# FatWire | Content Server 7

Version 7.0.1



# Configuring Third-Party Software

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# **About This Guide**

This guide contains information about installing and configuring third-party software specifically for use by Content Server. You will use the information in this guide along with the CS installation guide for your platform, and, if you choose to integrate with LDAP, the *LDAP Integration Guide*.

### How This Guide is Organized

The guide is divided into the following parts:

- Part 1, "Creating and Configuring a Database" shows you how to create and configure the supported databases before you install Content Server. (Supplements the Content Server installation guides.)
- Part 2, "Installing a Web Server" shows you how to install and configure the supported web servers, if you choose to use one. (Supplements the Content Server installation guides.)
- Part 3, "Installing and Configuring LDAP"- shows you how to set up the supported LDAP server for integration with Content Server. (Supplements the *LDAP Integration Guide*.)

### Who Should Use This Guide

This guide is for installation engineers who have experience installing and configuring enterprise-level software, including databases, database drivers, application servers, portal servers, and LDAP servers.

### **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. These 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.

## **Technical Support**

Help is available from FatWire Technical Support at the following website: http://www.fatwire.com/Support/contact\_info.html

#### Part 1

# **Creating and Configuring a Database**

Content Server requires access to a supported database that is specifically configured for the product. Supported databases include:

- Oracle 9, 10*g*
- Microsoft SQL Server 2000 SP3+, 2005
- DB2 8.2, 9.1

The databases listed above are not configured for production, but are set up with full permissions. In practice, the permissions can be curtailed for the user that Content Server 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.

Instructions on creating and configuring the databases for Content Server are given in the chapters of this guide. Because database configuration is identical across different application servers, refer to the correct chapter to set up the database of your choice.

This part contains the following chapters:

- Chapter 1, "Creating and Configuring an Oracle 9.2.0.x Database"
- Chapter 2, "Creating and Configuring an Oracle 10g Database"
- Chapter 3, "Creating and Configuring an MS SQL Server Database"
- Chapter 4, "Creating and Configuring an IBM DB2 8.x Database"
- Chapter 5, "Creating and Configuring an IBM DB2 9.1 Database"

## Chapter 1

# Creating and Configuring an Oracle 9.2.0.x Database

Use this chapter to set up an Oracle 9.2.0.x database for your Content Server installation. For background information regarding database configuration and users' permissions, see "Creating and Configuring a Database," on page 9.

This chapter contains the following sections:

Step I. Create an Oracle 9.2.0.x Database

Step II. Configure the Database for Content Server

## Step I. Create an Oracle 9.2.0.x Database

**1.** Go to the \$ORACLE9\_HOME/bin directory:

cd \$ORACLE9\_HOME/bin

- Run the Database Configuration Assistant: dbca
- 3. In the welcome screen, click Next.
- 4. Fill in the following screens as shown below:
  - **a.** On the "Step 1 of 8: Operations" screen, leave **Create a database** selected and click **Next**.
  - **b.** On the "Step 2 of 8: Database Templates" screen, select **General Purpose** and click **Next**.

🐻 Database Configuration Assis	tant, Step 2	of 8 : Database Templates	
	Select a ten	plate from the following list to create a database:	
	Select	Template Name	Includes Datafi
	0	Data Warehouse	Yes
	9	General Purpose	Yes
	0	Transaction Processing	Yes
	0	New Database	No
Handbarden Bergenstein Bergenstein Bergenstein Bergenstein Bergenstein Bergenstein Bergenstein Bergenstein			
			Show Details
Cancel Help		🔇 Back Next	»)

#### Note

Database block size **must** be at least 4096 bytes. Selecting the **General Purpose** option automatically sets the block size to 8192 bytes.

**c.** On the "Step 3 of 7: Database Identification" screen, enter the database name in the Global Database Name field. The SID will be automatically set to the first eight characters of the Database Name. Each SID must be unique. Click **Next**.

🔠 Database Configuration Ass	istant, Step 3 of 7 : Databas	e Identification			
	Specify the following dat An Oracle9i database is to of the form "name.domai Global Database Name: A database is referenced identified from any other (SID). SID:	abase information uniquely identified n". Database by at least one Or instance on this c Database	L l by a Global D racle9i instanc computer by an	atabase Name, tyj e which is uniquely Oracle System Id	vically 7 entifier
Салсеі Неір	)		« васк		1111SR

- **d.** On the "Step 4 of 7: Database Connection Options" screen, leave **Dedicated Server mode** selected and click **Next**.
- e. On the "Step 5 of 7: Initialization Parameters" screen:
  - 1) Select the tab Character Sets.
  - 2) On the character sets screen, select Choose from the list of character sets and UTF8 from the drop-down menu. For the National Character Set select UTF8 and click Next.

Database Configuration Assist	stant, Step 5 of 7	: Initialization Par	ameters		
	Memory Database C O Use the o The defai setting o O Use Unio Setting c multiple I @ Choose f UTFS National Char	Character Sets haracter Set default ult character set fo f this operating sy code (AL32UTF8) haracter set to Uni language groups. from the list of cha acter Set: UTF8	DB Sizing or this database stem: WE8ISOS icode (AL32UT) racter sets	File Locations e is based on the 1859P1. F8) enables you to	Archive language o store
	All Initializatio	on Parameters)		File Loca	ation Variables)
Cancel Help	1		٢.	Back Next	) <u>F</u> inish

- f. On the "Step 6 of 7: Database Storage" screen, click Next.
- g. On the "Step 7 of 7: Creation Options" screen, click Finish.

- 5. When the summary screen appears, click OK.
- **6.** When the "Installation Progress Screen" appears, wait for the installation to be completed.



7. After the installation has been completed, the database information screen will appear, listing information about how to connect to this database using the enterprise management console. Click **OK**.

## Step II. Configure the Database for Content Server

Oracle Enterprise Mana	ger Console Login	2
ORACLE ENTERPRISE MANAGER	Launch standalone	
	C Login to the Oracle Management Server	
2		
	OK Cancel Help	
ORACLE	Copyright © 1998, 2002, Oracle Corporation. All rights rese	W

1. Start Oracle Enterprise Manage Console. Click OK.

2. Expand Network > Databases. Select the database you have created.



**3.** In the database login screen, log in as SYS and enter the password you specified earlier while creating the database. Click **OK**.

Gracia Enterprise Manager Console, Standah	101	N 🗆 🖌
		PRACLE
Ele (sevotar (dere Lors (androne ) Construction ) ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) Construction ) ) Construction ) ) Construction ) ) Construction ) ) Construction ) ) ) ) ) ) ) ) ) ) ) ) )	21: 200	CHARACTER CONTRACTOR
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4. Expand Security > Users. Right-click and select Create.

5. On the General tab, enter a username and password.

🕷 Oracle Enterprise Hanager Comole, Standaler	8	
Eile Mavipatar Obient Toolo Configuration		
Image: Construction     Image: Construction       Imag	Control Law - SVS(SS)ASSES FATSCORF, FATS	Path         Crosted           DEFALT         13 May 3102           DEFALT

6. On the Role tab, select Connect and Resource.

鑢 (	Create User - SYS@SPARKFS_FATSCORE.FATWIRE.COM					×				
0	eneral	Role	System	Object	Quota	XML	Consu	imer Group	Proxy Users	
	ANADIE: WAUSEI WA_ADI WA_DEF DOGSTDE EM_MOI LAP_DB ECOVEF ESOUR ALES_H ELECT_ KUSER	RPRIV MIN PLOY HY_ADM NITOR A RY_CAT CE ISTORY CATAL(	INISTRAT ALOG_OW _ROLE DG_ROLE	OR						
Gra	anted:				♦	$\approx$				
	Role							Admin Optio	n Default	
	CONN	ЕСТ						x	<ul> <li>✓</li> </ul>	
2	RESO	JRCE						x	×	
					<u>C</u> re	eate	Can	cel Show	SQL He	p

19

7. On the System tab, choose Select Any Dictionary. Click Create.

at Create User - SYS@SPARKFS_F	ATSCORE	.FATW	IRE.COM			×
General Role System Object	Quota	XML	Consumer (	Froup	Proxy Users	
Available:						
ON COMMIT REFRESH						$\square$
QUERY REWRITE						
RESTRICTED SESSION						
SELECT ANY DICTIONARY						·
SELECT ANY SEQUENCE						
SELECT ANY TABLE						
SYSDBA						
SYSOPER						
UNDER ANY TABLE						
UNDER ANY TYPE						-
	82					
Granted:	Ľ					
System Privilege					Admin Onti	on
* RELECT ANY DICTIONARY					Y Y	
2 BELECTART DICTIONART					^	-1
		_				
	<u>C</u> r	eate	Cancel	Show	SQL Help	

Database configuration is complete.

# **Next Step**

You are now ready to create and configure the data source. For instructions, refer to your Content Server installation guide.

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## Chapter 2

# Creating and Configuring an Oracle 10g Database

Use this chapter to set up an Oracle 10g database for your Content Server installation. For background information regarding database configuration and users' permissions, see Part 1, "Creating and Configuring a Database."

This chapter contains the following sections:

- Step I. Create an Oracle 10g Database
- Step II. Create a New User for Content Server

## Step I. Create an Oracle 10g Database

- 1. Execute the "Oracle Database Configuration Assistant" by doing one of the following:
  - In Unix, execute the command: dbca
  - In Windows, go to the "Oracle Programs" group and select Database -**Configuration Assistant.**

#### Note

This step displays a load screen that can take some time to complete. Be patient.



22

2. On the first screen that is displayed, click Next. In the following screen, click Next.



🗙 Database Configuration Ass	istant, Step 1 of 12 : Operations	
	Select the operation that you want to perform: © Create a Database © Configure Database Options © Delete a Database © Manage Templates	
Cancel Help	S Back Next S	

3. Select the radio button **Create a Database** and click **Next**.

XDatabase Configuration Assist	tant, Step 2	2 of 12 : Database Templates	
	Select a	template from the following list to create a database:	
	Select	Template	Includes Datafiles
	0	Custom Database	No
	0	Data Warehouse	Yes
	9	General Purpose	Yes
	0	Transaction Processing	Yes
Hyperschaftener         Bartener           Hyperschaftener         Bartener			
			Show Details)
Cancel Help		🛛 🕄 Back 🔤	<u>at &gt;&gt;</u> )

#### 4. Select the radio button General Purpose and click Next.

#### Note

Database block size **must** be at least 4096 bytes. Selecting the **General Purpose** option automatically sets the block size to 8192 bytes.

**5.** Enter a unique global database name and SID (in this example the global database name is contentserverdb. The SID is CSDB). Click **Next**.

XDatabase Configuration Assis	tant, Step 3 of 12 : Database Identification	
	An Oracle database is uniquely identified by a Global Database Name, typically or form "name.domain". Global Database Name: A database is referenced by at least one Oracle instance which is uniquely ident from any other instance on this computer by an Oracle System Identifier (SID). SID:	f the ified
Cancel Help	( <u> Back Next</u> )	

X Database Configuration Assis	stant, Step 3 of 12 : Database Identification
Database Configuration Assis	An Oracle database is uniquely identified by a Global Database Name, typically of the form "name,domain". Global Database Name: contenterverdb A database is referenced by at least one Oracle instance which is uniquely identified from any other instance on this computer by an Oracle System Identifier (SID). SID: 5008
Cancel Help	🕓 Back Next >)

🗙 Database Configuration Assi	stant, Step 4 of 12 : Management Options		
_	Each Oracle database may be managed Control or locally using the Oracle management option that you would lik	centrally using the Oracle Enterprise Manager Enterprise Manager Database Control. Choose th e to use to manage this database.	Grid e
	☑Configure the Database with Ente	rprise Manager	
	C Use Grid Control for Database M Select the Management Service	lanagement No Agents Found	
Marchitemen WestChitemen MestChitemen	🖲 Use Database Control for Databa	ase Management	
Thursdanian on	Enable Email Notifications		
March Marrier	Outgoing Mail (SMTP) Server:		
Average Average Average Average Musical Advances	Email Address:		
Mourization and Mourization	Enable Daily Backup		
Müller Statisticum Müller Statisticum	Backup Start Time:	02 🖉 🚾 🗧 AM C PM	
	OS Username:		
	Password:		
Cancel Help		G Back Next >>	

- **8.** Enter a password, re-enter the same password in the "Confirm Password" field and click **Next**.
- **9.** For enhanced security select the radio button **Use Different Passwords** and enter a unique password for each of the given users.

🔀 Database Configuration Assist	ant, Step 6 of 12 : Storage Options
	Select the storage mechanism you would like to use for the database. © File System Use the File System for Database storage.
TUNELA	C 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.
Wardsharmen Wards	C 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.
Majari (25 Malanova Ngapi (25 Malanova	Especing Kaw Devices Happing File
Cancel Help	🔇 Back Next 🔊 Einish

X Database Configuration Assis	tant, Step 7 of 12 : Database File Locations	
	Specify locations for the Database files to be created:	
	<sup>®</sup> Use Database File Locations from Template	
	C Use Common Location for All Database Files	
	Database Files Location:	rowse)
Number of States	○Use Oracle-Managed Files	
November 1	Database Area;	rowse
1 Maya2536Alamian 1 Maya2536Alamian 1 Maya2536Alamian	(Multiplex Redo Logs and Control Files)	
Markanskansen Breisen Breisen Markan	If you want to specify different locations for any database files, pick ei the above options and use the Storage page to specify each location.	ther of
	File Location Varia	ables)
Cancel Help	🔇 Back Next 📎	Einish

🔀 Database Configuration Assis	tant, Step 8 of 12 : Recovery Configurat	ion	
	Choose the recovery options for the ✓ Specify Flash Recovery Area This is used as the default for a required for automatic backup us database files and recovery file: protection and performance. Flash Recovery Area: Flash Recovery Area Size: Enable Archiving	database: all backup and recovery operation ing Enterprise Manager. Oracle re s be located on physically differ (ORACLE_BASE)/flash_recovery 2048 Edit Archive Mode Parameters,	s, and is also commends that the ent disks for data Browse M Bytes • ••
Cancel Help		🔇 Back Ne	xt 🔊 🛛 Einish

Configuration Assist	ant, Step 9 of 12 : 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, Queued Shipping, 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	( ≤ Back Next ≫) (Einish

- 14. Click the Character Sets tab and do the following:
  - **a.** Select **Choose from the list of character sets** and select **UTF-8** from the drop-down menu.
  - b. Click the National Character Set drop down-menu and select UTF8.
- 15. Leave all other options on the different tabs as is and click Next.
- **16.** For database storage, no options need to be changed. However, if you wish to change the location of the database from the default of oradata located under the Oracle installation, you can do so on this page. Click **Next**.

XDatabase Configuration Assista	nt, Step 11 of 12 : Database Storage
Storage         - 11         Controlfile         - Datafiles         B- Redo Log Groups	Database Storage From the Database Storage page, you can specify storage parameters for the database creation. This page displays a tree listing and summary view (multi-column lists) to al to change and view the following objects: • Control files • Tablespaces • Datafiles • Rollback Segments • Redo Log Groups From any object type folder, cliebte to create a new object. To delete an object, selec specific object from within the object type folder abelletick Important: If you select a database template including data files, you will not be able remove data files, tablespaces, or rollback segments. Selecting this type of template a you to change the following: • Destination of the datafiles • Control files or log groups.
Create Delete	File Location Variables
Cancel Help	(

#### **17.** Do not change any options. Click **Finish**.

Select the database creation options:	
Cancel Help & Back Next > Eit	nish )

**18.** In the "Configuration" window, review the choices that you made on the previous screens. If you need to modify your choices, click **Cancel** and make the modifications. Otherwise, click **OK** to continue.

Confirmation			×
The following operations will be A database called "contenterve A template called "contenterve	performed rdb" will b rdb" will b	: pe created. pe generated.	
Database Details:			
Use this database template t	Gene o create a pur;	ral Purpose pre-configured database optimized for general pose usage.	
Lommon Uptions			
Option	Selected		
Oracle JVM	true		
Oracle Intermedia	true		
Oracle Text	true		
Oracle XML DB	true		
Oracle OLAP	true		
Oracle Spatial	true		
Oracle Data Mining	true		
Oracle Ultra Search	true		
(	OK Ca	Save as an HTML fil	.e)

#### Note

If you are planning to use internationalization, for Content Server the key value is: National Character Set: UTF8

**19.** The following window shows the progress of the database creation. This step can take time to complete.

🗙 Database Configuration Ass	sistant	×
Database Configuration Ass	Stant Copying database files Creating and starting Oracle instance Completing Database Creation Clone database creation in progress 112 Stop	

**20.** When database creation is completed, click **Exit**.


## Step II. Create a New User for Content Server

- Locate the file emoms.properties (in <oracle home>/<server name>\_<SID>/sysman/config/).
  - a. Find the line: oracle.sysman.emSDK.svlt.ConsoleServerPort
  - **b.** The port after the line in step a is important. Make a note of it.
- 2. Run the command: emctl status dbconsole

The command should return an output similar to the following:

Oracle Enterprise Manager 10g Database Control Release 10.1.0.2.0 Copyright (c) 1996, 2004 Oracle Corporation. All rights reserved. http://godzilla:5500/em/console/aboutApplication Oracle Enterprise Manager 10g is running. Logs are generated in directory /u02/app/oracle10/product/ 10.1.0/db\_1/godzilla\_orcl10so/sysman/log

### Note

If the command returns the message that the Oracle Enterprise Manager is not running, start Oracle Enterprise Manager with the command: emctl start dbconsole

- **3.** Open a browser and do the following:
  - a. Browse to the URL http://<hostname>:<port>/em (from step 2).

