerson 775. sn: editor 776. cn: editor 777. 778. dn: cn=mirroruser,ou=People, dc=fatwire,dc=com 779. userPassword:: bWlycm9ydXNlcg== 780. objectClass: top 781. objectClass: person 782. objectClass: organizationalPerson 783. sn: mirroruser 784. cn: mirroruser 785. 786. dn: cn=GE Lighting-Designer,ou=Groups, dc=fatwire,dc=com 787. objectClass: top 788. objectClass: groupOfUniqueNames 789. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 790. uniqueMember: cn=user\_designer,ou=People,dc=fatwire,dc=com 791. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 792. uniqueMember: cn=editor, ou=People, dc=fatwire, dc=com 793. cn: GE Lighting-Designer 794. 795. dn: cn=GE Lighting-SiteAdmin, ou=Groups, dc=fatwire, dc=com 796. objectClass: top 797. objectClass: groupOfUniqueNames 798. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 799. cn: GE Lighting-SiteAdmin

800. 801. dn: cn=GE Lighting-WorkflowAdmin,ou=Groups, dc=fatwire,dc=com 802. objectClass: top 803. objectClass: groupOfUniqueNames 804. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 805. cn: GE Lighting-WorkflowAdmin 806. 807. dn: cn=GE Lighting-GeneralAdmin,ou=Groups, dc=fatwire,dc=com 808. objectClass: top 809. objectClass: groupOfUniqueNames 810. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com 811. cn: GE Lighting-GeneralAdmin 812. 813. dn: cn=GE Lighting-Checker, ou=Groups, dc=fatwire, dc=com 814. objectClass: top 815. objectClass: groupOfUniqueNames 816. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 817. uniqueMember: cn=user\_checker,ou=People,dc=fatwire,dc=com 818. cn: GE Lighting-Checker 819. 820. dn: cn=GE Lighting-Editor,ou=Groups, dc=fatwire,dc=com 821. objectClass: top 822. objectClass: groupOfUniqueNames 823. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 824. uniqueMember: cn=user\_editor,ou=People,dc=fatwire,dc=com 825. cn: GE Lighting-Editor 826. 827. dn: cn=GE Lighting-Author,ou=Groups, dc=fatwire,dc=com 828. objectClass: top 829. objectClass: groupOfUniqueNames 830. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 831. uniqueMember: cn=user\_author,ou=People,dc=fatwire,dc=com 832. cn: GE Lighting-Author 833. 834. dn: cn=GE Lighting-Approver,ou=Groups, dc=fatwire,dc=com 835. objectClass: top 836. objectClass: groupOfUniqueNames 837. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 838. uniqueMember: cn=user\_approver,ou=People,dc=fatwire,dc=com 839. cn: GE Lighting-Approver 840. 841. dn: cn=HelloAssetWorld-Pricer,ou=Groups, dc=fatwire,dc=com

842. objectClass: top 843. objectClass: groupOfUniqueNames 844. cn: HelloAssetWorld-Pricer 845. 846. dn: cn=BurlingtonFinancial-Pricer,ou=Groups, dc=fatwire,dc=com 847. objectClass: top 848. objectClass: groupOfUniqueNames 849. cn: BurlingtonFinancial-Pricer 850. 851. dn: cn=GE Lighting-Pricer,ou=Groups, dc=fatwire,dc=com 852. objectClass: top 853. objectClass: groupOfUniqueNames 854. uniqueMember: cn=user\_pricer,ou=People,dc=fatwire,dc=com 855. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com 856. cn: GE Lighting-Pricer 857. 858.dn: cn=user\_marketer,ou=People, dc=fatwire,dc=com 859. userPassword:: dXNlcg== 860. objectClass: top 861. objectClass: person **862.** objectClass: organizationalPerson 863. sn: user\_marketer 864. cn: user\_marketer 865. 866. dn: cn=user\_pricer,ou=People, dc=fatwire,dc=com 867. userPassword:: dXNlcg== 868. objectClass: top 869. objectClass: person 870. objectClass: organizationalPerson 871. sn: user\_pricer 872. cn: user\_pricer 873. 874. dn: cn=HelloAssetWorld-Marketer, ou=Groups, dc=fatwire, dc=com 875. objectClass: top 876. objectClass: groupOfUniqueNames 877. cn: HelloAssetWorld-Marketer 878. 879. dn: cn=BurlingtonFinancial-Marketer, ou=Groups, dc=fatwire, dc=com 880. objectClass: top 881. objectClass: groupOfUniqueNames 882. uniqueMember: cn=user\_marketer,ou=People,dc=fatwire,dc=com 883. cn: BurlingtonFinancial-Marketer

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884.
885. dn: cn=GE Lighting-Marketer, ou=Groups, dc=fatwire, dc=com
886. objectClass: top
887. objectClass: groupOfUniqueNames
888. uniqueMember: cn=editor,ou=People,dc=fatwire,dc=com
889. uniqueMember: cn=user_marketer,ou=People,dc=fatwire,dc=com
890. cn: GE Lighting-Marketer
891.
892.dn: cn=HelloAssetWorld-Analyst,ou=Groups, dc=fatwire,dc=com
893. objectClass: top
894. objectClass: groupOfUniqueNames
895. cn: HelloAssetWorld-Analyst
896.
897. dn: cn=BurlingtonFinancial-Analyst,ou=Groups, dc=fatwire,dc=com
898. objectClass: top
899. objectClass: groupOfUniqueNames
900. uniqueMember: cn=user_analyst,ou=People,dc=fatwire,dc=com
901. cn: BurlingtonFinancial-Analyst
902.
903. dn: cn=GE Lighting-Analyst,ou=Groups, dc=fatwire,dc=com
904. objectClass: top
905. objectClass: groupOfUniqueNames
906. cn: GE Lighting-Analyst
907.
908. dn: cn=HelloAssetWorld-Expert,ou=Groups, dc=fatwire,dc=com
909. objectClass: top
910. objectClass: groupOfUniqueNames
911. cn: HelloAssetWorld-Expert
912.
913. dn: cn=BurlingtonFinancial-Expert,ou=Groups, dc=fatwire,dc=com
914. objectClass: top
915. objectClass: groupOfUniqueNames
916. uniqueMember: cn=user_expert,ou=People,dc=fatwire,dc=com
917. cn: BurlingtonFinancial-Expert
918.
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921. objectClass: groupOfUniqueNames
922. cn: GE Lighting-Expert
923.
924. dn: cn=user_analyst,ou=People, dc=fatwire,dc=com
925. userPassword:: dXNlcg==
```

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```
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970.
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973. objectClass: groupOfUniqueNames
974. cn: GE Lighting-SparkContentUser
975.
976.dn: cn=Spark-SparkContentUser,ou=Groups, dc=fatwire,dc=com
977. objectClass: top
978. objectClass: groupOfUniqueNames
979. uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
980. cn: Spark-SparkContentUser
981.
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983. objectClass: top
984. objectClass: groupOfUniqueNames
985. cn: HelloAssetWorld-SparkDocumentUser
986.
987. dn: cn=BurlingtonFinancial-SparkDocumentUser,ou=Groups, dc=fatwire,dc=com
988. objectClass: top
989. objectClass: groupOfUniqueNames
990. cn: BurlingtonFinancial-SparkDocumentUser
991.
992. dn: cn=GE Lighting-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com
993. objectClass: top
994. objectClass: groupOfUniqueNames
995. cn: GE Lighting-SparkDocumentUser
996.
997. dn: cn=Spark-SparkDocumentUser, ou=Groups, dc=fatwire, dc=com
998. objectClass: top
999. objectClass: groupOfUniqueNames
1000.uniqueMember: cn=fwadmin,ou=People,dc=fatwire,dc=com
1001.cn: Spark-SparkDocumentUser
1002.
1003.dn: cn=Spark-WorkflowAdmin,ou=Groups, dc=fatwire,dc=com
1004.objectClass: top
1005.objectClass: groupOfUniqueNames
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1007.cn: Spark-WorkflowAdmin
1008.
1009.dn: cn=Spark-SiteAdmin,ou=Groups, dc=fatwire,dc=com
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Sample Idif File

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1136.cn: HelloAssetWorld-ArtworkAuthor 1137. 1138.dn: cn=BurlingtonFinancial-ArtworkAuthor, ou=Groups, dc=fatwire, dc=com 1139.objectClass: top **1140.**objectClass: groupOfUniqueNames 1141.cn: BurlingtonFinancial-ArtworkAuthor 1142. 1143.dn: cn=GE Lighting-ArtworkAuthor,ou=Groups, dc=fatwire,dc=com 1144.objectClass: top 1145.objectClass: groupOfUniqueNames 1146.cn: GE Lighting-ArtworkAuthor 1147. 1148.dn: cn=Spark-ArtworkAuthor,ou=Groups, dc=fatwire,dc=com 1149.objectClass: top 1150.objectClass: groupOfUniqueNames 1151.cn: Spark-ArtworkAuthor 1152. 1153.dn: cn=FirstSiteII-ArtworkAuthor,ou=Groups, dc=fatwire,dc=com 1154.objectClass: top **1155.**objectClass: groupOfUniqueNames 1156.uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 1157.uniqueMember: cn=Desiree,ou=People,dc=fatwire,dc=com 1158.uniqueMember: cn=Arthur,ou=People,dc=fatwire,dc=com 1159.cn: FirstSiteII-ArtworkAuthor 1160. 1161.dn: cn=HelloAssetWorld-ArtworkEditor,ou=Groups, dc=fatwire,dc=com 1162.objectClass: top **1163.**objectClass: groupOfUniqueNames 1164.cn: HelloAssetWorld-ArtworkEditor 1165. 1166.dn: cn=BurlingtonFinancial-ArtworkEditor,ou=Groups, dc=fatwire,dc=com 1167.objectClass: top **1168.**objectClass: groupOfUniqueNames 1169.cn: BurlingtonFinancial-ArtworkEditor 1170. 1171.dn: cn=GE Lighting-ArtworkEditor,ou=Groups, dc=fatwire,dc=com 1172.objectClass: top 1173.objectClass: groupOfUniqueNames 1174.cn: GE Lighting-ArtworkEditor 1175. 1176.dn: cn=Spark-ArtworkEditor,ou=Groups, dc=fatwire,dc=com 1177.objectClass: top

1178.objectClass: groupOfUniqueNames **1179.**cn: Spark-ArtworkEditor 1180. 1181.dn: cn=FirstSiteII-ArtworkEditor,ou=Groups, dc=fatwire,dc=com **1182.**objectClass: top **1183.**objectClass: groupOfUniqueNames 1184.uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 1185.uniqueMember: cn=Martha,ou=People,dc=fatwire,dc=com **1186.**cn: FirstSiteII-ArtworkEditor 1187. 1188.dn: cn=HelloAssetWorld-ContentAuthor,ou=Groups, dc=fatwire,dc=com 1189.objectClass: top **1190.**objectClass: groupOfUniqueNames 1191.cn: HelloAssetWorld-ContentAuthor 1192. 1193.dn: cn=BurlingtonFinancial-ContentAuthor,ou=Groups, dc=fatwire,dc=com 1194.objectClass: top **1195.**objectClass: groupOfUniqueNames 1196.cn: BurlingtonFinancial-ContentAuthor 1197. 1198.dn: cn=GE Lighting-ContentAuthor, ou=Groups, dc=fatwire, dc=com 1199.objectClass: top **1200.**objectClass: groupOfUniqueNames 1201.cn: GE Lighting-ContentAuthor 1202. 1203.dn: cn=Spark-ContentAuthor, ou=Groups, dc=fatwire, dc=com 1204.objectClass: top 1205.objectClass: groupOfUniqueNames 1206.cn: Spark-ContentAuthor 1207. 1208.dn: cn=FirstSiteII-ContentAuthor,ou=Groups, dc=fatwire,dc=com 1209.objectClass: top **1210.**objectClass: groupOfUniqueNames 1211.uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 1212.uniqueMember: cn=Conrad,ou=People,dc=fatwire,dc=com 1213.cn: FirstSiteII-ContentAuthor 1214. 1215.dn: cn=HelloAssetWorld-ContentEditor,ou=Groups, dc=fatwire,dc=com 1216.objectClass: top **1217.**objectClass: groupOfUniqueNames 1218.cn: HelloAssetWorld-ContentEditor 1219.

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Sample Idif File

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1323.
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1336.objectClass: groupOfUniqueNames
1337.cn: GE Lighting-DocumentEditor
1338.
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1340.objectClass: top
1341.objectClass: groupOfUniqueNames
1342.cn: Spark-DocumentEditor
1343.
1344.dn: cn=FirstSiteII-DocumentEditor,ou=Groups, dc=fatwire,dc=com
1345.objectClass: top
```