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Login		_
Login to Database:contenterverdb		
* User Name		
* Password		
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**b.** Log in to the browser, using the following field values:

Field Name	Field Value
User name	sys
Password	<password creating="" db="" entered="" the="" when=""></password>
Connect As	SYSDBA

**c.** As this is the first time you are using the Oracle Enterprise Manager, a license page is displayed. Click **I Agree**.



4. Click the Administration tab.



- a. From the Security menu, select Users. Click the Create button.
- **b.** In the "Create User" screen, fill in required fields with the values that are listed in the following table:

Field Name	Field Value
Name	csuser
Enter Password	<your choice=""></your>
Confirm Password	<same password=""></same>

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Profile DEFAULT -	
Authentication Password	
* Enter Password	
* Confirm Password	
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- 5. Click the **Roles** tab.
  - **a.** Click the **Modify** button.

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Create User		
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		Modify
Role	Admin Option	Default
CONNECT		
General Roles System Privileges Object Privi	eges Quotas Consumer Groups Proxy Users	
		Show SQL Cancel OK
Copyright © 1996, 2004, Oracle. All rights reserved. About Oracle Enterprise Manager 10g Database Control	Database   <u>Setup</u>   <u>Preferent</u>   <u>Help</u>   <u>Logout</u>	

**b.** From the list of "Available Roles" (left side), select **Resource** and click the **Move** button.

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Available Roles	Selected Boles	Cancel OK
MGMT_USER OEM_MONITOR OLAP_DBA OLAP_USER RECOVERY CATALOG_OWNER RESOURCE SCHEDULER_ADMIN SELECT_CATALOG_ROLE WKUSER WM_ADMIN_ROLE		
Copyright © 1996, 2004, Oracle. All rights reserved. About Oracle Enterprise Manager 10g Database Control	Database   <u>Setup</u>   <u>Preferences</u>	Cancel OK

**Resource** is moved to the "Selected Roles" list.

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c. Click OK.

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- 6. Click the System Privileges tab.
  - **a.** Click the **Modify** button.

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System Privilege	Admin Option
General Roles System Privileges Object Privileges Quotas Consumer Groups	Proxy Users
	,
	Show SQL) Cancel OK
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**b.** From the list of "Available System Privileges" (left side), choose **Select Any Dictionary** and click the **Move** button.

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Database: contenterverdb > Users > Create User Modify System Privileges	Logged in As SYS
Available System Privileges Selected System Privileges	Cancel OK
REMOVE_ANY_WORKSPACE	,
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Select Any Dictionary is moved to the "Selected System Privileges" list.

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REMOVE_ANY_WORKSPACE RESTRICTED SESSION RESUMABLE ROLLBACK_ANY_WORKSPACE SELECT ANY SEQUENCE SELECT ANY TABLE SELECT ANY TRANSACTION SYSODBA SYSODFR UNDER ANY TABLE	
Database   <u>Setup</u>   <u>Preferences</u>   <u>Help</u>   <u>Logout</u> Copyright © 1996, 2004, Oracle. All rights reserved. <u>About Oracle Enterprise Manager 10g Database Control</u>	(Cancel) (OK)
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- **c.** (Optional) If you are creating a portal installation on WebLogic, also add the **Create View** privilege (by repeating step b).
- d. Click OK.

The database is now ready for Content Server.

- 7. In the upper right-hand corner, click Logout.
- **8.** The database is ready for Content Server. You can now create and configure the data source.

## **Next Step**

You are now ready to create and configure the data source. For instructions, refer to your Content Server installation guide.

### Chapter 3

# Creating and Configuring an MS SQL Server Database

Use this chapter to set up a SQL Server database for your Content Server (Spark) installation. For background information regarding database configuration and users' permissions, see Part 1, "Creating and Configuring a Database."

This chapter contains the following sections:

- Creating a Database on MS SQL Server 2000 SP3+
- Creating a Database on MS SQL Server 2005

## Creating a Database on MS SQL Server 2000 SP3+

#### To create and configure a database on MS SQL Server 2000 SP3+

- **1.** Create the database login:
  - a. Open "Enterprise Manager."
  - b. In the left-hand tree, select Microsoft SQL Servers > SQL Server Group > (Local) > Security.
  - c. Right-click on Logins and select New Login...
    - 1) Create a user (such as csuser), and select the proper authentication method.
    - 2) Save this user.
- **2.** Create the database:
  - a. In the left-hand tree, select Microsoft SQL Servers > SQL Server Group > (Local) > Databases.
  - b. Right-click on Databases and select New Database...
    - 1) Enter a name (such as CSDB), then modify the other fields as needed for your installation.
    - 2) Finish creating this database.
- **3.** Assign account privileges:
  - **a.** Select the newly created database in the left-hand tree and click **Open**.
  - b. Right-click on Users and select Add new Database User...
  - **c.** In the drop-down list, choose the user created in step c of this procedure. In the **Permit role membership** list, check the box next to **db\_owner**.
  - d. Save the new user.

Database configuration is complete. You are now ready to create and configure the data source. For instructions, refer to your Content Server (Spark) installation guide.

### Creating a Database on MS SQL Server 2005

#### To create and configure a database on MS SQL Server 2005

- 1. Use the Windows Account Manager to create a new user account for the CS database user (for example, csuser), and assign a password to the account.
- 1. Open SQL Server Manager Studio.
- **2.** Log in to MS SQL Server:
  - **a.** Enter your user name and password (the default user name is sa).
  - **b.** Click **Connect**.
- **3.** 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.

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

Database configuration is complete. You are now ready to create and configure the data source using the user name and password of the CS database user you created in step 1 of this procedure. For instructions, refer to your Content Server (Spark) installation guide.

### Chapter 4

# Creating and Configuring an IBM DB2 8.x Database

Use this chapter to set up a supported IBM DB2 database for your Content Server installation. For background information regarding database configuration and users' permissions, see Part 1, "Creating and Configuring a Database."

This chapter contains the following sections:

• Creating and Configuring DB2 8.x for Content Server

## Creating and Configuring DB2 8.x for Content Server

- **1.** Open DB Control Center (db2cc).
- **2.** Browse to the instance under which you want to create the new database.

If you do not have an existing instance in the left-hand tree, do the following:

- a. Right-click Instances and click Add...
- **b.** Fill in the form provided (or click **Discover**) then click **OK**.
- 3. Right-click Branch Databases > Create > Database Using Wizard...
- 4. In the "Create Database Wizard," fill in the following screens as indicated:
  - a. "Database name" Enter a unique database name (such as CSDB2), then click Next.
  - **b.** "Specify how and where to store the user tables." Leave the default option **Low maintenance** selected and click **Next**.
  - **c.** "Specify how and where to store the system catalog tables." Leave the default option **Low maintenance** selected and click **Next**.
  - **d.** "Specify how and where to store system temporary tables." Leave the default option **Low maintenance** selected and click **Next**.
  - e. "Tune the performance of this database." Click Next.
  - f. "Specify the locale for this database." Complete the following steps:
    - 1) In the Code Set drop-down list, select UTF-8.
    - 2) Under Collating Sequence, leave the default option selected.
    - 3) Click Next.
  - g. Review the actions that will take place when you click Finish, then click Finish.
- **5.** A DB2 message box appears, giving you the option to run the "Configuration Advisor." Click **No**.

A new database (with the name you provided in step 4) is now available in the left-hand tree.

- 6. In the left-hand tree, right-click **Buffer Pools** > Create.
- 7. In the "Create Buffer Pool" dialog box, do the following:
  - a. In the "Buffer Pool name" field, add a unique name (such as CSBUFFER32).
  - **b.** In the **Page size** drop-down list, select **32**.
  - c. Click OK.

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- 8. In the left-hand tree, right-click **Table Spaces > Create**.
- 9. In the "Create Table Space Wizard," fill in the following screens as explained below:
  - a. "Specify a name for your table space." Enter a unique name (such as csTableSpace) in the "Table Space name" field. Then click Next.

- **b.** "Specify the type of table space you want to create." Leave the default value and click **Next**.
- **c.** "Specify a buffer pool for your new table space." Select the buffer pool created in step 7 of this procedure and click **Next**.
- **d.** "Select the space management system that you want to use." Leave the default option **System-managed space (low maintenance)** selected and click **Next**.
- e. "Define containers for this table space." Click Add, then complete the following steps:
  - 1) In the "Define Container" dialog box, enter a unique name for this container (such as CScontainer).
  - **2)** Under "Current Directory," select a location for this table space (note that you must select a physical location on a mounted disk where you want to place this table space; if you do not have an acceptable location at this point you should create one). Once you have selected a location, click **OK**.
  - 3) Click Next in the "Define Container" dialog box.
- f. "Specify the extent and prefetch sizes for this table space." Leave the default options selected and click **Next**.
- **g.** "Select hard drive specifications." Select the appropriate option for your physical media type from the list and click **Next**.
- **h.** "Specify the dropped table recovery option for your new table space." Click **Next**.
- i. Review the actions that will take place when you click **Finish**, then click **Finish**.
- **10.** Repeat step 9 of this procedure to create a temporary table space, making the following adjustments to the procedure:
  - **a.** When completing step 9a, indicate in the name that this is a temporary table space.
  - **b.** When completing step 9b, select **System Temporary** for the type of table space.
- **11.** In the left-hand tree, select **User and GroupObjects** and right-click **DB Users > Add**.
  - **a.** In the "Database" tab, do the following:
    - 1) Select a user from the User drop-down list.

### Note

The drop-down list contains all valid system users. If there are no valid system users, you must create one before continuing.

2) Under "Grant authorities for the Selected User," select all the options.

#### Note

This is not recommended for a delivery system. Choose the options that are appropriate for your delivery system)

- **b.** Click the **Table Space** tab and do the following:
  - 1) Click Add Tablespace. In the "Add Tablespace" dialog box, select the tablespace created in step 9 of this procedure and click OK.
  - 2) In the "Table Space" tab, the new table space is now selected, but has a Ø symbol next to it. Select Grant from the Privileges drop-down list (located near the bottom of the tab).
- **c.** Repeat step b for the temporary table space created in step 10.
- **d.** Optionally, repeat step **b** to add the default table space USERSPACE1.

### Note

The default table space was created with the database. Therefore its location is not under your control.

- e. Click OK.
- **12.** In the left-hand tree, right-click the database created in step 4 of this procedure and click **Configure Parameters**. In the list that opens, make the following changes:
  - **a.** Change LOCKLIST/100 to LOCKLIST/1024
  - **b.** Change LOCKTIMEOUT/None to LOCKTIMEOUT/30
  - **c.** Change APPLHEAPSZ/256 to APPLHEAPSZ/1024
- **13.** Database configuration is complete. You are now ready to create and configure the data source. For instructions, refer to your Content Server installation guide.

### Chapter 5

# Creating and Configuring an IBM DB2 9.1 Database

Use this chapter to set up a supported IBM DB2 database for your Content Server installation. For background information regarding database configuration and users' permissions, see Part 1, "Creating and Configuring a Database."

This chapter contains the following sections:

• Installing and Configuring DB2 9.1 for Content Server

## Installing and Configuring DB2 9.1 for Content Server

To install and configure a DB2 9.1 database, you will complete the following steps:

- A. Install DB2
- B. Create a New DB2 Database
- **C.** Create a User for the New Database
- **D.** Configure the Database

### A. Install 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," select Install New.



- 5. In the "Welcome to the DB2 Setup Wizard," click Next.
- 6. In the "Software License Agreement" screen, click Accept, then click Next.



7. In "Select the Installation Type," select **Typical** and click **Next**.

🗙 DB2 Setup wizar	d - DB2 Enterprise Server Edition	_ 🗆 🗙
Introduction     Software License     Agreement     Installation type     Installation action     Software Setup     OAS user     Zoftware Setup     Brartitoring     options     Instance-owning     User     I. Tools catalog     I2. Notification     setup     I3. Contact     I4. Summany	Select the installation type  Typical: 460 - 560 MB Compact: 380 - 460 MB Constant and the installation type Typical The typical setup includes basic database server function, database administration tools, and most product features and functionality. To add features for application development and other optional functionality later in the setup process, click Custom. To view all available features and those selected for a typical installation, press the View Features button. View Features	
	▲ <u>B</u> ack <u>Next</u> <u>Finish</u> Can	el Help

8. In "Select installation, response file creation, or both," select Install DB2 Enterprise Server Edition on this Computer and click Next.



**9.** In "Select the installation directory," either enter a directory or use the default and click **Next**.

- **10.** In "Set user information for the DB2 Administration Server":
  - **a.** Keep the defaults, unless a previous attempt to install DB2 failed.
  - **b.** Enter a password.
  - c. Click Next.

🗙 DB2 Setup wizar	rd - DB2 Enterprise Ser	ver Edition		
1. Introduction         2. Software License         Agreement         3. Installation type         4. Installation action         5. Installation         directory	Set user inform The DB2 Administration A user with a minimal s the DAS.	nation for the DB2 Adm Server (DAS) runs on your computer et of privileges is required to run the	inistration Ser to provide support rec DAS. Specify the requi	Ver Juired by the DB2 tools. red user information for
<u>6. DAS user</u> 7. Instance setup 8. Partitioning options 9. Instance-owning user	UID Group name	dasadm1	<b>√</b> <u>U</u> se default UID	
10. Fenced user 11. Tools catalog 12. Notification setup 13. Contact	Confirm password		✓ Use default <u>G</u> ID      Password      You must specify a v	Alue.
14. Summary	⊖ <u>Existing user</u> User name	/home/dasusr1		
			Enish Can	el Help

11. In "Set up a DB2 instance," select Create a DB2 instance and click Next.

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Introduction     Software License Agreement     Installation type     Installation action     S. Installation action     Goal action     Goal action     Software Setup     Reaction     Software     Instance setup     S. Partitioning     options     J. Instance - owning     user     10. Fenced user     11. Tools catalog     12. Notification     setup     13. Contact     14. Summary	Set up a DB2 instance A DB2 instance is an environment in which you store data and run applications. You use this product. If you would like to add this computer to an existing partitioned database environm create an instance on this computer. The instance should be created on the instance partition server. © Create a DB2 instance ③ Do not create a DB2 instance	must have an instance to ent, you should not e-owning database
	< <u>Back</u> <u>Next</u> <u>Finish</u> Cano	el Help

**12.** In "Set up partitioning options for the DB2 instance," select **Single partition instance** and click **Next**.



- **13.** In "Set user information for the DB2 instance owner":
  - **a.** Keep the defaults, unless a previous attempt to install DB2 failed.
  - **b.** Enter a password.
  - c. Click Next.

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Introduction     Software License     Agreement     Installation type     Installation action     Installation	Set user inform Specify the instance-ow instance functions, and instance will be the sam	nation for the DB2 inst ning user information for the DB2 ins will store instance information in the le as the user name.	ANCE OWNET tance. DB2 will use thi user's home directory.	s user to perform The name of the
<u>6</u> . DAS user	User name	db2inst1		
7. Instance setup 8. Partitioning	UID		<b>√</b> <u>U</u> se default UID	
9. Instance-owning	Group name	db2grp1		
user 1 <u>0</u> . Fenced user	GID		<b>√</b> Use default <u>G</u> ID	
11. Tools catalog	Password		Password	
setup	Confirm password		• rou must specily a	
13. Contact 14. Summary	Home directory	/home/db2inst1 ···		
	○ <u>E</u> xisting user			
	User name			
			Einish Can	cel Help

- **14.** In "Set user information for the fenced user":
  - **a.** Keep the defaults, unless a previous attempt to install DB2 failed.
  - **b.** Enter a password.
  - c. Click Next.