**1346.**objectClass: groupOfUniqueNames 1347.uniqueMember: cn=firstsite,ou=People,dc=fatwire,dc=com 1348.uniqueMember: cn=Connie,ou=People,dc=fatwire,dc=com **1349.**cn: FirstSiteII-DocumentEditor 1350. 1351.dn: cn=Connie,ou=People, dc=fatwire,dc=com 1352.userPassword:: Zmlyc3RzaXRl **1353.**objectClass: top 1354.objectClass: person 1355.objectClass: organizationalPerson 1356.sn: Connie 1357.cn: Connie 1358. 1359.dn: cn=Conrad,ou=People, dc=fatwire,dc=com 1360.userPassword:: Zmlyc3RzaXRl 1361.objectClass: top **1362.**objectClass: person **1363.**objectClass: organizationalPerson 1364.sn: Conrad 1365.cn: Conrad 1366. 1367.dn: cn=Desiree,ou=People, dc=fatwire,dc=com 1368.userPassword:: Zmlyc3RzaXRl 1369.objectClass: top **1370.**objectClass: person **1371.**objectClass: organizationalPerson 1372.sn: Desiree 1373.cn: Desiree 1374. 1375.dn: cn=Napoleon,ou=People, dc=fatwire,dc=com **1376.**userPassword:: Zmlyc3RzaXRl 1377.objectClass: top 1378.objectClass: person 1379.objectClass: organizationalPerson 1380.sn: Napoleon 1381.cn: Napoleon 1382. 1383.dn: cn=Arthur,ou=People, dc=fatwire,dc=com 1384.userPassword:: Zmlyc3RzaXRl 1385.objectClass: top **1386.**objectClass: person 1387.objectClass: organizationalPerson

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1394.objectClass: person
1395.objectClass: organizationalPerson
1396.sn: Martha
1397.cn: Martha
1398.
1399.dn: cn=Rose, ou=People, dc=fatwire, dc=com
1400.userPassword:: Zmlyc3RzaXRl
1401.objectClass: top
1402.objectClass: person
1403.objectClass: organizationalPerson
1404.sn: Rose
1405.cn: Rose
1406.
1407.dn: cn=Mark,ou=People, dc=fatwire,dc=com
1408.userPassword:: Zmlyc3RzaXRl
1409.objectClass: top
1410.objectClass: person
1411.objectClass: organizationalPerson
1412.sn: Mark
1413.cn: Mark
1414.
1415.dn: cn=Mary,ou=People, dc=fatwire,dc=com
1416.userPassword:: Zmlyc3RzaXRl
1417.objectClass: top
1418.objectClass: person
1419.objectClass: organizationalPerson
1420.sn: Mary
1421.cn: Mary
```

# Part VI

# Installing and Configuring Authentication Services

WebCenter Sites can be integrated with supported applications that provide authentication services and single sign-on.

Part VI contains the following chapters:

- Chapter 23, "Integrating Oracle Access Manager with Oracle WebCenter Sites"
- Chapter 24, "Enabling Community-Gadgets to Communicate with OAM-Integrated WebCenter Sites"
- Chapter 25, "Integrating Oracle Access Manager with Oracle WebCenter Sites: Site Capture"

# Integrating Oracle Access Manager with Oracle WebCenter Sites

Use this chapter to integrate Oracle Access Manager (OAM) with Oracle WebCenter Sites installations.

This chapter contains the following sections:

- Section 23.1, "Overview"
- Section 23.2, "OAM Integration Prerequisites"
- Section 23.3, "Integrating OAM with Oracle WebCenter Sites"
- Section 23.4, "Integrating OAM with Oracle WebCenter Sites: Satellite Server"

# 23.1 Overview

This section contains the following topics:

- Section 23.1.1, "Integration Components"
- Section 23.1.2, "Flow for Browser Requests"
- Section 23.1.3, "REST Service Flow"

#### 23.1.1 Integration Components

Integration with Oracle Access Manager requires replacement of the Single Sign-On (SSO) authentication plug-in classes for the WebCenter Sites application, and the addition of a token authority servlet for REST client authentication. Optionally the WebCenter Sites challenge (login) page can be deployed.

**Note:** When integrated with WebCenter Sites systems running in content management (development) mode, Oracle Access Manager, is used for browser and REST authentication. On production systems (running in delivery mode), OAM is used for management authentication, but not for website visitors.

Each component is described more fully in the following:

 SSO authentication plug-in classes are delivered in the wem-sso-api-oam-11.1.1.8.0.jar that is included with the WebCenter Sites product. There are three primary classes included in this JAR that must be configured to load with the WebCenter Sites application when it starts.

- **a.** OAMFilter provides recognition of an authenticated user (either by WebLogic Server (WLS) perimeter security or REST credential token) before allowing access to a protected resource.
- **b.** OAMProvider contains the JAVA API which is used by REST client programs to obtain an authenticated credential before requesting a resource from the WebCenter Sites application. It also contains methods used internally to authenticate REST credentials by OAMFilter.
- **c.** OAMListener is a session filter that monitors the creation and termination of HTTP sessions to facilitate cleanup of session related cached information.
- **2.** The token authority servlet is delivered in the oamtoken.war file. It is an OAM AccessGate that will either authenticate a user against the OAM server or check, upon request, that an OAM authenticated session is still valid.
- **3.** The WebCenter Sites challenge page is optional and is delivered in the oamlogin.war file. The servlet within oamlogin.war provides a custom branded challenge request when OAM must obtain credentials to authenticate a user. It is included to provide a replacement of the standard WebCenter Sites branded login page that is installed with the Central Authentication Service (CAS). This page is called directly by OAM and must be specifically configured within the OAM Authentication Scheme used to protect WebCenter Sites resources.

Installation of these components and the configuration of the Oracle Access Manager must be done to complete an operational OAM integration with WebCenter Sites.

Much of OAM integration regards the configuration of the elements of OAM itself. OAM configuration is done mainly within the OAM Administrative console, as well as across several WebCenter Sites server configuration files, and the Oracle HTTP Server (OHS) configuration files. The Host Identifiers, URL Resources, Domain policies, and OAM Agents must be properly configured to achieve proper operation. The WebCenter Sites challenge screen is supplied as an independent HTTP Servlet. You have the choice to use the WebCenter Sites challenge screen, the default OAM challenge screen, or a custom challenge screen through the Authentication Scheme attached to the configured policies.Control over all policies for authentication and authorization through the OAM Administrator console provides extensive configuration capabilities.

## 23.1.2 Flow for Browser Requests

OAM Integration components and process flow for logging in to and out of WebCenter Sites is shown in Figure 23–1. The core integration revolves around the OAMFilter and OAMProvider classes. These classes are injected into the WebCenter Sites Web application by Spring initialization to replace CAS equivalents which are not necessary with OAM. There are no internal changes to the WebCenter Sites application to accommodate this integration.



Figure 23–1 OAM Flowchart

#### 23.1.2.1 Login Processing

All browser access is directed through the standard OHS WebGate and uses perimeter security provided by the WLS container. The WebGate functions as a reverse proxy, checking protection policies through Access Manager. It issues the challenge/login form when necessary. A request is never passed directly to the WLS container but always passes through the WebGate to ensure authentication and authorization are satisfied. When a valid request is received from the WebGate, the WLS container presents an identity assertion to the OAM filter. This assertion will identify the authenticated user and cause the information for that user to be fetched from the WebCenter Sites SystemUsers table. User information consists of the user ID, name, and ACL needed to prepare the proper internal assertion for reference within the WebCenter Sites application. The user name in the WebCenter Sites SystemUsers table and in the Oracle Internet Directory (or LDAP directory) must match exactly for authentication to work properly. Although OAM includes authorization protection as well as authentication, WebCenter Sites uses only OAM authentication and does not rely on full OAM authorization.

When the OAMFilter receives control, the request has already been authenticated by the WebGate and an OAM Identity Assertion created by WLS perimeter security. This assertion provides the authenticated user's name which is used to find that user information in the WebCenter Sites SystemUsers table. The information thus obtained is used to create an internal assertion used within the WebCenter Sites application.

After an OAM Identity Assertion has been converted into an internal Assertion, the internal Assertion is added to the HTTP Session object. This allows subsequent requests to access URLs (resources) directly for the lifetime of the application session. However, the WebGate provides overriding protection based upon the OAM security policies in effect. If the OAM user session (different from HTTP session) expires, then the user will be required to re-authenticate.

The creation of OAM Identity Assertions is required by default. However, there is a possibility of an OAM Identity Assertion invoking a performance penalty. By default,

the OAMFilter expects to see OAM Assertions to counter the possibility of a browser accessing WebCenter Sites directly from the Internet. This requirement can be avoided by a simple configuration change and the establishment of a trust relationship between the WebLogic Server and the OHS WebGate. This trust relationship is created by defining a connection filter in WebLogic that only accepts requests from a trusted source (the OHS server).

#### 23.1.2.2 SSO and Logoff

The WebGate manages the OAM cookies which govern SSO. This is transparent to the WebCenter Sites OAM Filter and provides a seamless integration with other Oracle applications.

When WebCenter Sites logoff is requested, the standard OAM logoff facility is invoked by the OAM logoff URL which includes an end\_URL parameter. The end\_URL parameter establishes the next page that must appear after OAM finishes all logoff activities. OAM removes the SSO cookies, terminates the OAM session, and calls the registered logout success URL. The logout success URL is recognized by the OAM Filter to invalidate the HTTP session. After OAM logout has completed all its work it redirects the browser back to the WebCenter Sites welcome URL, specified through the end\_URL parameter. This triggers a new challenge for the user to supply login credentials. The Logout URL settings are defined in the OHS WebGate configuration and the end\_URL is defined in the SSOConfig.xml file.