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7. Instance setup 8. Partitioning options	UID Group name	db2fgrp1	✓ <u>U</u> se default UID	
9. Instance-owning user	GID			
1 <u>0</u> . Fenced user 11. Tools catalog	Password		Password • You must specify a 1	value.
12. Notification setup	Confirm password			
13. Contact 14. Summary	Home directory	/home/db2fenc1	•••	
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	User name		***	
		<b>▲</b> <u>B</u> ack	Next 🕨 🔄 <u>F</u> inish Can	cel Help

**15.** In "Prepare the DB2 tools catalog," select **Do not prepare the DB2 tools catalog** and click **Next**.

🗙 DB2 Setup wizar	d - DB2 Enterprise Serv	er Edition	_
1. Introduction         2. Software License         Agreement         3. Installation type         4. Installation action         5. Installation	Prepare the DB. Certain DB2 tools such a servers in your environm	2 tools catalog s the Task Center and scheduler require a DB2 tools catalog on ent. The DB2 tools catalog must be stored in a DB2 database. tools catalog	one of the DB2
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7. Instance setup 8. Partitioning	Database		
options 9. Instance-owning	<u>One</u> w	TOOLSDB	
user 10 Fenced user	⊖Existing	<select></select>	
11. Tools catalog	Schema		
12. Notification setup	ONe <u>w</u>	SYSTOOLS	1
13. Contact 14. Summary	OExisting	<select></select>	
	€ <u>D</u> o not prepare th	e DB2 tools catalog	
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**16.** In "Set up notifications," do one of the following:

🗙 DB2 Setup wizar	rd - DB2 Enterprise Server Edition	_
Introduction     Software License     Agreement     Installation type     Installation type     Installation action     Installation     Installation     Installation     Installation     Instance setup     Partitioning     options     Instance-owning     user     I. Fenced user     I. Tools catalog     I2. Notification     setup     I3. Contact     I4. Summany	Set up notifications         You can set up your DB2 server to automatically send e-mail or pager notifications to ale         when a database needs attention. The contact information is stored in the administration         need an unauthenticated SMTP server to send these notifications.         Image: Set up your DB2 server to send notifications         Notification SMTP server         Image:	ert administrators n contact list. You
	▲Back Next Finish Cancel	Help

- 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**.

17. In "Start copying files," check that your options are correct and click Finish.



**18.** Allow the installation to proceed.

X Installing DB2 Enterprise Server Edition	×
Please wait while the DB2 Setup wizard installs DB2 Enterprise Server Edition on your computer and performs the required configuration. This may take several minutes.	
Task: Installing GSKit support	
0% 100%	
Overall progress:	
0% 100%	

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



**20.** The installation of DB2 9.1 is now complete.

### B. Create a New DB2 Database

- 1. Log in as db2inst1 (or your instance user created during the installation, step 13).
- 2. Navigate to: ./sqllib/bin and run db2cc
- 3. In the "Control Center View" screen, select Advanced.

Control Center View			
Control Center View			
Specify the Control Center view that you want to display.			
⊖ <u>B</u> asic			
C Advanced			
O <u>C</u> ustom Modify			
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:
  - a. Click the plus sign next to the tree option All Systems.

🔁 Control Center	
<u>Control Center</u> <u>Selected</u> <u>Edit</u> <u>View</u> <u>T</u> ools	Help
16 🕈 18 📼 3: 🔯 🗉 🕿 🖵 🔤	• • • · · · · · · · · · · · · · · · · ·
🗀 Object View	
Control Center	All Databases
+- Ca All Systems	Name
- All Databases	
	0 of 0 items displayed 🛛 🖓 😫 🛱 🎝 Default View 🄶 View
	🗀 All Databases 🕜 Help 🗙
	Actions: Select an object from the list above to display more
	<u>Create New Database</u>

- **b.** Click on the expanded branch **All Databases**. (If you have not created a database previously, this branch is empty.)
- c. Right-click on the branch All Databases and select Create Database > Standard.

- 5. In "Specify a name for your new database":
  - **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**.

🔞 Create Data	ibase Wizard	
1. Name	Specify a name for your new database	
<u>3</u> . Region <u>4</u> . Summary	This wizard helps you create and failor a new database. To create a basic database, type a new hame, 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>	ла
	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 √</li> </ul>	
	<u>Hext</u>	Cancel

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

🔒 Create Data	base Wizard 🗆 🗴
1. Name       2. Storage       3. Region       4. Summary	Specify where to store your data 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 → Free Space (MB) ♦ File System Capacity (MB) ♦ Per
	0 of 0 items displayed ↓ <sup>A</sup> <sub>Z</sub> S <sup>L</sup> <sub>P</sub> d → (P <sup>A</sup> <sub>Q</sub> ) Default V <sup>^</sup> View <u>▲Back</u> <u>Next</u> <u>Finish</u> Cancel

7. In "Specify the locale for this database," ensure that the drop-down "Code set" displays UTF-8 and click Next.

🔒 Create Datab	ase Wizard		
<u>1</u> . Name	Specify the I	locale for this database.	
3. Region	different character s	/ and code set) determines the set of characters your database uses. It also determines how strings are compared.	
4. Summary	Database locale	M	
	Country/Region d	lefault 7	
		Territory US	
		Code set UTF-8	
			_
	Databases enable	ed for XML must use code set UTF-8. Other values will disable	
	XML functions.		
	Collating Sequence		
	⊂ S <u>v</u> stem	Character strings are sorted according to the code set you specify above.	
	<u>O</u> ldentity	Character strings are sorted according to their hexadecimal value.	
	⊖l <u>d</u> entity_16bit	Character strings are sorted using the Compatibility Encoding Scheme for UTF-16: 8-Bit specification (CESU-8)	
	<u>⊖U</u> CA400_NO	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.	
	ONESChar	Character strings are sorted using System with additional rules for the specific codeset/territory.	
			ncel
**8.** In "Review the actions that will take place when you click finish," confirm that everything looks correct and click **Finish**.

🔁 Create Data	abase Wizard	
Create Data	Abbase Wizard         Review the actions that will take place when you click Fini         When you click Finish, the wizard creates a database and the necessary table spaces. To change parameters, go back to the appropriate page in this wizard. To view the equivalent command, Command         Create database VMDB291         Automatic storage database: Yes         Table space prefetch size: Automatic         Default Automatic Storage User Table Space         Default Automatic Storage Temporary Table Space         Default Automatic Storage Temporary 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/db2lnst1	sh e any of the click Show
	Show Command	
	<b>▲</b> <u>B</u> ack	<u>Finish</u> Cancel

**9.** Allow the "Progress" window to complete creating the database. The window will close automatically when the database has been created.



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

The figure below shows that a single database named vmdb291 is present in the control center

🔁 Control Center		_ 🗆 🗙
Control Center Selected Edit View Tools	Help	
┺幋ଝ◙ѷҨ♥ҞѺ(	:= { ?	
🛅 Object View		
Control Center	All Databases	
All Systems	Name 🔶 System 🖨	Instance 🕸 Type 🕸 Database 🖨 Path 🖨 Commen
AT Databases	🗍 VMDB291 LOCALH.	. db2inst1 Local VMDB291 /hom
	1 of 1 items displayed	Åz 🐎 🕀 ∰ 🕅 🌾 🏹 Default View 🕺 View
	🗀 All Databases	() Help ×
	Actions:	Select an object from the list above to display more
	🛟 Create New Database	

### C. Create a User for the New Database

1. 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 FatWire product.

Example of how to create a user named csuser on Linux:

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

- **2.** 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 on the branch DB Users and select the Add option.

👌 Control Center								
Control Center Selected Edit View Tools Help								
▙ % 않 ☞ 늘  별 옷 ♬ <	•• = { ?		<					
🛅 Object View	Dbject View							
Control Center	LOCALHOST - db2inst1 - VMDB2:	91 – DB Users						
🛨 🧀 All Systems	Name 🔶							
📑 🗀 All Databases	A DB2INST1							
	in the second							
- 🛄 Tables								
The Cache Objects								
— 🛅 Schemas	1 of 1 items displayed $\downarrow$	2 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Default View 🍧 View					
— 🛅 Indexes								
— 🛅 Table Spaces	🗅 DB Users		(?) Help 🗙					
- 🗀 Event Monitors								
🗕 🗀 Buffer Pools	Actions:	Select 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)								
	•	Press.						

- **3.** In the "Add User" application:
  - **a.** Select the user that was created in step C on page 74.
  - **b.** Under "Authorities," select all check boxes.
  - c. Click OK.

🔁 Add User					[		
LOCALHOST - db2inst1 - VMDB291							
View Table Space	Function	Proc	edure	Methoo	d Packag	je 📔	
Database	Schema		Тε	able	Index		
Specify a user name. You c	an select a user	name fro	om the list	t or type or	ne in.		
User ADM	Δ						
Choose the appropriate aut Authorities Create to database Create tables Create packages Register routines to ex Database administrato Create <u>s</u> chemas implic Access to the load util Create external routin Connect to guiesced o Security administrator	horities to grant ecute in databa or authority itly ty es authority authority	se mana	ger's proc	er.			
0	Cancel	Appl	/ <u>R</u> e:	set Sh	o <u>w</u> SQL H	lelp	

### D. Configure the Database

- 1. Right-click on 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 here:

LOCKTIMEOUT	30
APP_CTL_HEAP_SZ	1024
APPHEAPSZ	1024

#### **b.** Click **OK**.

R	🔁 Database Configuration - VMDB291									
	Select the value field of	a parameter to cha	inge π ≏∣poi	s valu odina	e. Valu		Pending Value Eff		Dun	
	Applications	Value		lang	v aru	- 7	r ending value En			
									Voc	
		10000							Voc	
		Nono							res	
	MAYADDIS								Voc	
	MAXAFFID	AUTOMATIC(40)						,	Yes	
	MAXHLOP								res	
		AUTUMATIC(60)							res	
	Environment								- 1	
	ALT_COLLATE								- 1	
	CODEPAGE	1208							- 1	
	CODESET	UTF-8								
	COLLATION SECUL		_							24
	109 of 109 iten	ns displayed	$\downarrow^A_Z$	34	₫₽	œ	Default View*	~	Viev	v
	Hint									
		OK		Cano	el	App	oly Sho <u>w</u> Comm	hand	Help	2

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**3.** Right-click on 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: All Systems > LOCALHOST > Instances > name\_of\_your\_instance
  - **b.** Right-click on the instance.
  - c. Select Stop.

🔁 Control Center		_ 🗆 🗙						
Control Center Selected Edit View Tools	<u>H</u> elp							
🔒 🎌 🔒 🖬 🍃 🔯 🍯 🧏	•• = < ?	<						
🗀 Object View	🗀 Object View							
Control Center	LOCALHOST - db2inst1 - VMDB2:	91 – DB Users						
All Systems	Name 🔶							
	A DB2INST1							
instances	A CSUSER							
Deteborer								
— 🛅 Views								
🗕 🛅 Aliases	2 of 2 items displayed 🛛 🌡	Az 詩 🕀 🛱 🌾 🏹 Default View 🌷 View						
— 🗀 Nicknames								
🖶 🛅 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	— 🗀 Table Spaces							
Event Monitors								
- Application 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. Expand the following "Control Center" tree branch: All Systems > LOCALHOST > Instances > name\_of\_your\_instance
  - **b.** Right-click on the instance.
  - c. Select Start.



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 FatWire software product.

# Part 2 Installing a Web Server

This part describes how to install a web server. It contains the following chapters:

- Chapter 6, "Worksheets for Documenting the Web Server Installation"
- Chapter 7, "Installing IIS on Windows"
- Chapter 8, "Installing Apache on Solaris and Linux"

### Chapter 6

# Worksheets for Documenting the Web Server Installation

This chapter contains worksheets listing the web server parameters that you need to track.

Print this chapter. Then, as you install software, fill in the blank fields in these worksheets with the values of the specified parameters. You will save considerable time by doing this. Additionally, if something fails during the installation, the information in these worksheets will be valuable while you are troubleshooting. Use a separate set of worksheets for each installation so that each installation is fully documented.

The worksheets are constructed as tables that are divided into the following categories:

- Key to Sample Values
- Web Server Parameters

# Key to Sample Values

The installation worksheets list parameters along with their sample values. Each sample value is classified as one of the following:

- **Default**: the value is automatically created at the time of the installation.
- Normal: the value represents the normal configuration for a simple installation. Do not use a different value unless your system requires it.
- **Option**: the value must be chosen from a preset list of options.
- **Suggested**: the value is recommended for the parameter.

#### Note

A **Suggested** account name has an Example password value. We strongly recommend that you select a password for this account that is appropriate for the security of your system.

• **Example**: the value is only an example that must be replaced by the value that is appropriate for your installation. The example value is not likely to be valid in your environment.

## **Web Server Parameters**

#### Table 1: IIS Web Server Parameters

Parameter	Shown As	Comments	Your Value
Web Version	WebVersion	Example:	
		Apache 1.3.37	
Web Host Name	WebHost	Example:	
		jeeves	
Web Host IP Address	WebIP	Example:	
		104.222.111.155	
Web Server Port	WebPort	Default:	
		80	
IIS Only:	FilterName	Suggested:	
Filter Name (ISAPI plug- in name)		iisforwardfilter	
Apache Only:	ApacheRoot	Example:	
Apache Root Directory		/usr/apache	

Parameter	Shown As	Comments	Your Value
Web Version	WebVersion	Example:	
		Apache 1.3.37	
Web Host Name	WebHost	Example:	
		jeeves	
Web Host IP Address	WebIP	Example:	
		104.222.111.155	
Web Server Port	WebPort	Default:	
		80	
IIS Only:	FilterName	Suggested:	
Filter Name (ISAPI plug- in name)		iisforwardfilter	
Apache Only:	ApacheRoot	Example:	
Apache Root Directory		/usr/apache	

### Table 2: Apache Web Server Parameters

Web Server Parameters

# Chapter 7 Installing IIS on Windows

This chapter explains how to install and test Microsoft's Internet Information Services (IIS). It contains the following sections:

- Step I. Install IIS
- Step II. Document Your IIS Installation
- Step III. Verify the Installation
- Next Step

#### Note

Typically, IIS is either partially or fully installed on most Windows 2000 machines.

- If IIS is only partially installed or not installed, start with the first section, "Step I. Install IIS," on page 88.
- If IIS is fully installed, start with the section "Step II. Document Your IIS Installation," on page 88.

# Step I. Install IIS

If IIS is not installed or is only partially installed, follow Microsoft's instruction for installing IIS on a Windows 2000 system.

As a convenience, here is a quick synopsis of the instructions:

- 1. Select Start > Settings > Control Panel.
- 2. Select Add/Remove Programs.
- 3. Select the Add/Remove Windows Components tab on the left.

The Add/Remove Windows Components Wizard appears.

**4.** Select **Internet Information Services (IIS)** and then follow the instructions for installing it.

## Step II. Document Your IIS Installation

We strongly recommend that you document the details of your IIS installation in Table 3, "IIS Parameters."

#### Table 3: IIS Parameters

Parameter	What It Holds	Your Value
Web Version (WebVersion)	The version number of the IIS software that you installed.	
Web Host Name (WebHost)	The name by which the installation machine is known on the network.	
Web Host IP Address (WebIP)	The numeric Internet Protocol address assigned to the web server host machine.	
Web Server Port (WebPort)	The port number assigned for web server communications. By default, it has the value 80.	

### Step III. Verify the Installation

After you have installed IIS, you start it and then browse to it in a web browser to determine whether it is serving pages as it should.

### A. Start IIS

You can start the various IIS services in various ways. To be sure that all the necessary services are running, start IIS from the **Services** node.

#### To start IIS services

1. Right-click on the My Computer icon.

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- 2. Select Manage from the right-mouse menu.
- **3.** In the **Computer Management** dialog box, expand the **Services and Applications** node in the tree.
- 4. Select Services.
- 5. In the list of services on the right, right click IIS Admin Service.
- 6. Select Start from the right mouse menu.

### To start or stop the default web site only

- 1. Right-click on the MyComputer icon.
- 2. Select Manage from the right mouse menu.
- **3.** In the **Computer Management** window, expand the **Services and Applications**. node in the tree.
- 4. Expand the Internet Information Services node.
- 5. Right-click on **Default Web Site**.
- 6. Select Start or Stop, as appropriate, from the right mouse menu.

### B. Verify that IIS is Serving Pages

To verify that IIS can serve pages, test it from both the server that is hosting it and from another browser on the network.

### To verify that IIS can serve pages

- 1. Start a browser on the host on which IIS is running.
- **2.** From the browser, go to the following URL:

http://WebHost:WebPort

- **3.** Do one of the following:
  - If the browser displays the IIS home page, then IIS is installed and running properly. Continue to step 4.
  - If the browser returns an error, consult Microsoft's documentation, determine what went wrong, and fix it before you continue.
- **4.** Start a browser on another machine on your network (a host other than the machine hosting IIS).
- 5. From the browser, go to the following URL:

http://WebHost:WebPort

If the browser displays the IIS "Under Construction" page, then IIS is installed and running and the network naming service appears to be working properly.

# **Next Step**

Configure the web server to run with WebLogic and Content Server. For instructions, refer to the installation guide for your configuration.

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### Chapter 8

# **Installing Apache on Solaris and Linux**

This chapter describes how to install and configure Apache HTTP Server on Solaris and Linux systems. As previously mentioned, you can install Apache on the same machine that will host WebLogic and Content Server, or you can install and use it on a separate host.

This chapter contains the following sections:

- Step I. Install Apache
- Step II. Document Your Apache Parameters
- Step III. Verify that Apache Contains the Correct Module
- Step IV. Verify that Apache Runs Properly
- Next Step

# Step I. Install Apache

- 1. Apache HTTP Server can be pre-installed on Solaris 8, Solaris 9, Linux RedHat, and Linux SuSE systems. Determine whether Apache is installed on the environment(s) on which you plan to run it.
- **2.** Do one of the following:
  - If Apache is already installed, continue with "Step II. Document Your Apache Parameters," on page 92.
  - If Apache is not already installed, 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. If you want to build it from source, refer to the information that the Apache Foundation makes available at

http://www.apache.org/ and follow their instructions.

# **Step II. Document Your Apache Parameters**

We strongly recommend that you document the details of your Apache installation in Table 4, "Apache Parameters."

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

#### Table 4: Apache Parameters

# Step III. Verify that Apache Contains the Correct Module

#### Note

This section applies only to Apache version 1.3x.

Apache is modular software, built from a set of modules. WebLogic Server requires that the mod\_so.c module be present on the machine that is hosting the Apache web server. Please verify that your Apache server contains this module by using the command httpd with the -l option and search for mod\_so in the output.

For example:

\$ ApacheRoot/bin/httpd -1 | grep `mod\_so'
mod so.c

Examine the output and do one of the following:

- If the output from the preceding command contains mod\_so.c, then your version of Apache contains the correct module. Proceed to "Step IV. Verify that Apache Runs Properly," on page 93.
- If the output from the preceding command does not contain mod\_so.c, you must rebuild and reinstall Apache. For guidelines, see "Step I. Install Apache," on page 92.

## Step IV. Verify 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 (given in "Step I. Install Apache," on page 92).

### **Next Step**

Configure Apache to run with WebLogic and Content Server. For instructions, refer to the installation guide for your configuration.

Next Step

# Part 3 Installing and Configuring LDAP

If you chose to use LDAP, Content Server requires access to a supported LDAP server that is specifically configured for the product. This part describes how to install and configure a supported LDAP server for integration with Content Server.

### Note

You must set up a supported LDAP server before you run the CS LDAP integrator.

This part contains the following chapters:

- Chapter 9, "Setting Up Sun Access Manager 7.0"
- Chapter 10, "Setting Up Sun Directory Server 6.0"
- Chapter 11, "Setting Up OpenLDAP 2.3.x"
- Chapter 12, "Setting Up the WebLogic 9.x Embedded LDAP Server"
- Chapter 13, "Setting Up Oracle Directory Server 10.x"
- Chapter 14, "Setting Up MS Active Directory Server 2003"

# Chapter 9 Setting Up Sun Access Manager 7.0

This chapter provides instructions for setting up the currently supported Sun Access Manager for use with Content Server.

#### Note

Sun Access Manager is installed as part of Sun Portal Server 7, which means that either Sun Access Manager and Sun Directory Server were installed locally on your portal server, or you elected to configure Sun Access Manager to connect to a remote instance of Sun Java Systems Directory Server. In either case, you already have Sun Access Manager installed and configured for your application server and portal server.

Note that you must set up Sun Access Manager before you run the CS LDAP integrator.

This chapter contains the following sections:

- Start/Stop Commands
- Creating CS Users in Sun Access Manager

# **Start/Stop Commands**

This section lists commands for starting and stopping Sun Access Manager.

To start Sun Access Manager:

• On Solaris:

./usr/sbin/amserver start

• On Unix (except Solaris):

<sun\_portal\_home>/identity/bin/amserver start

• On Windows:

Start --> Programs --> Sun Microsystems --> Sun One Identity --> Start Sun One Identity Servers --> Start

To stop Sun Access Manager:

• On Solaris:

./usr/sbin/amserver stop

• On Unix (except Solaris):

<sun\_portal\_home>/identity/bin/amserver stop

• On Windows:

```
Start --> Programs --> Sun Microsystems --> Sun One Identity --> Stop Sun One Identity Servers --> Stop
```

# **Creating CS Users in Sun Access Manager**

In this section, you will use the Sun Access Manager console to create Content Server users in the backend LDAP server that is associated with Sun Access Manager.

#### To create Content Server users in Sun Access Manager

1. Access the following URL:

http://<app\_server\_address>:<port>/amconsole

- 2. Log in using the user name (typically amadmin) and password that was selected during the installation of Sun Access Manager.
- **3.** When logged in, you will see two large frames. The left-hand frame has a hierarchy that can be navigated. The right-hand frame has details for the item selected on the left.

			Search   Logout   Help
♦ Sun.			Welcome
Sun java" System Access Manager			
Identity Management Service Configuration	on Current Sessi	ons Federation Management	
vm k	vm		
View: Organizations	View: General	<u> </u>	Save Reset
Organizations (3 items)	General Proper	ties	
New Delete Name	Domain Name:		
□ CommunitySample □ DeveloperSample □ DeveloperSample	Organization Status:	Active •	
	Organization Aliases:	suse93portal7a.vm.fatwire.com vm	<u> </u>
			<b>.</b>
		Add Remove	
	DNS Alias Names:		<b>_</b> _
	•	1	

**4.** In the left-hand frame, click the link **DeveloperSample** (or the portal site which you used when installing Content Server).

5. Click the View drop-down menu. From here you may select Roles, Groups, or Users. As you will be adding a new user, select Users.

<b>♦</b> Sun		Search   Logout   Help Welcome amAdmin
Identity Management Service Configuratio	n Current Sessions Federation Management	
View: Organizations Organizations Organizations Organizations Organizations New. Services Nam Roles Policies There Agents View. Services	View: General General Properties Domain Name: Organization Status: Active Organization Aliases: DeveloperSample	Save Reset
	DNS Alias Names:	

6. A list of all known users is displayed in the left frame. Click New.

			Search I	_ogout Help
Sun Java- System Access Manager			Welco <u>amAdr</u>	me <u>min</u>
Identity Management Service Configuration	Current Sessions F	ederation Management		
<u>vm</u> > DeveloperSample ▷	fwadmin			<u></u>
View: Users	View: General	V	Save	Reset
Users (1 item)			* Indicates r	equired field
New Delete fwadmin Search	First Name:			
User ID Full Name	* Last Name:	default		
☐ fwadmin fwadmin ▶	* Full Name:	fwadmin		
	Password:	Change		
	Email Address:			
	Employee Number:			
	Telephone Number:			
	Home Address:			
	* User Status:	Active 🔽		
	Account Expiration Date:	Format: mm/dd/vwv bb:mm		•

- 7. Select the following services from the list in the right-hand frame:
  - Mobile Address Book
  - Mobile Calendar
  - Mobile Mail
  - Portal Desktop
  - Portal Subscriptions
  - SSO Adapter

Click Next.

		Search   Logout   Help
Sama		Welcome
Sun Java <sup>™</sup> System Access Manager		amAdmin
Identity Management Service Configuration	Current Sections Fodoration Management	
Identity Management Service Configuration	Current Sessions Federation Management	
<u>vm</u> > DeveloperSample ♪	New User - Step 1 of 2	
View: Users	Select the services to be assigned to the user	
Users (1 item)	Available Services	
New Delete fwadmin Search	¥ E	
Advanced Search	Access List	
User ID Full Name	Authentication Configuration	
🗖 fwadmin fwadmin 🖡	Mobile Address Book	
	Mobile Calendar	
	netiel V potal1 Desktop	
	portal 1 Subscriptions	
	SSO Adapter	
	Back Next	Cancel
		Cancer

8. In the "New User" form, fill out the required fields (marked by a red \*). Ensure that "User Status" is set to Active. Click Finish.

♠ Cum		Search   Logout   F Welcome	lelp
Sun Java= System Access Manager		<u>amAdmin</u>	
Identity Management Service Configuration	Current Sessions Feder	ation Management	
vm > DeveloperSample  >	New User - Step 2 of	2	
View: Users	Enter Required User At	tributes	
Users (1 item)		* Indicates required	field
New Delete fwadmin Search	User		
User ID Full Name	* User ID:	demouser	
☐ fwadmin fwadmin ▶	First Name:		
	* Last Name:	demo	
	* Full Name:	user	
	* Password:	****	
	* Password (confirm):	*****	
	* User Status:	Active 💌	
	Back Finish	Canc	el:
	1		

- **9.** Assign Groups to the user:
  - a. Locate the newly created user (the fastest way is to use the Search function).

			Search   L	ogout   Help
👁 Sun			Welcon	ne
Sun Java~ System Access Manager			amAdm	<u>in</u>
Identity Management Service Configuration	Current Sessions   F	ederation Management		
<u>vm</u> > DeveloperSample ♪	demouser			<b>^</b>
View: Users	View: General	•	Save	Reset
Users (1 item)			* Indicates re	quired field
New Delete *user Search	First Name:			
Advanced Search	* Last Name:	demo		
☐ demouser user ▶	* Full Name:	user		
	Password:	Change		
	Email Address:			
	Employee Number:	[		
	Telephone Number:			
	Home Address:			
	* User Status:	Active 💌		
	Account Expiration Date:			<b></b>
	Expiration Date:	Format: mm/dd/vvvv hh:mm		•

FatWire software **b.** In the right-hand frame, select **Groups** from the "View" drop-down menu.

Sun Java~ System Access Manager	Search   Logout   Help Welcome <u>amAdmin</u>
Identity Management Service Configuration	Current Sessions Federation Management
View: Users Ţ Users (10 items) New Delete user* Search Advanced Search User ID Full Name ☐ demouser user ▷ ☐ user_analyst user analyst ▷ ☐ user_analyst user_analyst ▷ ☐ user_athor user_author ▷ ☐ user_designer user_designer ▷ ☐ user_expert user_expert ▷ ☐ user_marketer user_marketer ▷ ☐ user_pricer user_pricer ▷	View: Groups       ✓         The Selected list contains the groups associated with this user.         Use Search to find a specific group.         *       Search         Available:         PageEditor         GE Lighting-GeneralAdmin         BurlingtonFinancial-Designer         GE Lighting-WorkflowAdmin         FirstSitell-ProductEditor         GE Lighting-Designer         BurlingtonFinancial-Checker         FirstSitell-ProductAuthor         Add          Add          Add          Add          Remove          Remove All

- c. In the "Available" list box, select all Groups that you wish this user to have. In this example, three groups were assigned to the user: Spark-SiteAdmin, Spark-SparkContentUser, Spark-GeneralAdmin (listed in the "Selected" list box). For more detailed information about available groups, see the *Content Server Administrator's Guide*.
- d. Click Add.
- e. Click Save.

		Search   Logout   Help
Sun Java- System Access Manager		Welcome <u>amAdmin</u>
Identity Management Service Configuration	Current Sessions Federation Management	
vm > DeveloperSample	Use Search to find a specific group.	
View: Users	* Search	
Users (10 items)          New       Delete       user*       Search         Advanced Search         User ID       Full Name         □ demouser       user         □ user_analyst       user_analyst         □ user_approver       user_analyst         □ user_author       user_author         □ user_checker       user_checker         □ user_designer       user_designer         □ user_designer       user_expert         □ user_expert       user_expert         □ user_marketer       user_marketer         □ user_pricer       user_pricer	Available:         PageEditor         GE Lighting-GeneralAdmin         BurlingtonFinancial-Designer         GE Lighting-WorkflowAdmin         FirstSiteII-ProductEditor         GE Lighting-Designer         BurlingtonFinancial-Checker         FirstSiteII-ProductAuthor         Add ♥       Add All ♥         Remove △       Remove All ♠         Selected:       Spark-SiteAdmin         Spark-GeneralAdmin       Spark-GeneralAdmin	
		Save Reset

**10.** (Optional) Test your new user by logging in to the portal (must be the organization under which the user was created and Content Server was installed; for example, DeveloperSample Organization).

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# Chapter 10 Setting Up Sun Directory Server 6.0

This chapter shows you how to set up Sun Directory Server 6.0 for use with Content Server running on Sun Portal Server 7.

#### Note

You must set up Sun Directory Serve before you run the CS LDAP integrator.

This chapter contains the following sections:

- Start/Stop Commands
- Installing Sun Directory Server
- Post-Installation Steps
- Completing and Verifying the LDAP Configuration
- Modifying User Passwords

# **Start/Stop Commands**

This section contains commands for starting and stopping Sun Directory Server and the Sun Java Web Console.

## **Sun Directory Server**

• To start:

/opt/sun/ds6/bin/dsadm start <instance\_dir>

• To stop:

/opt/sun/ds6/bin/dsadm stop <instance\_dir>

### Sun Java Web Console

• To start:

/opt/sun/webconsole/bin/smcwebserver start

• To stop:

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/opt/sun/webconsole/bin/smcwebserver stop
# Installing Sun Directory Server

This section shows you how to install Sun Directory Server 6.

- 1. Download the Directory Server 6 package from the Sun website.
- 2. Decompress the file into a temporary directory and change to that directory.
- **3.** Within the temporary directory, change to the directory corresponding to your operating system and launch the installer.
- 4. In the "Welcome" screen, click Next.

<u>چ</u>	Welcome
Java	Welcome to the Sun Java(TM) Enterprise System; serious software made simple.
Java <sup>™</sup> Enterprise	Before you begin, please refer to the <i>Release Notes</i> and <i>Installation Guide</i> , available at http://docs.sun.com/prod/entsys.5.
System	You can install any or all of the Enterprise Network Services provided by the Java Enterprise System.
Sumerican Sector	Copyright 2006 Sun Microsystems, Inc. All rights reserved. Use is subject to license terms.
	Next > Cancel Help

5. In the "Software License Agreement" screen, read the license agreement and click **Yes, Accept License**.

ي ا	Software License Agreement			
Java	Before you can install this product, you must read and accept the agreement under this product is licensed for use.	which		
Java™ Enterprise	Sun Microsystems, Inc. ("Sun") SOFTWARE LICENSE AGREEMENT ("SLA") and ENTITLEMENT for SOFTWARE			
System	A. ENTITLEMENT for SOFTWARE. Capitalized terms not defined in this Entitlement have the meanings ascribed to them in the SLA (attached below as Section B). These terms will supersede any inconsistent or conflicting terms in the SLA			
	Licensee ("You"): The entity receiving the Software from Sun.			
	Effective Date: Date You receive the Software.			
C C C I	Software: Sun Software Portfolio, which may include the following:			
559	Solaris 10, Sun Java System Access Manager, Sun Java System Directory Server Enterprise Edition, Sun Java Directory Proxy Server, Sun Java System Identity	•		
Sun.	Have you read, and do you accept, all of the terms of the preceding Software Licen: Agreement? If you Click <b>Decline</b> , the installer will exit without installing any products	se 5.		
	& Back Yes, Accent License > Decline	Hein		

- 6. In the "Choose Software Components" screen, do the following:
  - a. Select Directory Server Enterprise Edition 6.0.
  - **b.** Expand the node and make sure that **Directory Service Control Center** is listed and selected.
  - c. Click Next.

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*	Choose Software Components					
Java	Select All	Deselect All		Rescan System		
lava™		Componen	t Name	Status Details		
Enterprise	🗣 🦵 Service f	Registry 3.1		<b></b>		
System	Directory & Id	entity Services				
	🗣 🥅 Access N	- TAccess Manager 7.1				
← 🔽 Directory Server Enterprise Edition 6.0						
Availability Services						
						2221
	🗌 🕅 All Share	ed Components		•		
	A.T.					
Sun Java(TM) System Message Queue is an enterprise messaging system that provid reliable, asynchronous messaging based on the Java(TM) Message Service						
W OWILA microsystems	🗹 Install mu	ltilingual package	(s) for all selected component	nts		
	& Back	Next »		Cancel Help		

- 7. In the "Specify Installation Directories" screen, do the following:
  - **a.** Enter the target installation directory for the Directory Preparation Tool.
  - **b.** Enter the target installation directory for Sun Directory Server. (This directory will be referred to as <dirserv\_home> in the remainder of this chapter.)

Java <sup>*</sup>	Specify Installation Directorie	stallation directory for each compon	ent product.
Java™ Enterprise System	Directory Preparation Tool: Directory Server:	"tware/Apps/sun/comms/dssetup /u01/software/Apps/sun	Browse Browse
Sum.			
			Cancel Help

**8.** In the "Verify System Requirements" screen, wait until the status of all items reads "OK," then click **Next**. If any of the items fail the verification, you must remedy the problem and restart the installation.

<u></u>	Verify System Requirements	
Java™ Java™ Enterprise System	Available disk space Installed memory Installed Swap space Operating system patches Operating system resources System Ready for Installation.	ок ок ок ок
Sun.		
		Cancel Help

9. In the "Choose a Configuration Type" screen, select Configure Now and click Next.

ي ا	Choose a Configuration Type
Java	Configure Now (Enables you to configure components as part of installation.)
Java <sup>M</sup> Enterprise System	<ul> <li>Configure Later (Installs components, but does not configure them. You must configure components after completing installation).</li> </ul>
	& Back Next > Cancel Help

**10.** In the "Specify Common Server Settings" screen, enter the required information, then click **Next**.

### Note

The host name and IP address of the machine running Directory Server must have a valid DNS entry on your network.