### 23.1.3 REST Service Flow

REST processing follows a slightly different flow. This is also illustrated in Figure 23–1. The REST client uses the OAM Provider API to obtain a service ticket from the Token Authority. This ticket is required as a parameter in the REST request to grant access to a resource on the WebCenter Sites server. The TokenAuthority functions as an OAM Access Gate. It will authenticate the user against the policies defined for the REST endpoint URL. When a proper user name and password has passed authentication, the REST client is issued a service ticket to be used when requesting the resource. The TokenAuthority is an HTTP Servlet and it is recommended it be secured through SSL. The TokenAuthority performs three services:

- Request Takes a user name/password combination and endpoint URL (as the resource) and authenticate through the OAM SDK. The result is an OAM UserSession for the request. The associated session token is extracted from the UserSession and retained in a cache keyed by UUID. The UUID is returned to the requestor to be used as the service request ticket associated with the OAM Session.
- Validate Given a request ticket, the associated session token is retrieved from the cache and the authenticated user name is returned. The OAM UserSession is checked to make sure it remains valid. If the session is no longer valid or indicates that the user associated with the ticket is no longer logged in then a 'not authorized' 403 status is returned.
- Invalidate Given a request ticket, the associated session token is retrieved from the cache, removed, and then converted into an OAM UserSession object which is immediately terminated. This invalidates the OAM session and occurs after a request ticket has been used.

When the OAM Filter receives a REST request it must always be accompanied by a parameter that supplies a request ticket. This ticket is validated through the OAM Provider (the SSO Provider calls the Token Authority) before access to the resource is granted. A normal ticket request is for one time only and its maximum lifetime is dictated by the OAM session timeout. For a valid ticket, the OAM user session is

invalidated immediately and access to the resource is allowed only once. A multi-ticket is handled in a similar manner but the ticket is cached locally so it may be reused by the REST client for a finite amount of time.

The published REST API remains the same. REST client programming is not affected by this integration and works exactly as it did with the CAS provider. Internally, the API dynamically instantiates the required classes based on which authentication provider is being used. Remote REST client programs are written in JAVA and require the wem-sso-api-oam-11.1.1.8.0.jar for compilation and execution.

The REST client goes directly to the WebCenter Sites server directly as shown in Figure 23–1. The client has the choice of two possible endpoints. It can go directly to the WebCenter Sites application as shown in the figure or pass through the OHS WebGate. A policy is defined for the latter case which allows this endpoint to be used. The decision of which endpoint to use is a choice dependent upon performance and/or security concerns.

# 23.2 OAM Integration Prerequisites

#### Installing OAM Components

Before you set up Oracle Access Manager integration, the Oracle components needed to support the environment must be installed and working properly. If you already have OAM installed and running at the support level specified in the *Oracle WebCenter Sites Certification Matrix* and in this document then you can disregard this section and skip to Section 23.3, "Integrating OAM with Oracle WebCenter Sites." Otherwise, continue with the steps below.

**Note:** Choose the list of system components below that corresponds with the version of OAM that will be installed. Install the system components in the order given. The steps as listed are not comprehensive steps, and should be treated as guidelines.

Ensure that the proper versions are being used. The Oracle installer for each package requires that particular versions of related components are installed on the system. If version requirements are not observed then the installer will not allow a specific installation to continue. Each listed package includes one or more links to additional documentation.

All components listed can be downloaded from the Oracle Software Delivery Cloud site.

#### OAM 11.1.1.5.0 Components

**1.** Oracle Database 11.2.0

See Section 23.2.1, "Oracle Database 11g - Version 11.2.0."

2. Oracle Fusion Middleware Repository Creation Utility 11.1.1.5.0

See Section 23.2.2, "Oracle Fusion Middleware Repository Creation Utility."

- Oracle WebLogic Server 10.3.5 Generic and Coherence See Section 23.2.3, "Oracle WebLogic Server Generic and Coherence."
- **4.** Oracle Identity and Access Management 11.1.1.5.0

See Section 23.2.4, "Oracle Identity Management and Access Management."

- Oracle Fusion Middleware Web Tier Utilities 11.1.1.2.0
   Oracle Fusion Middleware Web Tier Utilities Patch Set 11.1.1.5.0
   See Section 23.2.5, "Oracle Fusion Middleware Web Tier Utilities."
- Oracle Access Manager OHS WebGates 11.1.1.5.0
   See Section 23.2.6, "Oracle Access Manager OHS WebGates."

#### OAM 11.1.1.7.0 Components

1. Oracle Database 11.2.0

See Section 23.2.1, "Oracle Database 11g - Version 11.2.0."

- Oracle Fusion Middleware Repository Creation Utility 11.1.1.7.0
   See Section 23.2.2, "Oracle Fusion Middleware Repository Creation Utility."
- Oracle WebLogic Server 10.3.6 Generic and Coherence See Section 23.2.3, "Oracle WebLogic Server Generic and Coherence."
- Oracle Identity and Access Management 11.1.1.7.0
   See Section 23.2.4, "Oracle Identity Management and Access Management."
- Oracle Fusion Middleware Web Tier Utilities 11.1.1.7.0
   See Section 23.2.5, "Oracle Fusion Middleware Web Tier Utilities."
- Oracle Access Manager OHS WebGates 11.1.1.7.0
   See Section 23.2.6, "Oracle Access Manager OHS WebGates."

#### OAM 11.1.2.1.0 Components

- Oracle Database 11.2.0 See Section 23.2.1, "Oracle Database 11g - Version 11.2.0."
- Oracle Fusion Middleware Repository Creation Utility 11.1.2.1.0
   See Section 23.2.2, "Oracle Fusion Middleware Repository Creation Utility."
- Oracle WebLogic Server 10.3.6 Generic and Coherence See Section 23.2.3, "Oracle WebLogic Server Generic and Coherence."
- Oracle Identity and Access Management 11.1.2.1.0
   See Section 23.2.4, "Oracle Identity Management and Access Management."
- Oracle Fusion Middleware Web Tier Utilities 11.1.1.6.0 See Section 23.2.5, "Oracle Fusion Middleware Web Tier Utilities."
- Oracle Access Manager OHS WebGates 11.1.2.1.0
   See Section 23.2.6, "Oracle Access Manager OHS WebGates."

## 23.2.1 Oracle Database 11g - Version 11.2.0

**1.** Install Oracle Database 11*g* - Version 11.2.0.

http://docs.oracle.com/cd/E11882\_01/install.112/e24321/toc.htm

**2.** Create and configure an Oracle 11*g* database. For specific instructions, see Chapter 1, "Creating and Configuring an Oracle 11g Database."

**3.** Increase the maximum processes and open cursors allowed for the newly created database by running the following commands in sqlplus and restarting the database:

alter system set processes=500 scope=spfile; alter system set open\_cursors=800 scope=both;

#### 23.2.2 Oracle Fusion Middleware Repository Creation Utility

1. Create Schemas using the Repository Creation Utility.

http://docs.oracle.com/cd/E28280\_01/doc.1111/e14259/rcu.htm#CHDHHDHE

- 2. On the Select Components screen, expand Identity Management and select Oracle Access Manager.
- **3.** Select all components.

#### 23.2.3 Oracle WebLogic Server Generic and Coherence

Install WebLogic Server.

#### 10.3.5

http://docs.oracle.com/cd/E21764\_01/doc.1111/e14142/guimode.htm#BABHJJEG

#### 10.3.6

http://docs.oracle.com/cd/E28280\_01/doc.1111/e14142/guimode.htm#BABHJJEG

#### 23.2.4 Oracle Identity Management and Access Management

- 1. Install Oracle Identity Management and Access Management
  - 11.1.1.5.0: http://docs.oracle.com/cd/E23943\_ 01/install.1111/e12002/common.htm#BABIADBF
  - 11.1.1.7.0: http://docs.oracle.com/cd/E28280\_ 01/doc.1111/e36891/install.htm#CIHBBHGG
  - 11.1.2.1.0: http://docs.oracle.com/cd/E37115\_ 01/install.1112/e27301/install.htm#BALIADBF
- 2. Create a domain.
  - a. Run <IAM\_HOME>/common/bin/config.sh

For example:

/u01/software/Apps/OraMiddleware/Oracle\_IDM1/common/bin/config.sh

- b. Select Create a new WebLogic domain.
- **c.** Select the following products based on the release:

#### OAM 11.1.1.5.0:

- Basic WebLogic Server Domain 10.3.4.0 [wlserver\_10.3]\*
- Oracle Enterprise Manager 11.1.1.0 [oracle\_common]
- Oracle Access Manager with Database Policy Store 11.1.1.3.0 [Oracle\_IDM2]
- Oracle JRF 11.1.1.0 [oracle\_common]

#### OAM 11.1.1.7.0:

- Basic WebLogic Server Domain 10.3.6.0 [wlserver\_10.3]\*
- Oracle Identity Manager 11.1.1.2.0 [Oracle\_IDM1]
- Oracle SOA Suite 11.1.1.0 [Oracle\_SOA1]
- Oracle Enterprise Manager 11.1.1.0 [oracle\_common]
- Oracle Access Manager with Database Policy Store 11.1.1.3.0 [Oracle\_IDM2]

#### OAM 11.1.2.1.0:

- Basic WebLogic Server Domain 10.3.6.0 [wlserver\_10.3]\*
- Oracle Identity Manager 11.1.2.0.0 [Oracle\_IDM1]
- Oracle SOA Suite 11.1.1.0 [Oracle\_SOA1]
- Oracle Access Management 11.1.2.0.0 [Oracle\_IDM1]
- Oracle Enterprise Manager 11.1.1.0 [oracle\_common]

**Note:** Before integrating Oracle Access Manager ensure that Oracle SOA Suite is already installed.

- d. Configure the JDBC Component Schema:
  - Select all Component Schema
  - Enter the information for the database created in Section 23.2.1, "Oracle Database 11g - Version 11.2.0"
  - Enter a Schema password
- e. Optional Configuration:
  - Select Administration Server to configure the port of the AdminServer.
  - Select Managed Server, Clusters and Machines to modify the ports of the Managed Servers and add them to a Node Manager.
- **3.** Configure the Database Security Store (11.1.2.1.0 Only)

Run the following command:

```
<MW_HOME>/oracle_common/common/bin/wlst.sh
<IAM_HOME>/common/tools/configureSecurityStore.py -d <DOMAIN_HOME> -m
create -c IAM -p <OPSS_SCHEMA_PASSWORD> -u <OPSS_SCHEMA_NAME>
```

#### For example:

```
/u01/software/Apps/OraMiddleware/oracle_common/common/bin/wlst.sh
/u01/software/Apps/OraMiddleware/Oracle_
IDM1/common/tools/configureSecurityStore.py -d
/u01/software/Apps/OraMiddleware/user_projects/domains/OAMDomain -m
create -c IAM -p test1234 -u DEV_IAS_OPSS
```

- 4. Start the Admin Server and OAM Managed Server
  - **a.** Run the following command to start the Admin Server:

```
<DOMAIN_HOME>/bin/startWebLogic.sh
```

#### For example:

/u01/software/Apps/OraMiddleware/user\_ projects/domains/OAMDomain/bin/startWebLogic.sh

**b.** Run the following command to start the OAM Managed Server:

<DOMAIN\_HOME/bin/startManagedWebLogic.sh oam\_server1 http://<ADMIN\_ HOST>:<ADMIN\_PORT>

#### For example:

/u01/software/Apps/OraMiddleware/user\_
projects/domains/OAMDomain/bin/startManagedWebLogic.sh oam\_server1
http://localhost:7001

#### 23.2.5 Oracle Fusion Middleware Web Tier Utilities

- 1. Install Oracle Fusion Middleware Web Tier Utilities
  - 11.1.1.2.0 (Will install Patch Set also): http://docs.oracle.com/cd/E21764\_ 01/install.1111/e14260/install.htm#WTINS101
  - 11.1.1.7.0: http://docs.oracle.com/cd/E28280\_ 01/install.1111/e14260/config.htm#WTINS313
  - 11.1.1.6.0: http://docs.oracle.com/cd/E23943\_ 01/install.1111/e14260/config.htm#WTINS313

Select Install Software - Do Not Configure.

2. Install Oracle Fusion Middleware Web Tier Utilities Patch Set (11.1.1.5.0 Only)

http://docs.oracle.com/cd/E14571\_01/doc.1111/e16793/patch\_set\_ installer.htm#PATCH246

3. Configure Oracle Fusion Middleware Web Tier Utilities

**Note:** Repeat the following steps for each Sites environment (for example - management, delivery, and so forth) that will be integrated with OAM.

**a.** Run <WEB\_TIER\_HOME>/bin/config.sh

For example:

u01/software/Apps/OraMiddleware/Oracle\_WT1/bin/config.sh

- **b.** On the Configure Components screen, select **Oracle HTTP Server** and **Associate Selected Components with WebLogic Domain**.
- **c.** On the Specify WebLogic Domain screen, select the domain created in step 2 of Section 23.2.4, "Oracle Identity Management and Access Management."

#### 23.2.6 Oracle Access Manager OHS WebGates

- 1. Install Oracle Access Manager OHS WebGates
  - 11.1.1.5.0: http://docs.oracle.com/cd/E21764\_ 01/install.1111/e12002/webgate.htm#CACGIGBB

- 11.1.1.7.0: http://docs.oracle.com/cd/E28280\_ 01/doc.1111/e38584/webgate\_ohs.htm#CACJIABJ
- 11.1.1.2.1: http://docs.oracle.com/cd/E37115\_ 01/install.1112/e38922/webgate\_ohs.htm#CACJIABJ
- **2.** Complete the post-installation steps.

**Note:** Repeat the following steps for each OHS instance you configured in step 3 of Section 23.2.5, "Oracle Fusion Middleware Web Tier Utilities."

Example values for the parameters:

<WEBGATE\_HOME>

#### Example:

/u01/software/Apps/OraMiddleware/Oracle\_OAMWebGate1

<WEBGATE\_INSTANCE\_DIR>

#### Example:

/u01/software/Apps/OraMiddleware/Oracle\_WT1/instances/instance1/config/OHS/ohs1

<OHS\_ORACLE\_HOME>

#### Example:

/u01/software/Apps/OraMiddleware/Oracle\_WT1

#### **a.** Deploy a Webgate instance:

cd <WEBGATE\_HOME>/webgate/ohs/tools/deployWebGate
./deployWebgateInstance.sh -w <WEBGATE\_INSTANCE\_DIR> -oh <WEBGATE\_HOME>

**b.** Modify the OHS configuration files:

export LD\_LIBRARY\_PATH=\$LD\_LIBRARY\_PATH:<OHS\_ORACLE\_HOME>/lib cd <WEBGATE\_HOME>/webgate/ohs/tools/setup/InstallTools ./EditHttpConf -w <WEBGATE\_INSTANCE\_DIR> -oh <WEBGATE\_HOME>

# 23.3 Integrating OAM with Oracle WebCenter Sites

This section includes the following topics:

- Section 23.3.1, "Before You Start"
- Section 23.3.2, "Integration Steps"
- Section 23.3.3, "Allowing Anonymous Access to External Users"

#### 23.3.1 Before You Start

There are some important considerations regarding the integration of WebCenter Sites with OAM authentication:

 Up to this point, this chapter has described the required software and related components needed to integrate OAM with Oracle WebCenter Sites. If you have not reviewed the chapter, and have not ensured that the required components are installed and properly set up, then review the document.

WebCenter Sites must be installed and working properly with the default CAS.

**Note:** If you plan on using an LDAP Server to store roles for WebCenter Sites, this configuration should be done before OAM Integration.

You may want to use the same LDAP Server for WebCenter Sites and OAM if user duplication is an issue.

 The Oracle Access Manager Administration Console (OAMCONSOLE) application is required to perform a majority of the setup activities. Ensure you have permission to use this facility.

The integration procedure is a set of manual steps to be completed as described in the rest of this chapter.

#### 23.3.2 Integration Steps

For a Sites delivery environment, use a separate OHS instance and perform the steps below, creating and configuring an additional WebGate, host identifier, authentication scheme, and application domain.

To integrate OAM, complete the following:

1. Define WebCenter Sites users in the OAM User Identity Store.

**Note:** OAM is used for authentication only and does not rely on OAM authorization. While Oracle Internet Directory, Oracle Directory Server, and others can be used as user identity stores, Oracle WebLogic Embedded LDAP is the default, and is the user identity store used throughout the rest of this chapter. User names must match the user names located in the WebCenter Sites SystemUsers table.

OAM provides enforcement of authentication and authorization policies. WebCenter Sites uses only the authentication policies to protect resources. WebCenter Sites uses its own authorization policies.

User names in Oracle WebLogic Embedded LDAP must match the user names located in the WebCenter Sites SystemUsers table. The steps for adding users to WebLogic Embedded LDAP are as follows:

- **a.** Log in to WebLogic Admin Console.
- **b.** Click Security Realms.
- **c.** Click **myrealm**.
- **d.** Select the **Users and Groups** tab (Figure 23–2).

#### Figure 23–2 Settings for myrealm - Users and Groups Tab

Settings for m	yrealm								
Configuration	Users and Groups	Roles and Policies	Credential Mappings	Providers	Migration				
Users Grou	ips								
This page disp Note: The aut Customize f	olays information about e thentication provider nar t <b>his table</b>	each user that has been ned IAMSuiteAgent do	en configured in this sec bes not support viewing	curity realm. I or managing its	s users through	the WebLogi	c console.		
Users									
Users New De	elete					si	nowing 1 to 4	of 4 Previous   Ne	ext
Vsers New De	elete		Descriptio	on		S	nowing 1 to 4	of 4 Previous   Ne	ext
Vsers	elete		Descriptio firstsite WC	on Sites user		S	nowing 1 to 4	of 4 Previous Network Netwo Network Network Ne	ext itor
Vsers New De Name of firstsite fwadmin	elete		Descriptio firstsite WC fwadmin Wo	on Sites user CSites user		s	nowing 1 to 4	of 4 Previous   Ne Provider DefaultAuthentica DefaultAuthentica	ext ator ator
Vsers           New         Determine           Image: Name of firstsite         firstsite           Image: firstsite         fivadminin           Image: OracleS         OracleS	slete ≫ ystemUser		Description firstsite WC fwadmin Wo Oracle appli	on Sites user CSites user ication software	e system user.	S	nowing 1 to 4	of 4 Previous   Ne Provider DefaultAuthentica DefaultAuthentica	ator itor
Vsers           New         De           Image: Name of firstsite         firstsite           Image: firstsite         fivadmin           Image: OracleSystem         oracleSystem           Image: weblogic         weblogic	elete		Description           firstsite WC           fwadmin WC           Oracle appli	on Sites user CSites user ication software	e system user.	S	nowing 1 to 4	of 4 Previous Ne Provider DefaultAuthentica DefaultAuthentica DefaultAuthentica	ator ator ator ator

- **e.** For each user to be added (Figure 23–3), complete the following steps:
  - a. Click New.
  - **b.** Enter the user name.
  - **c.** Enter a description for the user.
  - d. Select DefaultAuthenticator for Provider.
  - e. Enter a password for the user.
  - f. Re-enter the password for the user.
  - g. Click OK.
| Create a New User                                            |                        |
|--------------------------------------------------------------|------------------------|
| OK Cancel                                                    |                        |
| User Properties                                              |                        |
| The following properties will be used to identify your new l | Jser.                  |
| * Indicates required fields                                  |                        |
| What would you like to name your new User?                   |                        |
| * Name:                                                      | fwadmin                |
| How would you like to describe the new User?                 |                        |
| Description:                                                 | fwadmin WCSites user   |
| Please choose a provider for the user.                       |                        |
| Provider:                                                    | DefaultAuthenticator 💌 |
| The password is associated with the login name for the new   | User.                  |
| * Password:                                                  | •••••                  |
| * Confirm Password:                                          |                        |
| OK Cancel                                                    |                        |

#### Figure 23–3 Create a New User Screen

- 2. Create an OAM WebGate Agent for deployment on OHS (Figure 23–4).
  - a. Log in to the OAM Console application.

http://<oam\_server\_host>:<weblogic\_admin\_port>/oamconsole

- **b.** Select the **System Configuration** tab.
- c. Under SSO Agents, click New OAM 11g Webgate.
- d. For Name, enter a name for the WebGate. This guide will use WCSitesWebGate.
- **e.** For Preferred Host, enter a name for the Host Identifier to be created, and click Apply. The guide will use WCSites.
- f. For Logout Callback URL, enter /<sites\_context\_root>/oam\_logout\_ success and click Apply.

#### Figure 23–4 WCSitesWebGate

WCSitesWebGate						
Name	WCSitesWebGate		Locout	Callback URL	/servlet/oam	logout success
Access Client Password			Logout	Redirect LIRI	acle.com:14	100/oam/server/logout
* Security	Open		Logout	t Target I IDI		100700m/berver/logour
	Simple		User Defined	Parameters	Constant CCI Have	derVer_TC_CCI
* State	Cert     Prable		ober benned	i arametero	URLINUTF8F	ormat=true
State	<ul> <li>Disable</li> </ul>				dient_reque	st_retry_attempts=1
* Max Cache Elements	100000 韋				(USCELCEIXECE	00000000-10
* Cache Timeout (Seconds)	1800 🖨					.::
* Token Validity Period (Seconds)	3600 🖨			* Sleep for	60	<b>▲</b>
* Max Connections	1		Cache Pra	gma Header	no-cache	
* Max Session Time	3600		Cache Co	ntrol Header	no-cache	
* Epilover Threshold	1			Debug		
				IP Validation		
AAA Timeout Threshold	-1		Deny On N	ot Protected		
* Preferred Host	WCSites		Allow Managemen	t Operations		
Lögout OKL						
		.::				
Server Lists						
Primary Server List	+ ×	Secondary Se	erver List		+ 🗙	
Server Name Host Name Host Po	rt Max Number	Server Name	Host Name	Host Port	lax Number	
oam_server 💌 123.example.c 5575	1					
L						

**Note:** With the WCSitesWebGate creation, the WCSites host identifier and the WCSitesWebGate application domain will also be created.

- 3. Configure the host identifier for WebCenter Sites.
  - **a.** Click the **Policy Configuration** tab and click the **Refresh** icon. Under **Host Identifiers**, you should see WCSites.
  - **b.** Double-click **WCSites**.
  - c. For Description, enter This is the host identifier for WebCenter Sites.
  - **d.** On the operations panel, click the **Add** (+) icon. For **Host Name**, enter the OHS server hostname. For **Port**, enter the OHS server port.

If you are using multiple hosts in a load balancing arrangement, repeat this step for each OHS instance.

- e. Click Apply.
- **4.** Create an authentication scheme that redirects to the WebCenter Sites challenge page.

**Note:** This step is optional and can be skipped if using the default OAM login form or another custom login form.

a. Click Authentication Schemes, and then click the Create icon.

The Authentication Schemes form is displayed.

Figure 23–5 Authentication Schemes form

* Name	LDAPWemScheme
Description	Challenge for WebCenter Sites applications
* Authentication Level	2 🔹
Default	
* Challenge Method	FORM 🗨
Challenge Redirect URL	/oam/server
* Authentication Module	LDAP 🗨
* Challenge URL	pamlogin/oamsso/oamLoginView.jsp
* Context Type	external 💌
Challenge Parameters	

- **b.** For **Name**, enter a name for the authentication scheme to be created. This guide will use LDAPWemScheme
- c. For Description, enter Challenge for WebCenter Sites applications
- d. For Authentication Level, enter 2
- e. For Challenge Method, select FORM
- f. For Challenge Redirect URL, enter /oam/server
- g. For Authentication Module, select LDAP
- h. For Challenge URL, use the host and port that will be used to access the oamlogin application after it is deployed. Enter http://<oamlogin\_server\_host>:<oamlogin\_port>/oamlogin/oamsso/oamLoginView.jsp
- i. For Context Type, select external
- j. Click Apply.
- **5.** In steps 5-6, you will be configuring the WCSitesWebGate application domain created during WebGate creation. The Protected Resource Policy authentication policy forces a challenge for any of its resources that are accessed without

authentication. The policy allows all resources to be passed by the WebGate to the WebCenter Sites application so authorization can be handled.

Configure the Protected Resource Policy

a. Open the Protected Resource Policy

For 11.1.1.x.0:

Expand Application Domains.

Expand WCSitesWebGate.

Expand Authentication Policies.

Double-click **Protected Resource Policy**.

For 11.1.2.1.0:

Click **Application Domains** and click the **Open** icon.

Click Search.

Click WCSitesWebGate.

Click the Authentication Policies tab.

Click **Protected Resource Policy**.

- **b.** For Authentication Scheme, select LDAPWemScheme, the authentication scheme previously created.
- **c.** Click the **Responses** tab.
- **d.** Select the **Identity Assertion** checkbox.

When an Authentication policy is satisfied, it can create responses. The responses are required by the WebCenter Sites HTTP filter to recognize LDAP attributes and provide information about the authenticated user. In the following steps, you will create these responses.

- e. Click the Add (+) icon.
- f. For Name, enter FATGATE\_POLICY
- g. For Type, select Header
- h. For Value, enter protected.

i. Click the Add (+) icon.

- j. For Name, enter FATGATE\_EMAIL.
- **k.** For **Type**, select Header
- I. For Value, enter \$user.attr.mail
- **m.** Click **Apply**.
- 6. Create resource definitions for the WebCenter Sites application domain.
  - **a.** Open Resources

For OAM 11.1.1.x.0, double-click **Resources**.

For OAM 11.1.2.1.0, click the **Resources** tab.

This panel will display only the resources that match the search criteria. Each time a new resource is added, the **Search** button must be clicked for the resource to appear in the **Search Results** list.

Figure 23–6	Resources - New Resource
-------------	--------------------------

bCenterSites R	esources						New Resource
<ul> <li>Search</li> </ul>							
Resource Type	нттр .	-	Query String				
Host Identifier			Authentication Policy				
Resource URL			Authorization Policy	•			
							Search Rese
earch Results							
Actions + View +				🔮 🦉 💥		Detach	

- b. Click New Resource to open the Create Resource panel.
- c. For Resource Type, select HTTP
- d. For Host Identifier, select WCSites, the host identifier configured in step 3.
- e. Enter a Resource URL.
- f. Select a Protection Level.

If selecting Excluded, skip steps g and h.

- **g.** For Authentication Policy, if selecting Protected in step f, select Protected Resource Policy
- **h.** For Authorization Policy, if selecting Protected in step f, select Protected Resource Policy
- i. Click Apply.

Figure 23–7 Resources

Resources	
* Туре	HTTP
Description	
* Host Identifier	WCSites 💌
* Resource URL	/servlet/wem/fatwire//*
Query String	
* Protection Level	Protected 💌
Authentication Policy	Protected Resource Policy
Authorization Policy	Protected Resource Policy

j. Repeat steps b through i using the list of resources in Table 23–1.

**Note:** Any resources with a policy are Protected. The remaining resources are Excluded.

Resource URL	Protection Level	Authentication	Authorization
/index.html	Excluded	NA	NA
/oamlogin/oamsso//*	Excluded	NA	NA
/ <sites_context_root></sites_context_root>	Excluded	NA	NA
(OAM 11.1.1.x.0 only)			
/ <sites_context_root>//*</sites_context_root>	Excluded	NA	NA
(OAM 11.1.1.x.0 only)			
/ <sites_context_root>/**</sites_context_root>	Excluded	NA	NA
(OAM 11.1.2.1.0 only)			
/	Protected	Protected	Protected
(OAM 11.1.1.x.0 only)			
//*	Protected	Protected	Protected
(OAM 11.1.1.x.0 only)			
/**	Protected	Protected	Protected
(OAM 11.1.2.1.0 only)			
/oamlogin/test	Protected	Protected	Protected
/ <sites_context_ root&gt;/wem/fatwire//*</sites_context_ 	Protected	Protected	Protected
/ <sites_context_ root&gt;/faces/jspx//*</sites_context_ 	Protected	Protected	Protected
/ <sites_context_root>/Satellite//*</sites_context_root>	Protected	Protected	Protected
/ <sites_context_ root&gt;/ContentServer//*</sites_context_ 	Protected	Protected	Protected
/ <sites_context_ root&gt;/Xcelerate/LoginPage.html</sites_context_ 	Protected	Protected	Protected

#### Table 23–1 Resources

- **k.** After all resources are added, compare the list of defined resources with Table 23–1 to ensure all policies are properly defined. Make sure all trailing /.../ contain three periods. Make sure each Resource URL is entered in the exact case. The WebCenter Sites application will not work properly if these policies are not entered correctly.
- 7. Modify the mod\_wl\_ohs.conf OHS plugin configuration file:

Note: Make sure the OHS server is shutdown.

export ORACLE\_INSTANCE=<ohs\_oracle\_home>

#### For example:

export ORACLE\_INSTANCE=/u01/software/Apps/OraMiddleware/Oracle\_WT1

<ohs\_oracle\_home>/bin/opmnctl stopproc ias-component=ohs1

This file is located in the WebGate instance directory.

For example:

```
/u01/software/Apps/OraMiddleware/Oracle_
WT1/instances/instance1/config/OHS/ohs1/mod_wl_ohs.conf
Consider this template for modification:
# NOTE : This is a template to configure mod_weblogic.
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"
# This empty block is needed to save mod_wl related configuration from EM to
# this file when changes are made at the Base Virtual Host Level
<IfModule weblogic_module>
#
      WebLogicHost <WEBLOGIC_HOST>
#
      WebLogicPort <WEBLOGIC_PORT>
#
      Debug ON
      WLLogFile /tmp/weblogic.log
#
#
      MatchExpression *.jsp
</IfModule>
<IfModule weblogic_module>
   <Location /oamlogin>
     SetHandler weblogic-handler
     WebLogicHost {oamlogin_server_host}
     WebLogicPort {oamlogin_port}
   </Location>
</IfModule>
<IfModule weblogic module>
   <Location /{sites_context_root}>
      SetHandler weblogic-handler
     WebLogicHost {sites_server_host}
     WebLogicPort {sites_port}
   </Location>
</IfModule>
# <Location /weblogic>
#
    SetHandler weblogic-handler
#
     PathTrim /weblogic
#
     ErrorPage http:/WEBLOGIC_HOME:WEBLOGIC_PORT/
# </Location>
```

**Note:** Make sure there is an include statement in the http.conf files for the mod\_wl\_ohs.conf file.

For example:

include "/u01/software/Apps/OraMiddleware/Oracle\_ WT1/instances/instance1/config/OHS/ohs1/mod\_wl\_ohs.conf"

8. Copy the WebGate configuration files (ObAccessClient.xml and cwallet.sso) to the WebGate instance:

cp <oam\_domain\_home>/output/<webgate\_name>/\* <webgate\_instance\_ dir>/webgate/config

#### For example:

cp /u01/software/Apps/OraMiddleware/user\_ projects/domains/OAMDomain/output/WCSitesWebGate/\* /u01/software/Apps/OraMiddleware/Oracle\_ WT1/instances/instance1/config/OHS/ohs1/webgate/config

#### **9.** Start the OHS server:

export ORACLE\_INSTANCE=<ohs\_oracle\_home>

#### For example:

export ORACLE\_INSTANCE=/u01/software/Apps/OraMiddleware/Oracle\_WT1
<ohs\_oracle\_home>/bin/opmnctl startproc ias-component=ohs1

- **10.** Deploy the oamtoken.war file:
  - **a.** Create a directory where the oamtoken.war file will be deployed from, and explode the oamtoken.war file into the directory from the wem directory of the WebCenter Sites installer.

#### For example:

```
mkdir /u01/software/Apps/OraMiddleware/user_
projects/domains/OAMSitesDomain/applications/oamtoken
cd /u01/software/Apps/OraMiddleware/user_
projects/domains/OAMSitesDomain/applications/oamtoken
jar -xvf /u01/installation_files/Sites/wem/oamtoken.war
```

**b.** Modify the oamtoken.xml file located in the WEB-INF/classes directory of the exploded oamtoken web application.

For OAM 11.1.1.5.0, set the value of compatibilityMode to 10G.

For OAM 11.1.1.7.0 and 11.1.2.1.0, set the value of compatibilityMode to 11G.

**c.** Copy the WebGate configuration files (ObAccessClient.xml and cwallet.sso) created in step 2 to the WEB-INF/oblix/lib directory of the exploded oamtoken web application.

Overwrite any existing file.

The WebGate configuration files are located in the <oam\_domain\_ home>/output/<webgate\_name> directory on the system where OAM is deployed.

For OAM 11.1.1.5.0, skip steps d through f.

- **d.** Copy the jps-config.xml file from the config directory of the exploded oamtoken web application to <oamtoken\_domain\_home>/config.
- **e.** Modify the file copied in step d, changing the value of the location parameter to the path of the directory where the cwallet.sso file is located.

For example:

../applications/oamtoken/WEB-INF/oblix/lib

f. Modify the weblogic.policy file located in the <weblogic\_home>/server/lib directory on the host where oamtoken will be deployed.

Add the following lines after the beginning commented section of the file, setting the file value to the path of WEB-INF/lib/\* in the exploded oamtoken web application:

```
// grant permission for oamtoken
grant codebase "file:<path_to_exploded_oamtoken_app>/WEB-INF/lib/*" {
    permission
```

```
oracle.security.jps.service.credstore.CredentialAccessPermission
    "context=SYSTEM,mapName=OAMAgent,keyName=*", "read";
};
```

g. Deploy the exploded oamtoken web application.

**Note:** On WebLogic, make the deployment accessible from the current location.

The servlet contained in the oamtoken web application may be called with visible username and password credentials. It is recommended to deploy the application as a secured web application user SSL.

**11.** Deploy the oamlogin.war file. This web application contains the WebCenter Sites challenge page.

**Note:** This step is optional and can be skipped if using the default OAM login form or another custom login form

a. Create a directory where the oamlogin.war file will be deployed from, and explode the oamlogin.war file into the directory from the wem directory of the WebCenter Sites installer.

For example:

mkdir /u01/software/Apps/OraMiddleware/user\_ projects/domains/OAMSitesDomain/applications/oamlogin cd /u01/software/Apps/OraMiddleware/user\_ projects/domains/OAMSitesDomain/applications/oamlogin jar -xvf /u01/installation\_files/Sites/wem/oamlogin.war

**b.** Create a file named wemsites\_settings.properties in the WEB-INF/classes directory of the exploded oamlogin web application, using the code below. Replace the variables with the correct values for your environment:

oamredirect=http://<oam\_server\_host>:<oam\_port>/oam/server/auth\_cred\_submit oamlogout=http://<oam\_server\_host>:<oam\_port>/oam/server/logout forgotpassword=<email\_account>@<email\_domain>

If the oamredirect property is not configured correctly, the username and password will fail to authenticate.

- **c.** Deploy the exploded oamlogin web application. On WebLogic, make the deployment accessible from the current location.
- **12.** Modify the SSOConfig.xml file of the WebCenter Sites deployment. This file controls which authentication classes are loaded and the properties that are required by those classes.
  - **1.** Shutdown the Sites server.
  - 2. Back up the SSOConfig.xml file, located in the WEB-INF/classes directory of the deployed WebCenter Sites application.

For example:

/u01/software/Apps/OraMiddleware/user\_
projects/domains/OAMSitesDomain/applications/Sites/WEB-INF/classes/SSOConfi
g.xml

Modify SSOConfig.xml to look like the following:

**Note:** In the file below, you will set the following properties: serviceUrl, ticketUrl, signoutURL, dbUsername, dbPassword, and trustConfigured.

The signoutUrl property specifies the URL to be used when invoking WebCenter Sites logout. It includes the encoded URL where the browser will return after all logout processing has been completed by OAM.

For Sites management, use the following value for end\_url:

http%3A%2F%2F{ohs\_server\_host}%3A{ohs\_port}%2F{sites\_context\_ root}%2Fwem%2Ffatwire%2Fwem%2FWelcome

For Sites delivery, use the following value for end\_url:

http%3A%2F%2F{ohs\_server\_host}%3A{ohs\_port}%2F{sites\_context\_ root}%2FXcelerate%2FLoginPage.html

For the dbUsername and dbPassword properties, you can enter the credentials of the WebCenter Sites general administrator (by default, fwadmin / xceladmin). The values for these properties will be encrypted on startup of the WebCenter Sites application.

If a trust relationship is established between the WebLogic Server and the OHS WebGate, you can set the ssofilter bean's trustConfigured property to true to eliminate the requirement for an OAM Identity Assertion with every request.

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:context="http://www.springframework.org/schema/context"
   xsi:schemaLocation="
        http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-2.5.xsd
        http://www.springframework.org/schema/context
http://www.springframework.org/schema/context/spring-context-2.5.xsd">
  <!-- Single Sign On provider -->
  <bean id="ssoprovider" class="com.fatwire.wem.sso.oam.OAMProvider">
    <property name="config" ref="ssoconfig" />
  </bean>
 <!-- OAM IdentityResolver bean -->
 <bean id="oamIdentity"
class="com.fatwire.auth.identity.LocalUsernameResolver" />
  <!-- Single Sign On filter -->
  <bean id="ssofilter" class="com.fatwire.wem.sso.oam.filter.OAMFilter">
    <property name="config" ref="ssoconfig" />
    <property name="provider" ref="ssoprovider" />
    <property name="identityResolver" ref="oamIdentity" />
    <property name="trustConfigured" value="false" />
  </bean>
  <!-- Single Sign On listener -->
  <bean id="ssolistener" class="com.fatwire.wem.sso.oam.listener.OAMListener">
  </bean>
```

```
<!-- Single Sign On configuration -->
  <bean id="ssoconfig" class="com.fatwire.wem.sso.oam.conf.OAMConfig">
    <!-- URL prefix for REST service endpoint -->
    <property name="serviceUrl" value="http://{ohs_server_host}:{ohs_</pre>
port}/{sites context root}/REST" />
    <!-- URL prefix for Token Service servlet -->
    <property name="ticketUrl" value="http://{oamtoken_server_host}:{oamtoken_</pre>
port}/oamtoken" />
    <!-- URL to be called when WEM logout is required. -->
    <property name="signoutUrl" value="http://{oam_server_host}:{oam_</pre>
port}/oam/server/logout?end url={end url}" />
    <!-- Do not proxy tickets, tt's the last server in the call chain -->
    <property name="proxyTickets" value="false" />
    <!-- Database Credentials needed by user lookup in OAMFilter -->
    <property name="dbUsername" value="{sites_admin_user} " />
    <property name="dbPassword" value="{sites_admin_password}" />
    <!-- Your application protected resources (relative to applicationUrl) -->
    <property name="protectedMappingIncludes"></property name="protectedMappingIncludes">
      <list>
                 <value>wem/fatwire/**</value>
                 <value>/faces/jspx/**</value>
<value>/ContentServer?[pagename=OpenMarket/Xcelerate/UIFramework/LoginPage|Open
Market/Xcelerate/UIFramework/ShowMainFrames|fatwire/getAllUserGroups|fatwire/ge
tAllSecurityConfigs rest/asset,#]</value>
<value>Satellite?[pagename=fatwire/insitetemplating/request|OpenMarket/Xcelerat
e/ControlPanel/Request|OpenMarket/Xcelerate/ControlPanel/EditPanel | fatwire/wem/
ui/Ping|fatwire/wem/sso/validateMultiticket|OpenMarket/Xcelerate/UIFramework/Sh
owPreviewFrames, #]</value>
<value>Xcelerate/LoginPage.html</value>
      </list>
    </propertv>
    <property name="protectedMappingStatelessIncludes"></property name="protectedMappingStatelessIncludes">
      <list>
                 <value>/REST/**</value>
      </list>
    </property>
    <!-- Your application protected resources excludes (relative to
applicationUrl) -->
    <property name="protectedMappingExcludes"></property name="protectedMappingExcludes">
      <list>
                 <value>/wem/fatwire/wem/ui/SysLocStrSvc</value>
      </list>
    </propertv>
  </bean>
```

```
</beans>
```