Sil) Java	The following settings will needed. The values can	l be the default values for all installe be overridden when you configure th	d component products as ne products.
Java™	Host Name:	rho10wl	
System	DNS Domain Name:	vm.fatwire.com	
	Host IP Address:	10.120.19.45	
11	Administrator User ID:	admin	
55	Administrator Password:	*****	At least 8 characters long
55	Retype Password:	****	
59	System User:	root	
	System Group:	root	
Sun.	The values you enter abo that include these default	ive will appear as default values on t values will be marked with this not	the pages that follow. Fields e: *Shared default value
	& Back Next >		Cancel Help

11. In the "Create Directory Instance" screen, select Yes and click Next.

Java <sup>-</sup>	Directory Server: Create Directory Instance
Java™ Enterprise System	Directory Server Console requires Directory Server, but does not require a directory instance. Although not a requirement, you can create a directory instance now during installation.
Sume server	Create a directory instance (in addition to installing Directory Server)?

- **12.** In the "Specify Instance Creation Information" screen, do the following:
  - **a.** Specify the directory in which the new Directory Server instance will reside. (This directory will be referred to as <instance\_dir> in the remainder of this chapter.)
  - b. Specify the values for the System User and System Group fields.
  - c. Specify a Directory Manager password.
  - **d.** Specify the value for the **Suffix** field. (This value will be the **DN** value used to connect to this Directory Server instance; you will need it in step 4 on page 115.)
  - e. Click Next.

<u>«</u>	Directory Server: Specify Instance	Creation Information
Java™ Enterprise System	Directory Server: Specify Instance Instance Directory: Directory Instance Port: Directory Instance SSL Port: Directory Manager DN: System User: System Group: Directory Manager Password: Retype Password: Suffix:	Creation Information         /u01/software/Apps/sun/dsins1         389         636         cn=Directory Manager         root         root         ********         At least 8 character         ********         dc=vm, dc=fatwire, dc=com
<i></i> ♦ <i>Sun</i> .		
	& Back Next >	Cancel Help

**13.** In the "Ready to Install" screen, click **Install** and wait for the installation to complete.

Java"	Ready to Install Product: Java Enterprise System 5 Uninstall Location: /var/sadm/prod/sun-entsys5 Space Required: 209.44 MB
Enterprise System	Sun Java(TM) System Directory Preparation Tool Sun Java(TM) System Directory Server Enterprise Edition 6.0 Sun Java(TM) System Directory Server Enterprise Edition 6 Command-Line Utilities Java Enterprise System Directory Server 6 Core Server Java Enterprise System Directory Proxy Server 6 Core Server
	& Back         Install >         Cancel         Help

**14.** In the "Installation Complete" screen, click **Close**.

(Jul) Java	Installation Complete
Java™ Enterprise System	Click the following buttons to view installation and configuration summaries or the installation log. The installer stores the summary and log files in this location: /var/opt/sun/install/logs/
Sum. Neuropenen	View Summary         View Install Log           Your next step is to perform the postinstallation configuration and verification tasks documented in the "Postinstallation" chapter of the Sun Java(TM) Enterprise System Installation Guide at http://docs.sun.com/doc/819-4891.           Automatically display the Sun Java(TM) Enterprise System Installation Guide after the installer closes (requires an internet connection)
	Close Help

**15.** Continue to the next section, "Post-Installation Steps," to complete the installation.

# **Post-Installation Steps**

Complete your Directory Server installation by performing the steps in this section. You must perform these steps **before** you run the Content Server LDAP integration program.

1. Start your new Directory Server instance:

```
/opt/sun/ds6/bin/dsadm start <instance dir>
```

2. Create an LDIF file named csldap.ldif with the following contents:

```
dn: dc=vm,dc=fatwire,dc=com
objectClass: dcObject
objectClass: organization
dc: vm
description: Directory Server ldif file
o: Fatwire Software
dn: ou=People,dc=vm,dc=fatwire,dc=com
objectClass: organizationalUnit
objectClass: top
ou: People
dn: ou=Groups,dc=vm,dc=fatwire,dc=com
objectClass: organizationalUnit
objectClass: top
ou: Groups
```

3. Change to the <dirserv\_home>/ds6/bin directory.

4. Import the LDIF file you created in step 2 on page 114 using the following command:

./dsconf import <ldif\_file> <dn>
where:

- <ldif\_file> is the full path to the csldap.ldif file you created in step 2 on page 114, including the filename, and

- <dn> is the value you entered in the **Suffix** field in step 12 on page 113.

For example:

./dsconf import /u01/csldap.ldif dc=vm,dc=fatwire,dc=com

When you run the command, accept the certificate by answering **Yes** at the first prompt. At the second prompt, enter the Directory Manager password (you created this password in step 12 on page 113.)

# **Completing and Verifying the LDAP Configuration**

This section shows you how to complete and verify your LDAP configuration using the Directory Service Control Center (used to manage Sun Directory Server.)

1. Start the Sun Java Web Console:

/opt/sun/webconsole/bin/smcwebserver start

- 2. Initialize the Directory Service Control Center:
  - a. Change to the <dirserv\_home>/dscc6/bin directory.
  - **b.** Execute the following command: ./dsccsetup initialize
- **3.** Log in to the Sun Java Web Console as the system user you used to install Sun Directory Server, via the following URL:

https://<server>:6789/

			الله Java <sup>®</sup>
Sum.	Java <sup>™</sup> We Server Name: User Name: Password:	b Console rho10wl.vm.fatwire.com root ******* Log In	

(

4. In the "Services" section, click Directory Service Control Center (DSCC).

APPLICATIONS VERSION User: root Server: rho10wl.vm.fatwire.com Java <sup>™</sup> Web Console	LOG OUT HELP Java Sun <sup>**</sup> Microsystems, Inc.
Start Each Application in a New Window	
Systems	Desktop Applications
No applications available	No applications available
Storage	Other
No applications available	No applications available
Services Directory Service Control Center (DSCC)	

5. In the "Directory Service Manager Authentication" screen, log in as the admin user, using the Directory Manager password. (You created this password in step 12 on page 113.)

U Ja	APPLICATIONS VERSION ser: root Server: rho10wl.vm.fat ava™ System Directo	wire.com ry Service Control Center	LOG OUT HELP Java Sun <sup>**</sup> Microsystems, Inc.
D Tr	<b>Firectory Service Manag</b> o manage directory servers and	er Authentication directory proxy servers, enter the Directory :	Service Manager user name and password.
	Directory Service Manager: Password:	admin	

6. If you see a pop-up error message informing you that the DSCC registry is not running, click **Start DSCC Registry**.



When the DSCC registry has started successfully, a confirmation message appears. Click **Close** to close the pop-up window. 7. In the console, click the **Directory Servers** tab.

APPLICATIONS VERSION	REFRESH LOG OUT HELP
Jser: root   Server: rho10wl.vm.fatwire.com	4
ava <sup>™</sup> System Directory Service Control Center	) lava
	Sun <sup>™</sup> Microsystems, In
Common Task Directory Servers Proxy Servers Server Gro	ups Settings
Common Tasks	
Directory Server Administration	Directory Entry Management
Manage Registered Directory Servers	Create New Entry
View Replication Topologies	Search Directory Data
View Suffix Replication Status	Browse Directory Data
View Directory Server Logs	
	Deployment
Proxy Server Administration	Create New Directory Server
Manage Registered Proxy Servers	Copy Configuration Settings from One Directory Server to Other Servers
View Proxy Server Logs	Create New Proxy Server
	Copy Configuration Settings from One Proxy Server to Other Servers
Documentation	Create New Suffix or Replication Topology
Browse Directory Service Control Center Online Help	Copy Configuration Settings from One Suffix to Other Suffixes
Browse Directory Server Enterprise Edition Documentation on docs.sun.com	

### 8. In the "More Server Actions" drop-down list, select Register Existing Server.

APPLICATIONS VE	RSION				REFRESH LOG OUT HELP		
User: root Server: rho	10wl.vm.fatwire.com				k		
Java™ System	Java™ System Directory Service Control Center 😂 Java®						
					Sun <sup>™</sup> Microsystems, Inc.		
Common Tasks	Directory Servers	Proxy Servers	Server Groups	Settings	Sun" Microsystems, Inc.		

#### **Directory Servers**

To manage a server, click a server name. If a server does not appear in the list below, select Register Existing Server from the drop-down menu. >> More on this table

Directory S	ervers (0)				
New Server.	Start Stop	More Server Actions	Filter: All Items	~	
Server	Secure Port	More Server Actions Copy Server Configuration	Server Group	Description	Instance Path
No registered	Directory Servers	Restart			
		Backup Restore			
		Register Existing Server Unregister Existing Server			
		Delete			

**9.** In the pop-up window that appears, enter the full path to the directory holding the target Directory Server instance (<instance\_dir>) and click **Next**.



**10.** In the "Review Server Certificate" screen, select the **Accept the Certificate** check box and click **Next**.



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**11.** In the "Provide Authentication Information" screen, enter the Directory Manager password into the **Password** field and click **Next**.

Java™ System Directory Service Control Center						
Register Existing Directory Server						
Steps Help	Step 2:Provide Authe	ntication Information				
1. Enter Host and Server Information	To enable the Directory Ser must provide an Administra server, and the password fo	vice Control Center to modify the server configuration, you tive User DN with the appropriate permissions on the or the User DN.				
1.1 Review Server Certificate		* Indicates required field				
<ul> <li>2. Provide Authentication Information</li> <li>3. Summary</li> </ul>	Host: Instance Path: Server LDAP Port: Server LDAP Secure Port: * Administration DN: * Password:	rho10wl.vm.fatwire.com /u01/software/Apps/sun/dsins1 389 636 cn=Directory Manager				
	Previous Next	Cancel				

12. In the "Summary" screen, click Finish and wait for the instance to restart.



When the instance has restarted successfully, a confirmation message appears. Click **Close** to close the pop-up window. **13.** In the list of directory servers, click the Directory Server instance you just registered.

APPLICATIONS VERSION	REFRESH LOG OUT HELP
User: root Server: rho10wl.vm.fatwire.com	k
Java™ System Directory Service Control Center	Java"
	Sun™ Microsystems, Inc.
Common Tasks Directory Servers Proxy Servers Server Groups Settings	
Servers Suffixes Replication Agreements	

#### **Directory Servers**

To manage a server, click a server name. If a server does not appear in the list below, select Register Existing Server from the drop-down menu. >> More on this table

Director	y Servers (1)					
New Ser	ver Start StopM	lore Server Actions	s 💌   Filter:	All Items	✓	[
1 i i i i i i i i i i i i i i i i i i i	Server 🔺	Secure Port 🛆	Operational Status 🔝	Server Group 🗠	Description 🛆	Instance Path 🗠
	rho10wl.vm.fatwire.com:389	636	Started			/u01/software/Apps/sun/dsins1
□•₽						

14. In the instance summary screen, click the Entry Management tab.

APPLICATIO	ONS VERSION	/m fatwire com				REFRESH LO	IG OUT HELP
Java <sup>™</sup> System Directory Service Control Center							
					_	Si	un™ Microsystems, Inc.
Directory Ser	rvers > rho10w	l.vm.fatwire.com:38	39				
Server Op	peration Su	ıffixes Entry I	Management	Schema	Security	/ Server (	Configuration
Main	Error Logs	Access Logs	Audit Logs	Resource Us	age	Suffix Usage	
Main	Error Logs vm.fatwire.c	Access Logs	Audit Logs	Resource Us	age :	Suffix Usage	

General

Name:	rho10wl.vm.fatwire.com:389
Description:	Edit
Instance Path:	/var/opt/sun/dsins1/
Location:	Edit
	Servers with the same Location are grouped together when viewing replication topology

Run Modes and Status

 
 Operational Status
 Started

 Read/Write Mode:
 Read/Write >>More on read/Write mode

 Referral Mode:
 Disabled
 **15.** Examine the displayed LDAP directory data to make sure it is valid.

APPLICATIONS VERSION	APPLICATIONS VERSION REFRESH LOG OUT HELP						
User: root_Server: rho10w1.vm.fatwire.com							
Java <sup>™</sup> System Directory Service Control Center							
					Sun <sup>™</sup> Microsystems, Inc.		
Directory Servers > rho10wl.vm.fatwire.com:38	)						
Server Operation Suffixes Entry M	Server Operation Suffixes Entry Management Schema Security Server Configuration						
Browse Search Access Control	Passwor	d Policies					

#### rho10wl.vm.fatwire.com:389 - Browse Data

You can browse LDAP data on this tab. To browse down the Directory Information Tree (DIT), click +. To browse up the DIT, use the View DN drop-down list. To hide the upper levels of the DIT, select a DN and set it as the View DN by clicking Use Selected Entry. To filter entries, use the View Options settings.

View DN: dc=vm,dc=fatwire,dc=com (3689 Entries) 💌	Vse Selected Entry
Image: Container Default TemplateRole         Image: Container Default Reservice         Image: Container Default Reservice	Selected Entry         Edit Entry       Delete Entry       New Entry       Search         dn:       dc=wm,dc=fatwire,dc=com         ACIs:       32         Object Class:       sunISManagedOrganization, sunNameSpace, top, sunManagedOrganization organization, domain         Children:       30         View Options         Filter:       Full Name (cn)         Enter a string to be matched or an LDAP filter.         Display:       2 Levels         Show Configuration Suffixes         Refresh View

# **Modifying User Passwords**

This section shows you how to modify user passwords in Sun Directory Server.

**1.** Start the Sun Java Web Console:

/opt/sun/webconsole/bin/smcwebserver start

**2.** Log in to the Sun Java Web Console as the system user you used to install Sun Directory Server, via the following URL:

https://<server>:6789/

Java"	
b Console	
<b>Java<sup>™</sup> We</b> Server Name: User Name: Password:	
	EUN.
	Sec.

3. In the "Services" section, click Directory Service Control Center (DSCC).

APPLICATIONS VERSION	LOG OUT HELP
User: root Server: rho10wl.vm.fatwire.com	k
Java <sup>™</sup> Web Console	
	Java
	Sun" Microsystems, Inc.
🔲 Start Each Application in a New Window	
Systems	Desktop Applications
No applications available	No applications available
Storage	Other
No applications available	No applications available
Services	
Directory Rewise Control Contex (DBCC)	
Directory Service Control Center (DSCC)	
Systems No applications available Storage No applications available Services Directory Service Control Center (DSCC)	Desktop Applications No applications available Other No applications available

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4. In the "Directory Service Manager Authentication" screen, log in as the admin user, using the Directory Manager password. (You created this password in step 12 on page 113.)



**5.** If you see a pop-up error message informing you that the DSCC Registry is not running, click **Start DSCC Registry**.



When the DSCC Registry has started successfully, a confirmation message appears. Click **Close** to close the pop-up window. 6. In the console, click the **Directory Servers** tab.

APPLICATIONS VERSION		REFRESH LOGOUT HELP
Jser: root Server: rho10wl.vm.fatwire.com	<b>. *</b>	<u> </u>
ava system Directory service control cent	er	Java
		Sun™ Microsystems, Ir
Common Tasks Directory Servers Proxy Servers S	erver Groups	Settings
Common Tasks		
Directory Server Administration		Directory Entry Management
Manage Registered Directory Servers	i	Create New Entry
View Replication Topologies	) (i	Search Directory Data
View Suffix Replication Status	ì	Browse Directory Data
View Directory Server Logs		
		Deployment
Proxy Server Administration		Create New Directory Server
Manage Registered Proxy Servers	i	Copy Configuration Settings from One Directory Server to Other Servers
View Proxy Server Logs		Create New Proxy Server
P		Copy Configuration Settings from One Proxy Server to Other Servers
Documentation		Create New Suffix or Replication Topology
Browse Directory Service Control Center Online Help		Copy Configuration Settings from One Suffix to Other Suffixes
Browse Directory Server Enterprise Edition Documentation on docs.sun.c	om	

7. In the list of directory servers, click the desired Directory Server instance.

APPLICATIONS VERSION				REFRESH LOG OUT HELP	
User: root   Server: rho10wl.vm.fatwire.com	k				
Java™ System Directory Service Control Center					
				Sun <sup>™</sup> Microsystems, Inc.	
Common Tasks Directory Servers	Proxy Servers	Server Groups	Settings		

#### **Directory Servers**

To manage a server, click a server name. If a server does not appear in the list below, select Register Existing Server from the drop-down menu. >> More on this table

Directory Servers (1)								
New Server Start Stop More Server Actions 💌   Filter: All Items 🔍   🕩								
🖉 🗄 🤟 Server	Secure Port 🛆	Operational Status 🔝	Server Group 🗠	Description 🗠	Instance Path 🗠			
rho10wl.vm.fatwire.com:389	636	Started			/u01/software/Apps/sun/dsins1			

8. In the instance summary screen, click the Entry Management tab.



#### rho10wl.vm.fatwire.com:389

Start Stop	Restart More Server Actions
General	
Name:	rho10wl.vm.fatwire.com:389
Description:	Edit
Instance Path:	/var/opt/sun/dsins1/
Location:	Edit Servers with the same Location are grouped together when viewing replication topology

#### Run Modes and Status

Operational Status:	Started
Read/Write Mode:	Read/Write >>More on read/write mode
Referral Mode:	Disabled

9. In the list of directory entries, navigate to and double-click the **ou=People** node.

APPLICATIONS VERSION									REFRESH LOG OUT HELP	
User: root_Server: rho10wl.vm.fatwire.com									k	
Java™ System Directory Service Control Center									java"	
	Sun* Microsystems, Inc.									
	Directory Servers > rho10wl.vm.fatwire.com:389									
	Server Oper	ation	Suffixes	Entry Man	agement	Schema	Security	Server Configuration		
	Browse	Sear	ch Acce	ss Control	Passwor	d Policies				

#### rho10wl.vm.fatwire.com:389 - Browse Data

You can browse LDAP data on this tab. To browse down the Directory Information Tree (DIT), click +. To browse up the DIT, use the View DN drop-down list. To hide the upper levels of the DIT, select a DN and set it as the View DN by clicking Use Selected Entry. To filter entries, use the View Options settings.

View DN: dc=vm,dc=fatwire,dc=com (3689 Entries)	•	Use Selected Entry
cn=Deny Write Access     (+) cn=SunMobileAppABService     (+) cn=SunMobileAppCalendarService     (+) cn=SunPortalportal1DesktopService     (+) cn=SunPortalportal1DesktopService     (+) cn=SunSOAdapterService     (-) cn=Top-level Admin Role     (-n=Top-level Help Desk Admin Role     (-n=Top-level Help Desk Admin Role     (-n=Top-level Policy Admin Role     (-n=Top-level Policy Admin Role     (-n=IPlanetAMAuthConfiguration     (A) cn=IPlanetAM	~	Selected Entry         Edit Entry       Delete Entry       New Entry       Search         dn:       ou=People,dc=vm,dc=fatwire,dc=com         ACIs:       0         Object Class: top, organizationalunit, iplanet-am-managed-people-container         Children:       3         View Options
<pre>[+] cn=iPlanetAMOSerService [_] cn=ouEPeople_dcl=vm_dcl=fatwire_dcl=com [+] cn=srapOatewayAccessService [+] cn=srapNetFileService [+] cn=srapProx/letService [+] cn=srapProx/letService [+] o=CommunitySample [+] o=DeveloperSample</pre>		Filter:       Full Name (cn)         Enter a string to be matched or an LDAP filter.         Display:       2 Levels         Image: Show Leaf Entries (lowest-level entries)         Image: Show Configuration Suffixes
(+) 0=EnterpriseSample o=Intermet (+) ou=ClientData (+) ou=CsAME Users ou=Groups (+) ou=People (+) ou=People (+) ou=services (+) ou=services [+] sunPortalAdminPortalDomainID=defaultDomain		Refresh View

**10.** Under the **ou=People** node, select the user whose password you want to modify. then click **Edit Entry** in the "Selected Entry" area.

APPLICATIONS VERSION					REFRESH LOG OUT HELP			
User: root Server: rho10wl.vm.fatwire	<u>k</u> .							
Java <sup>™</sup> System Directory Service Control Center								
	Sun <sup>®</sup> Microsystems, Inc.							
Directory Servers > rho10wl.vm.fatwire.com:389								
Server Operation Suffixes	Entry Management	Schema	Security	Server Configuration				
Browse Search Acce	ss Control Passwor	d Policies						

#### rho10wl.vm.fatwire.com:389 - Browse Data

You can browse LDAP data on this tab. To browse down the Directory Information Tree (DIT), click +. To browse up the DIT, use the View DN drop-down list. To hide the upper levels of the DIT, select a DN and set it as the View DN by clicking Use Selected Entry. To filter entries, use the View Options settings.

View DN: ou=People	Use Selected Entry
[+] ou=People	Selected Entry
📋 uid=anonymous	Edit Entry Delete Entry New Entry Search
🗋 uid=authlessanonymous	dn: uid=amAdmin.ou=People.dc=vm.dc=fatwire.dc=com
	ACIs: 0
	Object Class: iplanet-am-user-service, iplanet-am-managed-person, top, inetadmin, organizationalperson, person, sunamauthaccountlockout, inetuser, sunssoadapterperson, iplanet-am-session-service, sunportalproxyletservice, iplanetpreferences, sunportalpdesktopperson, sunportalproxyletservice, inetorgerson, sunportalgatewayaccessservice, sunportalnetfileservice
	Children: 0
	View Options
	Filter: Full Name (cn)
	Display: 2 Levels 👻
	Show Leaf Entries (lowest-level entries)
	Show Configuration Suffixes
	Refresh View
~	

**11.** Enter the new password into the **Password** and **Confirm Password** fields, then click **OK**.

APPLICATIONS VI User: root Server: rho Java™ System	ERSION 010wl.vm.fatwire Directory	.com Service Control Center		_	REFRESH LOC	DUT HELP
Directory Servers > r	ho10wl.vm.fatwi	re.com:389 Data Browse 😕 amAdmii	n Properties			
Entry Overview	Text View					
rho10wl.vm.fatv × Required Attributes × Allowed Attributes	<b>vire.com:38</b> s ≉ Other	9 - amAdmin - Entry Overvi	ew		0	K Cancel
					* Indicat	es required field
Required Attrib	utes					
* Full Name (cn):	amAdmin			]		
* Last Name (sn):	amAdmin			]		
✿ Back to top						
Allowed Attribu	tes					
First Name (givenn	name):					
User ID (uid):			amAdmin			
Password (userPa	assword):		*****			
Confirm Password	1:		*****			
E-mail (mail):						
Telephone Numbe	r (telephoneNun	nber):				
Fax Number (facsi	mileTelephoneM	lumber):				
Locality (I):						
Organization (o):						
Organizational Uni	it (ou):					
aci:						
adminRole:						
audio:						

12. Repeat steps 10 an 11 for each additional user whose password you want to modify.

Modifying User Passwords

Modifying User Passwords

# Chapter 11 Setting Up OpenLDAP 2.3.x

This chapter explains how to set up OpenLDAP for use with Content Server.

### Note

You must set OpenLDAP before you run the CS LDAP integrator.

It contains the following sections:

- OpenLDAP Commands
- Installing OpenLDAP
- Configuring OpenLDAP
- Adding Content Server Schema to OpenLDAP
- Modifying User Passwords

# **OpenLDAP Commands**

This section contains the most commonly used OpenLDAP commands. Use it as a reference when configuring OpenLDAP for use with Content Server.

### 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 Content Server), use the following command:

```
/usr/local/libexec/slapd -h 'ldap:///' -d 0x5001
```

## 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 136.

2. When prompted for a password, enter the Root DN user password you specified in step d on page 137.

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=fatwire,dc=com
```

```
# search result
search: 2
result: 0 Success
# numResponses: 2
# numEntries: 1
```

## 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 136.
- <root\_dn\_password> is the Root DN user password you specified in step d on page 137.
- <LDIF\_file\_name> is the name of the LDIF file you are adding.

# 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:
  - 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 openldapstable-20070110.tar



3. Change to the directory containing the OpenLDAP source. For example:

cd openldap-2.3.32

```
Session Edit View Bookmarks Settings Help

egandt@linux-gandt:~/shared/openldap> tar -xzf openldap-stable-20070110.tgz
egandt@linux-gandt:~/shared/openldap> ls
openldap-2.3.32 openldap-stable-20070110.tgz
egandt@linux-gandt:~/shared/openldap/openldap-2.3.32> ls
aclocal.m4 CHANGES configure.in doc libraries README
ANNOUNCEMENT clients contrib include LICENSE servers
build configure COPYRIGHT INSTALL Makefile.in tests
egandt@linux-gandt:~/shared/openldap/openldap-2.3.32> ./configure []

egandt@linux-gandt:~/shared/openldap/openldap-2.3.32> ./configure []
egandt@linux-gandt[]
equation[]
equatio
```

4. Configure the OpenLDAP source as follows:

```
./configure --enable-crypt --with-tls
```

```
Session Edit View Bookmarks Settings Help
config.status: creating servers/slapd/back-sql/Makefile
                                                                                                           config.status: creating servers/slapd/shell-backends/Makefile
config.status: creating servers/slapd/slapi/Makefile
config.status: creating servers/slapd/overlays/Makefile
config.status: creating servers/slurpd/Makefile
config.status: creating tests/Makefile
config.status: creating tests/run
config.status: creating tests/progs/Makefile
config.status: creating include/portable.h
config.status: creating include/ldap_features.h
config.status: creating include/lber_types.h
config.status: executing depfiles commands
config.status: executing default commands
Making servers/slapd/backends.c
     Add config ..
Add ldif ...
     Add bdb ...
     Add hdb
     Add monitor
                     . . .
Add relay ...
Making servers/slapd/overlays/statover.c
Add syncprov ...
Please run "make depend" to build dependencies
egandt@linux-gandt:~/shared/openldap/openldap-2.3.32> make dep[]
                                                                                                           •
🛃 💻 Shell
```

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.

# **Configuring OpenLDAP**

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.fatwire.com, your Base DN would be fatwire.com, and your BASE line would look as follows:

BASE dc=fatwire,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.

**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.

**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.

**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:

- 1. Generate an encrypted password (hash) using the **slappasswd** command. The command generates a valid encrypted password (hash) and prints it to the terminal.
- 2. 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
```

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```
MAY ( businessCategory $ seeAlso $ owner $ ou $ o
   $ description $ uniqueMember) )
MUST ( uniqueMember $ cn )
```

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 STRUCTURAL
   MAY ( 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.

## Adding Content Server Schema to OpenLDAP

This section shows you how to add Content Server schema to your OpenLDAP server.

#### To configure OpenLDAP for Content Server

1. Create an LDIF file named pre\_cs\_openldap.ldif with the following contents:

```
version: 1
dn: dc=<domain>,dc=<extension>
objectClass: dcObject
objectClass: organization
dc: fatwire
description: OpenLDAP pre cs setup
o: Fatwire 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 136.
```

The file will create a new organization (fatwire) 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 136.
- <root\_dn\_password> is the Root DN user password you specified in step d on page 137.

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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 136.

An example response from the ldapsearch command looks as follows:

```
# extended LDIF
#
# LDAPv3
# base <ou=Groups,dc=fatwire,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 Content Server LDAP integrator. For instructions, see the *LDAP Integration Guide*.

# **Modifying User Passwords**

When you ran the Content Server LDAP integrator, all Content Server users (except fwadmin, ContentServer, and DefaultReader) were assigned the password which you entered in the "Content Server 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 CS system, or your Content Server installation will not function properly. This is because the CS 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 Content Server users:

User	Password
DefaultReader	SomeReader
ContentServer	The password you supplied during CS installation
fwadmin	The password you supplied during CS installation
All other users on your CS system	The password you supplied during CS LDAP integration

This section covers the following methods for changing passwords in OpenLDAP:

- Modifying User Passwords Using an LDAP Browser
- Modifying User Passwords Using the Idapmodify Command

## 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.

🗙 Conne	ect			
Session L	ist Quick Conn	ect		
Connecti	on Options			
– Host Info	)			
Host			Port:	Version: 3 💌
Base DN:				-
	Fetch DNs	SSL 🔤		Anonymous bind
– User Info				
User DN	cn=Directory Man			🗌 append base DN
Password				
			Co	onnect 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 on page 136.
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 137.

5. Click Connect.

6. In the left-hand tree, expand the **ou=People** node.



- 7. Double-click the user whose password you want to change and press Ctrl-E.
- **8.** The plaintext password written by the CS LDAP integrator appears in the **userPassword** field. Click **Set**.

🗙 Edit - [cn=ldapı	user, ou=People, dc=fatwire,dc=comJ 🍭				
<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			500.

9. In the pop-up window, enter the user's password and click Set.



The password appears in its encrypted form.

**10.** Click **Apply** to save the new password.

🗙 Edit - [cn=ldapi	user, ou=People, dc=fatwire,dc=com]		
<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 for each user whose password you want to change. When you are finished, test your integration by logging in to Content Server.

## 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}ydUT5RCpBAU80P0PW8gaHnsmYmLlmUL8

#### 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. 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 136.
- <root\_dn\_password> is the Root DN user password you specified in step d on page 137.

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 136.

- b. changetype:modify
- c. replace:userPassword
- d. userpassword:<password\_hash>

where <password\_hash> is the hash generated by the **sldappasswd** command in step 1 of this procedure.

- e. Press Ctrl+D.
- f. Repeat steps a-e for each user whose password you want to change. When you are finished, press Ctrl+C to terminate the ldapmodify command.
## Chapter 12

# Setting Up the WebLogic 9.*x* Embedded LDAP Server

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

### Note

You must set up WebLogic LDAP before you run the CS LDAP integrator.

This chapter contains the following sections:

- Enabling the WebLogic Embedded LDAP Server
- Modifying User Passwords

# 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:
  - 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. Reenter the password in the **Confirm Credential** field for verification.
  - d. Click Save.

#### **WEBLOGIC SERVER** ADMINISTRATION CONSOLE

Change Center	Welcome, weblogic		Connected to: portalDomain	🏠 Home	Log Out	Preferences	Help	AskBEA
View changes and restarts	Home > portalDomain							
Click the Lock & Edit button to modify, add or delete items in	Settings for portalDomain							
this domain.	Configuration Monitoring Control	Security Web Service S	ecurity Notes					
Lock & Edit Release Configuration	General Filter Unlock User I		Policies					
Domain Structure		, change contor to moany	ale socarigo on ano pagor					
portalDomain —Environment —Deployments	This page allows you to configure	e the embedded LDAP serv	er for this WebLogic Server domain.					
ervices ─Security Realms erriteroperability	🚑 Credential:		The credential (usually a password) Info	used to conne	ect to the er	nbedded LDAP :	server. M	ore
	🚑 Confirm Credential:	katalalalalalalalalalalalalalala	Enter the credential again. More Info	D				
Configure the embedded LDAP	🚑 Backup Hour:	23	The hour at which the embedded LD	)AP server sho	uld be back	ed up. More Inf	ö	
<ul> <li>Configure Authentication and Identity Assertion providers</li> </ul>	🚑 Backup Minute:	5	The minute at which the embedded	LDAP server s	hould be ba	cked up. More I	info	
System Status 💿	🚑 Backup Copies:	7	The maximum number of backup co server. More Info	pies that shou	ld be made	for the embedo	ied LDAP	
Health of Running Servers	🖉 🗹 Cache Enabled		Specifies whether a cache is used w	/ith the embec	lded LDAP s	erver. More Info	o	
Critical (0)	🍇 Cache Size:	32	The size of the cache (in kilobytes) t Info	that is used wi	th the embe	edded LDAP ser	ver. More	
Overloaded (0) Warn (0)	4 Cache TTL:	60	The time-to-live of the cache (in sec More Info	:onds) that is ı	used with th	e embedded LC	AP serve	r.
OK (1)	🔏 🗌 Refresh Replica At Startu	φ	Specifies whether a Managed Serve is useful if you have made a large a active, and you want to download th Server push each change to the Mar	r should refre mount of chan he entire replic haged Server.	sh all replica ges when th a instead of ) <b>More Info.</b>	ated data at boo ne Managed Sei Thaving the Adr	ot time. ( rver was ministratio	This not on
	4 Master First		Specifies whether a Managed Serve (contained in the Administration Ser LDAP server (contained in the Mana	r should alway ver), instead o ged Server). N	ys connect t of connectine <b>Iore Info</b>	o the master LE g to the local re	)AP serve eplicated	er.

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

<b>WEBLOGIC SERVE</b>					
Change Center	Welcome, weblogic	Connected to: portalDomain	🟠 Home 🛛 Log Out	Preferences He	lp AskBEA
View changes and restarts	Home > portalDomain > Summary of Secur	ty Realms > myrealm > <b>Providers</b>			
Pending changes exist. They must be activated to take effect.	Settings for myrealm				
Activate Changes	Configuration Users and Groups	Roles and Policies Credential Mappings Providers Migration			
Undo All Changes	Authentication Authorization Adjudication Role Mapping Auditing Credential Mapping Certification Path Keystores				
Domain Structure	An Authentication provider allow	s WebLogic Server to establish trust by validating a user. You must ha	ave one Authentication pr	ovider in a security r	ealm,
portalDomain B-Environment Deployments B-Services Security Realms B-Interoperability B-Diagnostics	and you can configure multiple Authentication providers in a security realm. Different types of Authentication providers are designed to access different data stores, such as LDAP servers or DBMS. You can also configure a Realm Adapter Authentication provider that allows you to work with users and groups from previous releases of WebLogic Server.				
How do I 💽	New Delete Reorder		Showing	1-5of5 Previous	Next
Configure Authentication and	Name	Description		Ver	sion
Manage security providers	SQLAuthenticator	Provider that performs DBMS authentication		1.0	
Set the JAAS control flag	WSRPIdentityAsserter	WSRP 8.1 Compatibility, Identity Asserter Provider		1.0	
Re-order Authentication providers	DefaultIdentityAsserter	WebLogic Identity Assertion provider		1.0	
Custom Status	SAMLIdentityAsserter	WebLogic SAML Identity Assertion Provider. Supports Security Asser	rtion Markup Language v1	L.1. 2.0	
System Status	SAMLAuthenticator	WebLogic SAML Authentication Provider.		1.0	
Health of Running Servers Failed (0)	New Delete Reorder		Showing	1-5of5 Previous	Next
Critical (0)					

- 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.