**13.** Configuration is now complete and OAM will authenticate users of the WebCenter Sites content management and development installations.

You may now start the remaining servers.

- 14. This step is optional and can be performed only if you have deployed the oamlogin.war file.
  - **a.** Enter the following URL on any browser:

http(s)://<ohs\_server\_host>:<ohs\_port>/oamlogin/test

If the system is operating properly you should see the WebCenter Sites challenge form (Figure 23–8).

Figure 23–8 Access Manager Secure User Login Form

ORACLE' WebCenter Sites		Version: 11gR1
	Acc	ess Manager Secure User Login
ORACLE	Username	fwadmin
	Password	Forgot password?
		Login
		🗷 Remember me

- **b.** Enter the user name and password and then click Login. Remember that the password is defined in LDAP and not the WebCenter Sites database.
- **c.** When the system is working properly a test page will appear that displays all the information provided by the WebGate. This includes the Responses specified in the policies you have created. Refresh this page and it will redisplay updated information.
- **d.** Click Logoff on the test form. The standard OAM logoff acknowledgement form opens.
- e. Re-enter the URL to display the custom challenge form.

Carefully review the configuration to ensure the expected results.

### 23.3.3 Allowing Anonymous Access to External Users

An anonymous user is required to provide access to external users to view pages stored on a management system. For example, to access a development site located on an OAM-integrated management server for testing purposes.

- 1. Add a user called Anonymous to the WebCenter Sites SystemUsers table.
- 2. Modify OAM authentication policy to remove /<context>/Satellite/\* resource from that policy.
- **3.** Recycle Oracle Http Server (OHS) to apply this change.
- 4. In the /cs/WEB-INF/classes folder, modify the satellite.properties file to set port= and host= to OHS location. This is necessary as the default localhost:80 causes errors.

### 23.4 Integrating OAM with Oracle WebCenter Sites: Satellite Server

Configuring a Satellite Server for Oracle Access Manager integration is a simpler procedure than for WebCenter Sites. The procedure outlined in this section is specific to configuring a single Satellite Server, but the process is the same for additional Satellite Servers.

This section includes the following topics:

- Section 23.4.1, "Before You Start"
- Section 23.4.2, "Integration Steps"

### 23.4.1 Before You Start

Ensure the following actions are complete before integrating Satellite Server:

- Oracle Access Manager is installed and running.
- WebCenter Sites has been successfully integrated with OAM.
- Satellite Server is installed.

#### 23.4.2 Integration Steps

In these steps, you will modify the SSOConfig.xml file of the WebCenter Sites SatelliteServer deployment. This file controls which authentication classes are loaded and the various properties that are required by those classes.

- 1. Shut down the server where SatelliteServer is deployed.
- 2. Back up the SSOConfig.xml file, located in the deployed WEB-INF/classes directory of the deployed WebCenter Sites SatelliteServer application.

For example:

/u01/software/Apps/OraMiddleware/user\_projects/domains/OAMSitesDomain /applications/SatelliteServer/WEB-INF/classes/SSOConfig.xml

**3.** Modify SSOConfig.xml to look like the file shown below.

**Note:** In the file below, you will set the following properties: serviceUrl, ticketUrl, and signoutURL.

The signoutUrl property specifies the URL to be used when invoking WebCenter Sites logout. It includes the encoded URL where the browser will return after all logout processing has been completed by OAM.

If a trust relationship is established between the WebLogic Server and the OHS WebGate, you can set the ssofilter bean's trustConfigured property to true to eliminate the requirement for an OAM Identity Assertion with every request.

<sup>&</sup>lt;?xml version="1.0" encoding="UTF-8"?>

<sup>&</sup>lt;beans xmlns="http://www.springframework.org/schema/beans"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>

xmlns:context="http://www.springframework.org/schema/context"

xsi:schemaLocation="http://www.springframework.org/schema/beans

http://www.springframework.org/schema/beans/spring-beans-2.5.xsd http://www.springframework.org/schema/context

http://www.springframework.org/schema/context/spring-context-2.5.xsd">

```
<!-- Single Sign On provider -->
   <bean id="ssoprovider" class="com.fatwire.wem.sso.oam.OAMProvider">
   <property name="config" ref="ssoconfig" />
  </bean>
  <!-- OAM IdentityResolver bean -->
  <bean id="oamIdentity"
class="com.fatwire.auth.identity.RemoteUsernameResolver id="oamIdentity">
    <property="csServerUrl" value="http://<sites_server_host>:<sites_</pre>
port>/<sites_context_root>/custom/customCsResolver.jsp
  </bean>
  <!-- Single Sign On filter -->
  <bean id="ssofilter" class="com.fatwire.wem.sso.oam.filter.OAMFilter">
    <property name="config" ref="ssoconfig" />
    <property name="provider" ref="ssoprovider" />
    <property name="identityResolver" ref="oamIdentity" />
    <property name="trustConfigured" value="false" />
  </bean>
  <!-- Single Sign On listener -->
  <bean id="ssolistener" class="com.fatwire.wem.sso.oam.listener.OAMListener">
  </bean>
  <!-- Single Sign On configuration -->
  <bean id="ssoconfig" class="com.fatwire.wem.sso.oam.conf.OAMConfig">
    <!-- URL prefix for REST service endpoint -->
    <property name="serviceUrl" value="http://{ohs_server_host}:{ohs_</pre>
port}/{sites_context_root}/REST" />
    <!-- URL prefix for Token Service servlet -->
    <property name="ticketUrl" value="http://{oamtoken_server_host}:{oamtoken_</pre>
port}/oamtoken" />
    <!-- URL to be called when WEM logout is required. -->
    <property name="signoutUrl" value="http://{oam_server_host}:{oam_</pre>
port}/oam/server/logout?end_url=http%3A%2F%2F{ohs_server_host}%3A{ohs_
port}%2F{sites_context_root}%2Fwem%2Ffatwire%2Fwem%2FWelcome" />
    <!-- Proxy tickets, tt's the last server in the call chain -->
    <property name="proxyTickets" value="true" />
    <!-- Your application protected resources (relative to applicationUrl) -->
    <property name="protectedMappingIncludes"></property name="protectedMappingIncludes">
      <list>
      </list>
    </property>
    <property name="protectedMappingStatelessIncludes"></property name="protectedMappingStatelessIncludes">
      <list>
                 <value>/REST/**</value>
      </list>
    </propertv>
    <!-- Your application protected resources excludes (relative to
applicationUrl) -->
    <property name="protectedMappingExcludes"></property name="protectedMappingExcludes">
      <list>
      </list>
    </property>
  </bean>
</beans>
```

Ensure that the proxyTickets parameter is set to true. This is required so that Satellite Server will pass authenticated tickets allocated by REST client programs to WebCenter Sites.

The location of the REST endpoint (defined by the serviceUrl property) depends on the location of the Satellite Server. When located inside the firewall, it can refer directly to the WebCenter Sites to achieve the highest performance without compromising security. When the Satellite Server is located elsewhere, or exposed directly to the Internet, the endpoint must direct all requests through the OHS to secure and protect WebCenter Sites.

An advanced configuration using OHS in front of Satellite Server is an alternative way of securing the WebCenter Sites configurations. This configuration would access the WebCenter Sites.

# 24

### Enabling Community-Gadgets to Communicate with OAM-Integrated WebCenter Sites

Oracle WebCenter Sites can be integrated with Oracle Access Manager (OAM) instead of CAS to make use of its authentication and single sign-on services. If Community-Gadgets is also installed, it must be enabled to communicate with WebCenter Sites through its OAM, as described in this chapter.

This chapter contains the following sections:

- Section 24.1, "Before You Start"
- Section 24.2, "Enabling Communication with the OAM-Integrated Management WebCenter Sites"
- Section 24.3, "Enabling Communication with the OAM-Integrated Production WebCenter Sites"
- Section 24.4, "Next Step"

### 24.1 Before You Start

Before configuring support for communications between Community-Gadgets and OAM-integrated WebCenter Sites, ensure the following:

- WebCenter Sites management and production installations are fully functional. Also, WebCenter Sites is (or will be) successfully integrated with OAM.
- The Community-Gadgets war/ear files have been generated, as described in the Oracle Fusion Middleware WebCenter Sites Installation Guide.

If the above conditions hold, complete the steps in this chapter as follows:

- If the management WebCenter Sites is OAM-integrated, complete the steps in Section 24.2, "Enabling Communication with the OAM-Integrated Management WebCenter Sites." Follow up with Section 24.4, "Next Step."
- If the production WebCenter Sites is OAM-integrated, complete the steps in Section 24.3, "Enabling Communication with the OAM-Integrated Production WebCenter Sites." Follow up with Section 24.4, "Next Step."
- If the management and production WebCenter Sites systems are OAM-integrated, complete the steps in Section 24.2, "Enabling Communication with the OAM-Integrated Management WebCenter Sites" and

Section 24.3, "Enabling Communication with the OAM-Integrated Production WebCenter Sites." Follow up with Section 24.4, "Next Step."

# 24.2 Enabling Communication with the OAM-Integrated Management WebCenter Sites

If your management WebCenter Sites is integrated with OAM, complete the steps in this section. This section contains the following topics:

- Section 24.2.1, "Updating the Management OAM-WebCenter Sites Configuration to Support Community-Gadgets"
- Section 24.2.2, "Configuring Community-Gadgets to Use the OAM-Integrated Management WebCenter Sites"

# 24.2.1 Updating the Management OAM-WebCenter Sites Configuration to Support Community-Gadgets

In this step, you will first add management Community-Gadgets resource definitions to the OAM configuration for the WebCenter Sites management application, and then register the WebLogic managed server (where management Community-Gadgets is deployed) with Oracle HTTP Server.

This section contains the following topics:

- Section 24.2.1.1, "Adding the Management Community-Gadgets Resource Definitions to the OAM-WebCenter Sites Configuration"
- Section 24.2.1.2, "Enabling Identity Assertion for the Authorization Policy"
- Section 24.2.1.3, "Registering the WebLogic Managed Server for the Management Community-Gadgets with Oracle HTTP Server"
- Section 24.2.1.4, "Increasing Maximum Number of Sessions"

# 24.2.1.1 Adding the Management Community-Gadgets Resource Definitions to the OAM-WebCenter Sites Configuration

Add the management Community-Gadgets resource definitions listed in Table 24–1 to OAM for the WebCenter Sites application domain. For information about how to add resource definitions to OAM, see Section 23.3.2, "Integration Steps."

**Note:** In the resource definitions (Table 24–1):

- Replace <sites-context> with the context root of the WebCenter Sites web application running on the management system.
- Replace <cg-context> with the context root of the Community-Gadgets application running on the management system.
- Replace <shindig-context> with the context root of the Shindig application running on the management system.

 Table 24–1
 Management Community-Gadgets Resource Definitions

Resource Definition	Protection Level	Authentication	Authorization
/ <sites-context>/custom/customCsResolver.jsp</sites-context>	Unprotected	Public	All Allowed
/ <cg-context>/rest/sites//*</cg-context>	Unprotected	Public	All Allowed
/ <cg-context>/rest//*</cg-context>	Protected	Browser	All Allowed

Resource Definition	Protection Level	Authentication	Authorization
/ <cg-context>/sso//*</cg-context>	Protected	Browser	All Allowed
/ <cg-context>/wsdk//*</cg-context>	Protected	Browser	All Allowed
/ <cg-context>/cachetool//*</cg-context>	Protected	Browser	All Allowed
/ <cg-context>/admin/registered//*</cg-context>	Protected	Browser	All Allowed
/ <cg-context>/admin-gadgets//*</cg-context>	Protected	Browser	All Allowed
/ <cg-context>/wsdk/widget//*</cg-context>	Excluded		
/ <cg-context>/wsdk/skin//*</cg-context>	Excluded		
/ <cg-context>/incache//*</cg-context>	Excluded		
/ <cg-context>/rest/cache//*</cg-context>	Excluded		
/ <cg-context>/styles//*</cg-context>	Excluded		
/ <cg-context>/images//*</cg-context>	Excluded		
/ <cg-context>/wemresources//*</cg-context>	Excluded		
/ <cg-context>/admin-gadgets/images//*</cg-context>	Excluded		
/ <cg-context>/admin-gadgets/js//*</cg-context>	Excluded		
/ <cg-context>/admin-gadgets/styles//*</cg-context>	Excluded		
/ <shindig-context>//*</shindig-context>	Excluded		

Table 24–1 (Cont.) Management Community-Gadgets Resource Definitions

#### 24.2.1.2 Enabling Identity Assertion for the Authorization Policy

Configure Identity Assertion as follows for the authorization policy that is used for the WebCenter Sites application domain:

 If a trusted environment is not configured between Oracle WebLogic Server and Oracle HTP Server, select the Identity Assertion check box (shown in Figure 24–1).

Figure 24–1 Authorization Policy: Identity Assertion

Authorization Policy		
* Name	All Resources are Authorized	Failure URL
Description	This policy allows all resources to be fully authorized	Use Implied Constraints 📝
	without constraints	Identity Assertion 🗹
	.::	
Success URL		

• If a trusted environment is configured between Oracle WebLogic Server and Oracle HTP Server, leave the Identity Assertion check box deselected.

For information about establishing trust between Oracle WebLogic Server and other entities, see the *Oracle Fusion Middleware Application Security Guide*.

### 24.2.1.3 Registering the WebLogic Managed Server for the Management Community-Gadgets with Oracle HTTP Server

This step enables Oracle HTTP Server to forward requests to the WebLogic Server managed server instance for the management Community-Gadgets web application.

To register the WebLogic managed server on which the management Community-Gadgets is deployed:

- 1. Using a text editor, update the mod\_wl\_ohs.conf configuration file that was used during the OAM-WebCenter Sites integration, as follows:
  - **a.** Locate the mod\_wl\_ohs.conf file for the Oracle HTTP Server instance, for example:

/u01/software/Apps/OraMiddleware/asinst\_1/config/OHS/ohs1/mod\_wl\_ohs.conf

**b.** Add the following block of code to the mod\_wl\_ohs.conf file:

```
<IfModule weblogic_module>
   <location /{management-community-gadgets-context-root}>
         SetHandler weblogic-handler
         WebLogicHost {hostname | IP of WebLogic server where management
Community-Gadgets is deployed}
         WebLogicPort {port of WebLogic server where management
Community-Gadgets is deployed}
</location>
</IfModule>
<IfModule weblogic_module>
    <location /{management-shindig-context-root}>
        SetHandler weblogic-handler
        WebLogicHost {hostname | IP of WebLogic server where management
Shindig is deployed}
        WebLogicPort {port of WebLogic server where management Shindig is
deploved}
    </location>
</IfModule>
```

- **c.** Save the file.
- 2. Restart Oracle HTTP Server.

#### 24.2.1.4 Increasing Maximum Number of Sessions

To increase the maximum number of sessions:

- 1. Log in to the OAM console.
- 2. Under System Configuration, click Common Settings.
- **3.** For the **Maximum Number of Sessions per User** parameter, click the **Up** arrow to increase the number to 100 (Figure 24–2).

#### Figure 24–2 Maximum Number of Sessions Per User

(	ORACLE Access Manager		Accessibility	Help Sig	gn Out
	_			Signed in	as web
	Policy Configuration System Configuration				
ſ	Common Configuration	O Welcome Common Settings			× 🖹
	Actions - View - 🔄 🗁 💥 🔞	Common Settings		Apply	?
	E Available Services     Services     Services	The following settings are common to the entire suite, and changes to these settings may impact more than one service.			
	<ul> <li>&gt; Server Instances</li> <li>&gt; Data Sources</li> <li>&gt; ⇒ Plugins</li> </ul>	Session Ufetime 480      450      * Maximum Number of 100      Sessions per User     * Idle Timeout (minutes) 15      Database Persistence of      Active Sessions Enabled			
		* Port         9095 (c)         * Multicast (Cluster)         228.228.228.228           * Time to Live (number of hops)         1 (c)         * Multicast (Cluster) Port         228.28 (c)			H
		✓ Audit Configuration     * Maximum Directory Size (MB)     100 ⊕     * Maximum File Size (MB)     10 ⊕			
	2 Access Manager Settings	Filter Enabled  Filter Preset Low Audt Configuration			

# 24.2.2 Configuring Community-Gadgets to Use the OAM-Integrated Management WebCenter Sites

In this step, you will modify the Community-Gadgets configuration to use the management WebCenter Sites application that is integrated with OAM.

**Note:** Steps in this section must be completed only on the management Community-Gadgets instance.

This section contains the following topics:

- Section 24.2.2.1, "Configuring wem\_sso\_config.xml"
- Section 24.2.2.2, "Adding the Oracle HTTP Server Address to Property Files"

#### 24.2.2.1 Configuring wem\_sso\_config.xml

Community-Gadgets comes with the following SSO files: wem\_sso\_config.xml and oam\_wem\_sso\_config\_sample.xml. By default, Community-Gadgets uses the wem\_sso\_ config.xml file to communicate with WebCenter Sites. Because the default file is set up to support communications with WebCenter Sites through CAS, you will use the oam\_wem\_sso\_config\_sample.xml file to create the wem\_sso\_config.xml file to support communications through the OAM that is integrated with WebCenter Sites. The files contain the following information:

- The oam\_wem\_sso\_config\_sample.xml file includes all the required configurations except those specific to environment credentials. Tokens are used in place of environment credentials.
- The wem\_sso\_config.xml file includes all the required WEM SSO and CAS configurations for Community-Gadgets.

To create and configure the wem\_sso\_config.xml file:

 Go to the <cg\_install\_dir>/deploy/management/management\_node1 directory, or the directory that was created for your management Community-Gadgets during its installation. For information, see the section "Copying Installer-Generated Configuration Files" of the Oracle Fusion Middleware WebCenter Sites Installation Guide.

- 2. Back up the wem\_sso\_config.xml file by saving it as wem\_sso\_config.xml.bak.
- 3. Rename the oam\_wem\_sso\_config\_sample.xml file to wem\_sso\_config.xml.
- 4. In the new wem\_sso\_config.xml file, do the following:
  - **a.** Replace the tokens, which are listed in Table 24–2, with the actual values for OAM.

Table 24–2 Tokens to Be Replaced in wem\_sso\_config.xml

Token	Description	Example
{ohs_host}	Host of Oracle HTTP Server used for proxying requests to WebCenter Sites	ohs.example.com
{ohs_port}	Port of Oracle HTTP Server used for proxying requests to WebCenter Sites	7777
{sites_context_root}	Context root of the WebCenter Sites application	servlet
{wl_oamtoken_host}	Host of the WebLogic managed server on which the oamtoken application is deployed	oamtoken.example.com
{wl_oamtoken_port}	Port of the WebLogic managed server on which the oamtoken application is deployed	8003
{wl_oamserver_host}	Host of the WebLogic managed server on which the OAM application is deployed	oam.example.com
{wl_oamserver_port}	Port of the WebLogic managed server on which the OAM application is deployed	14100
{username}	User name with authority to read the WebCenter Sites SystemUser table	fwadmin
{password}	Above user's password	xceladmin

**Note:** In Community-Gadgets, the wem\_sso\_config.xml file is configured to work with OAM-integrated WebCenter Sites. This file is similar (however, not the fully identical) to the SSOConfig.xml file in WebCenter Sites. Generally, the values of the dbUsername and dbPassword properties (presented in wem\_sso\_config.xml file as {username} and {password} tokens) should be identical in wem\_sso\_ config.xml and SSOConfig.xml.

**b.** If you are configuring a trusted environment between Oracle WebLogic Server and Oracle HTP Server, turn off the check for OAM\_ASSERTION to improve performance.

To turn off the check for OAM\_ASSERTION, locate the ssofilter bean and set the value of the trustConfigured property to true.

**c.** Save the file.

#### 24.2.2.2 Adding the Oracle HTTP Server Address to Property Files

Completing this section is required only when WebCenter Sites is integrated with OAM *after* Community-Gadgets is installed. Property files are located in the <cg\_ install\_dir>/deploy/management/management\_node1 directory or in the directory that was created for your management Community-Gadgets during its installation. For information, see the section "Copying Installer-Generated Configuration Files" of the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.  Update the setup\_cs.properties file by updating the value of the widgets.cs.management.attrs.urls parameters to use {ohs\_host} and {ohs\_ port}.

For example:

widgets.cs.management.attrs.urls=http://{ohs\_host}:{ohs\_port}

- 2. Update the setup\_cos.properties file as follows:
  - Update the widgets.cos.management.attrs.url parameter to use {ohs\_host} and {ohs\_port}

#### For example:

widgets.cos.management.attrs.url=http://{ohs\_host}:{ohs\_port}

 Update the widgets.gadgets.opensocial.management.attrs.url parameter to use {ohs\_host} and {ohs\_port}.