# **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.

nge Center We	elcome, weblogic	Connected to: PortalDomain	🏠 Home 🛛 Log Out	Preferences He	elp AskB
w changes and restarts	Home > Summary of Security Realms > myrealm > U	sers and Groups > Summary of Security Realms > myrealm > Users an	d Groups		
k the Lock & Edit button to dify, add or delete items in	Settings for myrealm				
domain.	Users Groups	and Policies Credential Mappings Providers Migration			
Release Configuration	This page displays information about eac	h user that has been configured in this security realm.			
alDomain nvironment leployments	Customize this table				
Services Showing 1 - 10 of 15 Previous   Next					
Services Security Realms	New Delete		Showing 1	-10 of 15 Previou	s   Next
Services Security Realms nteroperability Diagnostics	New Dekte	Description	Showing 1 Provider	-10 of 15 Previou	s   Next
iervices iecurity Realms iteroperability liagnostics do I	New Delete Name   Arthur  Connie	Description	Showing 1 Provider LDAPProvider LDAPProvider	- 10 of 15 Previou	s   Next
ervices ecurity Realms iteroperability iagnostics do I the second	New Delete       Name        Arthur       Connie       Conrad	Description	Showing 1 Provider LDAPProvider LDAPProvider LDAPProvider LDAPProvider	- 10 of 15 Previou	s   Next
ervices ecurity Realms iteroperability iagnostics to I Tage users and groups ate users	New     Delete       □     Name        □     Arthur       □     Connie       □     Conrad       □     ContentServer	Description	Showing 1       Provider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider	- 10 of 15 Previou	s   Next
iervices iecurity Realms iteroperability liagnostics do I  anage users and groups iate users dify users	New     Delete       □     Name &       □     Arthur       □     Connie       □     Conrad       □     ContentServer       □     DefaultReader	Description       Image: Constraint of the second seco	Showing 1       Provider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider	- 10 of 15 Previou	s   Next
Security Realms nteroperability Diagnostics do I mage users and groups eate users xdify users lete users	New     Delete       □     Name        □     Arthur       □     Connie       □     Conrad       □     ContentServer       □     DefaultReader       □     Desiree	Description       Image: I	Showing 1       Provider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider	- 10 of 15 Previou	s   Next
Sevurices Security Realms Interoperability Diagnostics do I Interperability anage users and groups sate users dify users lete users em Status	New     Delete       □     Name        □     Arthur       □     Connie       □     Conrad       □     ContentServer       □     DefaultReader       □     Desiree       □     firstsite	Description       Image: I	Showing 1       Provider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider       LDAPProvider	- 10 of 15 Previou	s   Next
iervices iecurity Realms hteroperability iviagnostics do I nage users and groups eate users dify users lete users ers Status in Status	New     Delete       □     Name        □     Arthur       □     Connie       □     Conrad       □     ContentServer       □     DefaultReader       □     Desiree       □     firstsite       □     fwadmin	Description       Image: I	Showing 1       ProvIder       LDAPProvider	- 10 of 15 Previou	s   Next
iervices iecurity Realms iteroperability ivagnostics do I that a set is and groups eate users dify users iete users th of Running Servers	New     Delete       □     Name &       □     Arthur       □     Conrie       □     Conrad       □     ContentServer       □     DefaultReader       □     Desiree       □     firstsite       □     fwadmin       □     Mark	Description       Image: I	Showing 1       ProvIder       LDAPProvider	- 10 of 15 Previou	s   Next
ieuvices iecurity Realms iteroperability liagnostics do I  do I  the operability independent of the operability independent of the operability the of Running Servers  Failed (0)	New       Delete         □       Name 🀟         □       Arthur         □       Connie         □       Conrad         □       ContentServer         □       DefaultReader         □       Desiree         □       firstsite         □       fwadmin         □       Mark         □       Martha	Description       Image: I	Showing 1       Provider       LDAPProvider       LDAPProvider	- 10 of 15 Previou	s   Next

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

### The workspace displays the "Settings for user name" screen:

Settings for firstsite					
General Passwords Gro	ups				
Save					
Use this page to chang	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			
Save					

5. Select the **Passwords** tab and enter the new password into both fields.

Settings for firstsite		
General Passwords Groups		
Use this page to change a user	s password.	
New Password:	de d	The new password of this user. More Info
Confirm New Password:	kênînênînên kurdeye.	The confirmed new password of this user. More Info

6. Click Save.

A confirmation message appears.

lessages	
Settings updated successfully.	

Modifying User Passwords

# Chapter 13 Setting Up Oracle Directory Server 10.x

This chapter provides instructions for setting up the currently supported version of Oracle Directory Server (ODS) for use with Content Server.

#### Note

You must set up ODS before you run the CS LDAP integrator.

This chapter contains the following sections:

- Start/Stop Commands
- Installing Oracle Directory Server
- Accessing Oracle Directory Manager
- Configuring ODS Password Security for Content Server
- Modifying User Passwords
- Deleting Users
- Connecting to ODS Using an LDAP Browser

# **Start/Stop Commands**

This section lists commands for starting and stopping Oracle Directory Server.

• To start:

<oracle\_home>/opmn/bin/opmnctl startproc ias-component=OID

• To stop:

<oracle\_home>/opmn/bin/opmnctl stopproc ias-component=OID

# Installing Oracle Directory Server

This section shows you how to install Oracle Directory Server for use with Content Server.

## A. Pre-Installation Steps

Complete these steps before installing Oracle Directory Server.

- 1. Download the following packages from Oracle's website:
  - Oracle Identity Management Infrastructure
  - Oracle Identity Federation
- **2.** Create a temporary directory and decompress the installation packages to this directory using the following command:

cpio idmv < <cpio\_file>

where <cpio\_file> is the name of the package you want to decompress.

**3.** Create a new user account to run Oracle Directory Server (named oracledir in our example).

#### Note

If you have previously created a user to run Oracle applications on your system, skip this step. In such case, whenever the steps in the remainder of this chapter prompt you to provide the user name of your Oracle user, you must use your existing Oracle user.

**a.** Create an Oracle group:

groupadd oracledir

**b.** Create an Oracle user:

useradd -g oracledir -m -h <user\_home\_dir> oracledir
where <user\_home\_dir> is the Oracle user's home directory.

**c.** Set a password for the Oracle user:

passwd oracldir

- 4. If you are installing on Linux, do the following (otherwise, skip this step):
  - **a.** Add the following lines to the file /etc/sysctl.conf:

```
kernel.shmall = 2097152
kernel.shmmax = 2147483648
kernel.shmmni = 4096
kernel.msgmnb=65535
kernel.msgmni=2878
kernel.sem = 256 32000 100 142
fs.file-max=131072
net.ipv4.ip_local_port_range = 1024 65000
net.core.rmem_default=262144
net.core.wmem_default=262144
net.core.rmem_max=262144
```

- **b.** Run the following command: **sysctl** -**p**
- **c.** Add the following lines to /etc/security/limits.con:

```
oracledir soft nproc 2047
oracledir hard nproc 16384
oracledir soft nofile 1024
oracledir hard nofile 65536
```

5. Log in as the Oracle user.

## **B. Install Oracle Directory Server**

- 1. Complete the pre-installation steps listed in "A. Pre-Installation Steps," on page 152 if you have not already done so.
- 2. Change to the temporary directory into which you decompressed the Oracle Directory Server packages. Within the temporary directory, change to the Disk1 subdirectory.
- 3. Start the installer: ./runInstaller
- 4. In the "Welcome" screen, click Next.



Note: 3a. and 3b only occur if no other Oracle Software was previously installed

- **5.** If no Oracle products have been installed on this machine, do the following (otherwise, skip this step):
  - **a.** In the "Specify Inventory Directory and Credentials" screen, specify the location of the Oracle inventory directory and specify the system group of your Oracle user, then Click **Next**.

Specify Inventory directory and crede	entials
You are starting your first installation on this host. As part of this in directory for installer files. This is called the "inventory directory". A installer automatically sets up subdirectories for each product to c consume typically 150 Kilobytes per product.	nstall, you need to specify a Within the inventory directory, the ontain inventory data and will
Enter the full path of the inventory girectory.	
/home/oracledir/oralnventory	Browse
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope	sion to the above inventory directory. erations as a Superuser.
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope Specify Operating System group name:	ion to the above inventory directory. erations as a Superuser.
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope Specify Operating System group name: oracledir	ion to the above inventory directory. erations as a Superuser.
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope Specify Operating System group name: oracledir	sion to the above inventory directory. erations as a Superuser.
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope Specify Operating System group name: oracledir	sion to the above inventory directory. erations as a Superuser.
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope Specify Operating System group name: oracledir	sion to the above inventory directory. erations as a Superuser.
You can specify an Operating System group that has write permiss You can leave the field blank if you want to perform the above ope Specify Operating System group name: oracledir Help Installed Products Back	tion to the above inventory directory. erations as a Superuser.

**b.** When the following pop-up dialog appears, run the requested script as the root user, then click **Continue**.

Oracle Universal Installer	×
Certain actions need to be performed with root privileges before the install can continue. These actions are stored in a shell script named /home/oracledir/oralnventory/orainstRoot.sh.	
Please execute the /home/oracledir/oralnventory/orainstRoot.sh script now from another window, then click "Continue" to continue the install.	
Help Continue Cancel	

**6.** In the "Specify File Locations" screen, confirm the path and name of the destination directory, then click **Next**.

Oracle Universal Installer: Specify File Locations	////////=×
1	ng
Specify File Locations	
Source	
Enter the full path of the file representing the product(s) you want to install:	
Path: /u01/Downloads/Disk1/stage/products.xml	Browse
Destination Enter or select a name for the installation and the full path where you want to install the Name: oracleas1	product.
Path: /u01/software/Apps/Oracle10/dirserv	Browse )
About Qracle Unive	rsal Installer)
Help Installed Products Back Next Install	<u>C</u> ancel
ORACLE	

7. In the "Select a Product to Install" screen, select the Oracle Application Server Infrastructure radio button and click Next



8. In the "Select Installation Type" screen, select the **Identity Management and Metadata Repository** radio button and click **Next**.



**9.** In the next screen, allow the prerequisite check to complete. If any checks fail, resolve the issue before continuing. When all checks report as successful, click **Next**.

### Note

If you see a dialog warning you that port 1521 is in use by an Oracle 10.x component, click **OK**. If the dialog reports that an application other than an Oracle 10.x component is using port 1521, you must remedy the situation by following the instructions shown in the dialog before continuing.

Oracle Universal Installer: Product-specific P	rerequisite Ch	ecks 📃
The installer will now verify that the system meets all the minimu configuring the chosen product. You are required to manually ve flagged as warnings or manual checks. For details on performing see the details at the bottom.	im requirement: rify and confirm g those checks,	s for installing and 1 the items that are click on the item and
Check	Туре	Status
Checking operating system certification	Automatic	🔳 In progress 🔼
Checking security kernel parameters	Automatic	Pending
Checking recommended operating system packages	Automatic	Pending
Checking glibc installed on the system	Automatic	Pending
Validatinn ∩RACLE_RASE Incation (if set) (◀	Automatic	Pendina D
		Retry Stop
0%		
Checking operating system certification		
Help (Installed Products) Back Ne	ext (r	istall 🛛 🖉 🖉 🖉
ORACLE		

**10.** In the "Confirm Pre-Installation Requirements" screen, select the check boxes for all items in the list, then click **Next**.

	Oracle Universal Installer: Confirm	Pre-Installation Requirements
	Confirm Pre-Installation Requ	irements
	Verify that you have met all of the minimum pre-instal all of the checkboxes. For details on performing these	lation requirements listed below, and then select checks, click the Help button.
	If your computer does not meet the minimum requirer or when you run Oracle Application Server Infrastructu	nents, you will get errors later in the installation re.
	Requirement	Description
	Root Privileges	You must have access to the root user on this
		D
-(	Help Installed Products Back	Next (nstall Cancel
	ORACLE	

**11.** In the "Select Configuration Options" screen, click **Next** without making any changes.

$\overline{\mathbf{v}}$	Oracle Universal Installer: Select Configuration Options					
	Select Configuration Options					
2	Select the components that you would like to configure and automatically start at the end of the installation.					
l t	Oracle Application Server Metadata Repository is always configured. If you want to use an existing Oracle Internet Directory, then do not select it below. The installer will then prompt you to enter the location of the existing Oracle Internet Directory.					
[		Available Components:	Description 🔷			
		Oracle Application Server Metadata Repository	Configures Oracle Application Server Metadata			
>		Oracle HTTP Server	Serves static and dynamic Web content.			
>		Oracle Application Server Containers for J2EE	Runs Enterprise Java applications.			
_		Oracle Internet Directory	Configures an LDAP server for identity and se			
-		Oracle Application Server Single Sign-On	Configures a directory-enabled single sign-or			
2		Oracle Application Server Delegated Administr	Provides web-based identity and security adr			
>		Oracle Directory Integration Platform	Enables directory synchronization and user ar—			
>		Oracle Application Server Certificate Authority (	Creates and manages security certificates.			
			D			
	H	elp Installed Products Back	Next Install Cancel			
	0	RACLE				

12. In the "Specify Port Configuration Options" screen, select Automatic and click Next.



 In the "Specify Namespace in Internet Directory" screen, select the Suggested Namespace radio button and make a record of the corresponding field value. Click Next.

Oracle Unive	ersal Installer: Specify Namespace in Internet Directory
Specify Namesp	ace in Internet Directory
Specify a location, or namesp Management policies. This n	pace, in Oracle Internet Directory to contain users, groups, and identity amespace will be the default identity Management Realm.
Suggested Namespace:	dc=oraclelinux,dc=com
C Custom Namespace:	
	Example: dc=acme,dc=com
Help Installed Pr	roducts Back Next Install Cancel
ORACLE	

FatWire

**14.** In the "Specify Database Configuration Options" screen, enter the required database information, then click **Next**. Make a record of the values you enter.

### Note

If an Oracle database server resides on this machine, the installer will populate the fields in this screen automatically. However, FatWire strongly suggests that you you do not use these existing values and instead specify a new, unique SID and database storage (oradata) directory.

	Oracle Universal Installer: Specify Database Configuration Options		
Specify	Database Configuration Options		
— <b>Databas</b> A Global Da database. Specify the	e Naming tabase Name, typically of the form "name.domain", uniquely identifies an Oracle In addition, each database is referenced by at least one Oracle System Identifier (SID). Global Database Name and SID for this database.		
Global Da	tabase Name: orcl.localhost.localdomain SID: orcl		
- Database The numbe "Help" for the Standard U	e Character Set r of language groups to be stored determine which database character set to use. See he definition of language groups. For the Unicode database character set, select "Unicode TF-8 AL32UTF8"		
Select Dat	abase Character set: Unicode standard UTF-8 AL32UTF8		
Database File Location Use the file system for database storage. For best database organization and performance, Oracle recommends installing database files and Oracle software on separate disks.			
Specify D	atabase File Location: //u01/software/Apps/Oracle10/orada Browse		
Help	) Installed Products ) Back Next ) Install ) Cancel		

**15.** In the "Specify Database Schema Password" screen, select the **Use the same password for all accounts** radio button, then and enter and re-enter the desired password. Make a record of this password, then click **Next**.

	Oracle Univer	sal Installer: Specify Database	Schema Passwords			
			$\sigma \circ \sigma$			
1	Specify Database	Schema Passwords	5			
	The Starter Database contains p and be locked at the end of inst passwords for those accounts yo install functions are left unlocked passwords for these accounts.	rre-loaded schemas, most of whi allation. After the installation is c ou wish to use. Schemas used for d, and passwords for these accor r these accounts	ich have passwords that will expire omplete, you must unlock and set new the database management and post- unts will not expire. Specify the			
	User Name	Enter Password	Confirm Password			
	575		8			
	SYSTEM					
	SYSMAN					
$\geq$	DBSNMP					
	0					
	Use the same password for all the accounts					
	Enter Password: *******	Confirm Pass	word: *******			
	Help         Installed Products         Back         Next         Install         Cancel           ORACLE         OR					

**16.** In the "Specify Instance Name and ias\_admin password" screen, enter a unique instance name and a unique password. Re-enter the password and make a record of all values in this screen, including the administrator user name (ias\_admin). When you are finished, click **Next**.