#### For example:

```
widgets.gadgets.opensocial.management.attrs.url=http://{ohs_host}:{ohs_
port}
```

# 24.3 Enabling Communication with the OAM-Integrated Production WebCenter Sites

If your production WebCenter Sites is integrated with OAM, complete the steps in this section. This section contains the following topics:

- Section 24.3.1, "Updating the Production OAM-WebCenter Sites Configuration to Support Community-Gadgets"
- Section 24.3.2, "Configuring Community-Gadgets to Use OAM-Integrated Production WebCenter Sites"

# 24.3.1 Updating the Production OAM-WebCenter Sites Configuration to Support Community-Gadgets

This section contains the following topics:

- Section 24.3.1.1, "Adding Production Community-Gadgets Resource Definitions to the OAM-WebCenter Sites Configuration"
- Section 24.3.1.2, "Enabling Identity Assertion for the Authorization Policy"
- Section 24.3.1.3, "Registering the WebLogic Managed Server for the Production Community-Gadgets Application with Oracle HTTP Server"

# 24.3.1.1 Adding Production Community-Gadgets Resource Definitions to the OAM-WebCenter Sites Configuration

Add production Community-Gadgets resource definitions listed in Table 24–3 to OAM for the production WebCenter Sites application domain. For information about how to add resource definitions to OAM, see Section 23.3.2, "Integration Steps."

#### **Note:** In the resource definitions (Table 24–3):

- Replace <sites-context> with the context root of the WebCenter Sites web application running on the production system.
- Replace <cg-context> with the context root of the Community-Gadgets application running on the production system.

Resource Definition	Protection Level	Authentication	Authorization
/ <sites-context>/custom/customCsResolver.jsp</sites-context>	Unprotected	Public	All Allowed
/ <cg-context>/cachetool//*</cg-context>	Protected	Browser	All Allowed

#### 24.3.1.2 Enabling Identity Assertion for the Authorization Policy

Configure Identity Assertion as follows for the authorization policy that is used for the WebCenter Sites application domain:

 If a trusted environment is not configured between Oracle WebLogic Server and Oracle HTP Server, select the Identity Assertion check box (shown in Figure 24–3).

Figure 24–3 Authorization Policy: Identity Assertion

Authorization Policy		
* Name	All Resources are Authorized	Failure URL
Description	This policy allows all resources to be fully authorized	Use Implied Constraints 🔽
	without constraints	Identity Assertion 🔽
	.:	
Success URL		

• If a trusted environment is configured between Oracle WebLogic Server and Oracle HTP Server, leave the Identity Assertion check box deselected.

For information about establishing trust between Oracle WebLogic Server and other entities, see the *Oracle Fusion Middleware Application Security Guide*.

# 24.3.1.3 Registering the WebLogic Managed Server for the Production Community-Gadgets Application with Oracle HTTP Server

This step enables Oracle HTTP Server to forward requests to the WebLogic Server managed server instance for the production Community-Gadgets web application.

#### To register the WebLogic managed server on which production Community-Gadgets is deployed

- Using a text editor, update the mod\_wl\_ohs.conf configuration file that was used during the OAM-WebCenter Sites content management application integration as follows:
  - **a.** Locate the mod\_wl\_ohs.conf file for the Oracle HTTP Server instance, for example:

/u01/software/Apps/OraMiddleware/asinst\_1/config/OHS/ohs1/mod\_wl\_ohs.conf

**b.** Add the following block of code to the mod\_wl\_ohs.conf file:

```
<IfModule weblogic_module>
<location /{production-community-gadgets-context-root}>
SetHandler weblogic-handler
WebLogicHost {hostname|IP of WebLogic server where production
Community-Gadgets is deployed}
WebLogicPort {port of WebLogic server where production
Community-Gadgets is deployed}
</location>
</IfModule>
```

- **c.** Save the file.
- 2. Restart Oracle HTTP Server.

### 24.3.2 Configuring Community-Gadgets to Use OAM-Integrated Production WebCenter Sites

This section describes how to modify the Community-Gadgets configuration to use the production WebCenter Sites application which is integrated with OAM.

**Note:** Steps in this section must be completed only on the production Community-Gadgets instance if there is no additional note.

This section includes the following topics:

- Section 24.3.2.1, "Configuring wem\_sso\_config.xml"
- Section 24.3.2.2, "Adding the Oracle HTTP Server Address to Property Files"

#### 24.3.2.1 Configuring wem\_sso\_config.xml

Community-Gadgets comes packaged with the wem\_sso\_config.xml and oam\_wem\_ sso\_config\_sample.xml files. By default, Community-Gadgets uses the wem\_sso\_ config.xml file to communicate with WebCenter Sites. The default file is configured to support communications with WebCenter Sites through CAS. To support communications through OAM integrated with WebCenter Sites, you will create the wem\_sso\_config.xml file from the oam\_wem\_sso\_config\_sample.xml file. The files contain the following information:

- The oam\_wem\_sso\_config\_sample.xml file includes all the required configurations except those specific to environment credentials. Tokens are used in place of environment credentials.
- The wem\_sso\_config.xml file includes all the required WEM SSO and CAS configurations for Community-Gadgets.

To create and configure the wem\_sso\_config.xml file:

- Go to the <cg\_install\_dir>/deploy/production/production\_node1 directory, or the directory that was created for your production Community-Gadgets during its installation. For information, see the section "Copying Installer-Generated Configuration Files" of the Oracle Fusion Middleware WebCenter Sites Installation Guide.
- 2. Back up the wem\_sso\_config.xml file by saving it as wem\_sso\_config.xml.bak.
- 3. Rename the oam\_wem\_sso\_config\_sample.xml file to wem\_sso\_config.xml.

- 4. In the new wem\_sso\_config.xml file, do the following:
  - **a.** Replace the tokens, which are listed in Table 24–4, with actual values for OAM.

Token	Description	Example
{ohs_host}	Host of Oracle HTTP Server used for proxying requests to WebCenter Sites	ohs.example.com
{ohs_port}	Port of Oracle HTTP Server used for proxying requests to WebCenter Sites	9999
{sites_context_root}	Context root of the WebCenter Sites application	servlet
{wl_oamtoken_host}	Host of the WebLogic managed server on which the oamtoken application is deployed	oamtoken.example.com
{wl_oamtoken_port}	Port of the WebLogic managed server on which the oamtoken application is deployed	8005
{wl_oamserver_host}	Host of the WebLogic managed server on which the OAM application is deployed	oam.example.com
{wl_oamserver_port}	Port of the WebLogic managed server on which the OAM application is deployed	14100
{username}	User name with rights to read the WebCenter Sites SystemUser table	fwadmin
{password}	Password for the user name	FW_pAssworD

 Table 24–4
 Tokens to Be Replaced in wem\_sso\_config.xml

**Note:** In Community-Gadgets, the wem\_sso\_config.xml file is configured to work with OAM-integrated WebCenter Sites. This file is similar (however, not the fully identical) to the SSOConfig.xml file in WebCenter Sites. Generally, the values of the dbUsername and dbPassword properties (presented in wem\_sso\_config.xml file as {username} and {password} tokens) should be identical in wem\_sso\_config.xml and SSOConfig.xml.

- **b.** If you are configuring a trusted environment between Oracle WebLogic Server and Oracle HTP Server, turn off the check for OAM\_ASSERTION to improve performance. To turn off the check for OAM\_ASSERTION, locate the ssofilter bean and set the value of the trustConfigured property to true.
- **c.** Save the file.

#### 24.3.2.2 Adding the Oracle HTTP Server Address to Property Files

Perform the procedure described in this section only when WebCenter Sites is integrated with OAM after Community-Gadgets is installed. Property files are located in the <cg\_install\_dir>/deploy/production/production\_node1 directory, or in the directory that was created for your production Community-Gadgets during its installation. For information, see the section "Copying Installer-Generated Configuration Files" of the Oracle Fusion Middleware WebCenter Sites Installation Guide.

 In the setup\_cs.properties file, update the value of the widgets.cs.production.attrs.urls parameters to use {ohs\_host} and {ohs\_ port}.

#### For example:

widgets.cs.production.attrs.urls=http://{ohs\_host}:{ohs\_port}

**Note:** Additionally, repeat step 1 for the setup\_cs.properties file located in the <cg\_install\_dir>/deploy/management/management\_ node1 directory or in the directory which was created for your management Community-Gadgets during its installation. For information, see the section "Copying Installer-Generated Configuration Files" of the Oracle Fusion Middleware WebCenter Sites Installation Guide.

2. In the setup\_cos.properties file, update the value of the
 widgets.cos.production.attrs.url parameter to use {ohs\_host} and {ohs\_
 port}.

For example:

widgets.cos.production.attrs.url=http://{ohs\_host}:{ohs\_port}

### 24.4 Next Step

Verify the configurations you have created in this chapter by logging in to the management WebCenter Sites and ensuring that the Community and Gadgets interfaces can be displayed. For instructions, see the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.

## Integrating Oracle Access Manager with Oracle WebCenter Sites: Site Capture

If your WebCenter Sites installation is not using the Central Authentication Service (CAS) web application for authentication and single sign-on, follow the instructions in this chapter to integrate Oracle Access Manager (OAM) with the WebCenter Sites: Site Capture application.

This chapter contains the following sections:

- Section 25.1, "Prerequisites"
- Section 25.2, "Configuring Oracle Access Manager for Integration with Site Capture"

### **25.1 Prerequisites**

Before integrating Oracle Access Manager (OAM) with the Site Capture application, ensure that you have integrated OAM with WebCenter Sites. For instructions, see Chapter 23, "Integrating Oracle Access Manager with Oracle WebCenter Sites."

# 25.2 Configuring Oracle Access Manager for Integration with Site Capture

This section contains the following topics:

- Section 25.2.1, "Adding Resources to Oracle Access Manager"
- Section 25.2.2, "Adjusting the root-context.xml File"

### 25.2.1 Adding Resources to Oracle Access Manager

Create the resource definitions listed in Table 25–1 for the WebCenter Sites application domain. These definitions are in addition to the resource definitions that were created during OAM integration with WebCenter Sites.

Resource URL	Protection Level	Authentication	Authorization
/ <sites-context>/REST/r oles</sites-context>	Unprotected	Public	All Allowed
/ <sites-context>/custom /customCsResolver.jsp</sites-context>	Unprotected	Public	All Allowed
/resources//*	Excluded		

### 25.2.2 Adjusting the root-context.xml File

The Site Capture application ships with the following files:

- root-context.xml
- oam\_root-context.xml

By default, the Site Capture application uses the root-context.xml file. Before deploying the Site Capture installation, you must adjust the root-context.xml file.

#### To adjust the root-context.xml file for the Site Capture application

- 1. Back up the root-context.xml file and then rename the file to root-context.xml.bak.
- 2. Rename oam\_root-context.xml file to root-context.xml file.
- **3.** Replace the tokens in Table 25–2 in the root-context.xml file (created in step 2):

Table 25–2 Tokens in the root-context.xml file

Token	Description	Example
{ohs_host}	Host of Oracle HTTP Server used for proxying requests to WebCenter Sites	ohs.example.com
{ohs_port}	Port of Oracle HTTP Server used for proxying requests to WebCenter Sites	7777
{sites_context_root}	Context root of WebCenter Sites application	servlet
{wl_oamtoken_host}	Host of the WebLogic managed server where the oamtoken application is deployed	oamtoken.example.com
{wl_oamtoken_port}	Port of WebLogic managed server where the oamtoken application is deployed	8003
{wl_oamserver_host}	Host of the WebLogic managed server where the OAM application is deployed	oam.example.com
{wl_oamserver_port}	Port of the WebLogic managed server where the OAM application is deployed	14100
{username}	User name with authority to read the WebCenter Sites SystemUser table	fwadmin
{password}	Above user's password	xceladmin

**4.** Deploy the Site Capture ROOT.war file. For instructions, see the section "Deploying Site Capture" in the *Oracle Fusion Middleware WebCenter Sites Installation Guide*.