Oracle Universal Installer: Specify Instance Name and ias_admin Password					
Specify Insta	nce Name and ias_admin Password				
All Oracle Application S hostname and domain	erver Infrastructure instances installed on a host must have unique names. The name of the host are appended to the instance name.				
Each Oracle Applicatior performed the installati installed by the same u	Each Oracle Application Server Infrastructure instance has its own password, regardless of which user performed the installation. Passwords are not shared across instances, even if the instances were installed by the same user.				
The password must ha	ve a minimum of 5 alphanumeric characters, maximum 30 characters, and at ers must be a number.				
Administrator Usernam	e: ias_admin				
Instance Name:	oracldir				
ias_admin Password:	******				
Confirm Password:	******				
><>>					
Help	Help         Installed Products         Back         Next         Install         Cancel				
ORACLE					

**17.** In the "Privileged Operating System Groups" screen, keep the default options and click **Next**.



**18.** In the "Summary" screen, review the configuration choices you have made, then click **Install**. Wait until the installation completes successfully.



**19.** When the following dialog appears, run the requested script as the root user, then click **OK**.



**20.** In the "Configuration Assistants" screen, allow all configuration steps to complete. If any of the steps fail, correct the indicated problem, then re-run the configuration process. When the configuration process completes successfully, click **Next**.

Oracle Universal Installer: Specify Inventory directory and credentials
Specify Inventory directory and credentials
You are starting your first installation on this host. As part of this install, you need to specify a directory for installer files. This is called the "inventory directory". Within the inventory directory, the installer automatically sets up subdirectories for each product to contain inventory data and will consume typically 150 Kilobytes per product.
Enter the full path of the inventory directory.
/home/oracledir/oralnventory Browse
You can specify an Operating System group that has write permission to the above inventory directory. You can leave the field blank if you want to perform the above operations as a Superuser.
specily operating system group name.
Help         Installed Products         Back         Next         Install         Cancel
ORACLE

- **21.** Allow the database configuration to complete.
- 22. In the "End of Installation" screen, click Exit.

#### Note

Make a record of the information displayed in the "Please Remember" dialog box (by copying and pasting it into a text file, for example) for future reference. Additional configuration information for your installation can be found in the file, <ora\_home>/config./ias.properties. Specifically, look for the string, OIDport. This is the port on which Oracle Directory Server is listening for LDAP connections.

## **C. Post-Installation Steps**

Complete these steps to test your Oracle Directory Server installation.

- **1.** Test the management server:
  - **a.** Log in to the Management Application using the following credentials:

#### Note

By default, the URL is http://localhost.localdomain:1158/. The URL for your system is also part of the text file you created in step 22 on page 164.

```
User name: ias_admin
```

**Password:** <ias\_admin\_password> (you created this password in step 16 on page 162)

**b.** Log in to the Database Management Application using the following credentials:

```
Note
```

By default, the URL is http://localhost.localdomain:5500/em. The URL for your system is also part of the text file you created in step 22 on page 164.

User name: sys

**Password:** <db\_schema\_password> (you created this password in step 15 on page 162)

Connect As: SYSDBA

- **2.** Test the LDAP server:
  - **a.** Change to the <oracle\_home>/bin directory.
  - **b.** Run the following command:

```
./ldapbind -h localhost -p <OIDport>
where <OIDport> is the port number you obtained in step 22 on page 164.
Example output:
bind successful
```

FatWire Configuring Third-Party Software: Version 7.0.1

# **Accessing Oracle Directory Manager**

- 1. Change to the <oracle\_home>/bin directory:
- 2. Run the following command: ./oidadmin
- 3. In the "Directory Server Connection" dialog box, click OK.



- 4. Add a connection entry for your Directory Server instance.
  - a. In the "Directory Server Name Manager" screen, click Add.

~		Directory Server N	lame Manage	5 <b>1</b>	///// = • ×
ſ	Server	Port		Available	
ľ					Add
					Edit
l					Remove
	Help		QK	Cancel Ap	ply <u>R</u> evert

- **b.** In the "Directory Server Connection" pop-up dialog, enter the following values, then click **OK**.
  - Server: localhost
  - Port: <OIDport> (the port number you obtained in step 22 on page 164)

Dire Dire	ectory Server Con	nection 🛛 🗶
Server:		
Port:	389	
Help		OK Cancel

**5.** In the "Directory Server Name Manager" screen, select the new connection entry and click **OK**.

Directory Server Name Manager				
Server	Port	Available		
🚴 localhost	389	Yes	Add	
			Edit	
ι			Remove	
Help			Bevert	

- **6.** In the **Credentials** tab of the "Oracle Directory Manager Connect" screen, enter the following values:
  - User: cn=orcladmin
  - **Password:** <db\_schema\_password> (you created this password in step 15 on page 162)



- - × Oracle Directory Manager  $\sim$ @ 9 0 B / A 8 1 6 0 9 🛛 🖓 段 ? ORACLE ⊖ 🕞 Oracle Internet Directory Servers  $\ominus$  , cn = orcladmin@localhost:389 ➡ ∰Access Control Management 🕁 🖺 Attribute Uniqueness Managemer – 📶 Audit Log Management 🕂 🖫 Change Log Management 🕀 📶 Entry Management Barbage Collection Management Description of the second Policy Management 🕩 🗱 Password Verifier Management 🕀 🏥 Plug-in Management Replication Management -🔩 Schema Management 🕀 🎼 Server Management 🗄 😔 Server Chaining Management Oracle Internet Directory Oracle Directory Manager Version10.1.4.0.1 Production
- 7. Click Login. Oracle Directory Manager loads.

# Configuring ODS Password Security for Content Server

This section show you how to configure password security in Oracle Directory Server to meet Content Server's security requirements.

- 1. Log in to Oracle Directory Manager as cn=orcladmin. For instructions, see "Accessing Oracle Directory Manager," on page 166.
- **2.** In the tree on the left, expand the **Password Policy Management** node, then the node containing your DN (that is, the namespace you selected in step 13 on page 160):



3. Under the node containing your DN, select the Password Policy for Realm... node.

4. Increase the password expiration time from 120 days to 5 years.

In the **General** tab in the main pane, locate the "Password Expire Time" property. The default value of this property, expressed in seconds, is 10368000 (120 days). Change this value to 155520000 (5 years).

	Oracle Directory Manager	
<u>F</u> ile Edit ⊻iew Operation Help		
🙋 🧐 😂 🗞 🖉 🖄 🕤	4 2 V 🔀 V ∺ 📍	ORACLE
(System Objects )(	/Password Policy for Realm dc=oraclelinux,dc=com	)
gorclodipAgentName=Iplane	Ceneral CAccount Lockout CellP Lockout	Password Syntax
- GorclodipAgentName=Iplane		
- ClodipAgentName=Idifim	Enable OID Password Policy	
e in a second pagent Name = 1 agge		
eDirection and a second		Must Supply Old Password when Medifyin
epicodipAgentivame=eDirec		Must Supply Old Lassword When Modifyi
		Ser Password Reversible Encryption
		Reset Password upon Next Login
		Old Password can be New Password
Audit Log Monogoment		Allow Hash Comparison
Addit Log Management	Grace Login Constraint:	Number of Grace Logins after Password Ex
Entry Management	Number of Grace Logins after Password Expiration:	5
Garbage Collection Management	Period for Grace Logins after Password Expiration:	
Per Password Policy Management	Personal Function Times	
$\phi$ - $\omega$ cn=pwdPolicies.cn=Comm	Password Expiry Time:	10368000
Password Policy for Rea	Minimum Age for Password Self-Modify.	
😔 🗘 cn = pwdPolicies. cn = Comm	Password Expiration Warning:	604800
Len = default	Display Name:	Password Policy for Realm dc=oraclelinux.c
🕀 🐖 Password Verifier Managemen		
⊕ 🎼 Plug-in Management		
🛛 🕀 🗐 Replication Management		v. D
- 🖧 Schema Management		
🕞 🙀 Server Management 🛛 🥃	Help	VIqqA

5. Select the **Password Syntax** tab.

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- 6. Configure password syntax constraints as follows:
  - **a.** Enable alpha-only passwords (that is, passwords that contain letters, but do not contain digits). You do this by setting the number of required numeric characters to none.

#### Note

Default Content Server passwords are alpha-only. If you are using these default passwords on your installation, you **must** enable alpha-only passwords in Oracle Directory Server.

Locate the property named **Number of Numeric Characters** and change its value from 1 (default) to 0.

- **b.** Reduce the minimum password length to four characters. Locate the property named **Minium Number of Characters for Password** and change its value from 5 (default) to 4.
- **c.** Click **Apply** to save your changes.



# **Modifying User Passwords**

- 1. Log in to Oracle Directory Manager as cn=orcladmin. For instructions, see "Accessing Oracle Directory Manager," on page 166.
- **2.** In the tree on the left, expand the **Password Policy Management** node, then the node containing your DN (that is, the namespace you selected in step 13 on page 160).
- **3.** Under the node representing your DN, expand the **cn=Users** node and select the user whose password you want to modify.
- 4. Select the **Properties** tab.
- 5. In the userPassword field, enter the new password.



6. Click Apply to save your changes.

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# **Deleting Users**

This section shows you how to delete a user in Oracle Directory Server.

- 1. Log in to Oracle Directory Manager as cn=orcladmin. For instructions, see "Accessing Oracle Directory Manager," on page 166.
- 2. In the tree on the left, expand the **Password Policy Management** node, then the node containing your DN (that is, the namespace you selected in step 13 on page 160).
- **3.** Under the node representing your DN, expand the **cn=Users** node and select the user you want to delete.
- 4. Right-click the selected user and select **Delete** from the context menu.



5. In the confirmation pop-up dialog that appears, click **OK**.

# **Connecting to ODS Using an LDAP Browser**

This section shows you how to connect to Oracle 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.** Enter the following information:
  - Host: localhost (if connecting remotely, enter the actual host name)
  - **Base DN:** leave blank
  - Anonymous bind: unchecked
  - User DN: cn=orcladmin
  - Append base DN: unchecked
  - **Password:** <dbschema\_password> (you created this password in step 15 on page 162)

		Connect	
Session L	ist Quick Connect		
Connecti	on Options		
- Host Info	)		
Host	localhost		Port: 389 Version: 3 💌
Base DN:			<b>•</b>
	Fetch DNs	SSL 🔤	Anonymous bind
- User Info	)		
User DN	cn=orcladmin		📄 append base DN
Password	*****		
			Connect Cancel

4. Click **Connect** to start your session.



5. Navigate to your DN (that is, the namespace you selected in step 13 on page 160).

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# Chapter 14 Setting Up MS Active Directory Server 2003

This chapter provides instructions for setting up the currently supported Microsoft Active Directory Server (ADS) for use with Content Server.

#### Note

You must set up ADS before you run the CS LDAP integrator.

This chapter contains the following sections:

- Installing MS Active Directory Server
- Accessing the "Active Directory Users and Computers" Console
- Modifying User Passwords
- Deleting Users
- Configuring ADS Password Security for Content Server
- Connecting to ADS Using an LDAP Browser

# Installing MS Active Directory Server

This section shows you how to install MS Active Directory Server 2003 for use with Content Server.

The procedure consists of the following steps:

- A. Install the Operating System
- B. Set the Machine's Name and Suffix
- C. Configure the Machine's Network Settings
- D. Install the Local DNS Server
- E. Configure the Local DNS Server
- F. Install MS Active Directory Server 2003

## A. Install the Operating System

On the target machine, install Windows Server 2003 (any flavor except Web will do).

When the installation is complete, leave the installation disc in the drive – you will need it to complete the installation of ADS.

## B. Set the Machine's Name and Suffix

1. Open the "System Properties" dialog.

This can be done in several ways. The fastest way is to right-click the **My Computer** icon on the desktop and select **Properties** from the context menu.

- 2. Select the Computer Name tab.
- 3. Click Change.



- 4. In the pop-up window that appears, do the following:
  - **a.** Enter the desired name for this machine. Make a record of this name.
  - **b.** Select the **Workgroup** radio button and enter a **unique** workgroup name. Make a record of this name.

Computer Name Changes
You can change the name and the membership of this computer. Changes may affect access to network resources.
Computer name:
win2k3activedir
Full computer name: win2k3activedir.vm.fatwire.com
More]
Member of
VMFATWIRE
OK Cancel

- c. Click More.
- **d.** In the second pop-up window that appears, enter the DNS suffix for this machine. Make a record of this suffix.

DNS Suffix and NetBIOS Computer Name	? ×
Primary DNS suffix of this computer:	
vm.fatwire.com	
Change primary DNS suffix when domain membership changes	
NetBIOS computer name: WIN2K3ACTIVEDIR	
This name is used for interoperability with older computers and services.	
OK Can	cel

- e. Make sure the Change primary DNS suffix when domain membership changes check box is not checked.
- f. Click **OK** to close the "DNS Suffix and NetBIOS Computer Name" pop-up window.
- 5. Click OK to close the "Computer Name Changes" pop-up window.
- 6. In the "System Properties" dialog box, click OK.
- 7. Restart the machine.

## C. Configure the Machine's Network Settings

Configure the machine's network settings as follows:

- 1. Set the IP address to an unused static IP address.
- 2. Set the preferred DNS server to the machine's IP address.
- **3.** Make sure that the **Append primary and connection-specific DNS suffixes** check box on the **Advanced** tab under **DNS** settings in the **TCP/IP Protocol** properties for the machine's network interface is selected.
- 4. Make sure that **Append parent suffixes of the primary DNS suffix** check box is selected.

For instructions on configuring your machine's network settings, see the Windows Server 2003 documentation.

## D. Install the Local DNS Server

- 1. Open the "Control Panel" and double-click Add and Remove Programs.
- 2. Click Add/Remove Windows Components.
- **3.** In the "Windows Components Wizard" pop-up window, select the **Networking Services** item (**not** its check box) and click **Details**.

Windows Components Wizard	
Windows Components You can add or remove components of Windows.	Ē
To add or remove a component, click the checkbox. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.	
Components:	
🗹 🥶 Internet Explorer Enhanced Security Configuration	0.0 MB 🔺
🔲 🚉 Management and Monitoring Tools	8.7 MB
🔲 🛃 Networking Services	4.4 MB 💻
🔲 🚔 Other Network File and Print Services	0.1 MB
Bemote Installation Services	4 N MB 💌
Description: Contains a variety of specialized, network-related services and protocols.	
Total disk space required: 11.7 MB	······
Space available on disk: 21188.3 MB	
<u> &lt; B</u> ack <u>N</u> ext > (	Cancel Help
4. In the pop-up window that appears, select the check box next to **Domain Name System (DNS)** and click **OK**. The pop-up window closes.

Networking Services	×
To add or remove a component, click the check box. A shaded box mear of the component will be installed. To see what's included in a component	ns that only part t, click Details.
Subcomponents of Networking Services:	
🗹 📇 Domain Name System (DNS)	2.7 MB 🔼
🗆 🗔 🌉 Dynamic Host Configuration Protocol (DHCP)	0.0 MB
🗌 🗔 🖳 Internet Authentication Service	0.0 MB
🗆 🛄 Remote Access Quarantine Service	0.1 MB
RPC over HTTP Proxy	0.1 MB
E Simple TCP/IP Services	0.0 MB 🚽
🗆 📮 Windows Internet Name Service (WINS)	1.5 MB 💌
Description: Sets up a DNS server that answers query and update requinames.	ests for DNS
Total disk space required: 14.4 MB	Details
Space available on disk: 21188.3 MB	2.5.12100
ОК	Cancel

- 5. In the "Windows Component Wizard" screen, click Next.
- 6. When the installation completes successfully, click Finished.

Windows Components Wizard		×
	Completing the Windows Components Wizard You have successfully completed the Windows Components Wizard.	
Y	To close this wizard, click Finish.	
	< Back	Help

#### E. Configure the Local DNS Server

- 1. In the "Control Panel," double-click the Administrative Tools icon.
- 2. Double-click the DNS icon.
- **3.** In the "dnsmgmt console," select the machine name you entered in step 4 on page 179.
- 4. Right-click the machine name and select **Configure this DNS Server** from the context menu.
- 5. In the "Configure a DNS Server Wizard" pop-up window that appears, click Next.

Welcome to the Configure a DNS Server Wizard
This wizard helps you configure a DNS server by creating forward and reverse lookup zones and by specifying root hints and forwarders.
Before continuing, review the DNS checklists.
<b>DNS Checklists</b> For more information about configuring DNS, click Help.
To continue, click Next.
< Back Next > Cancel Help

6. In the "Select Configuration Action" screen, select the **Create forward and reverse** lookup zones radio button and click Next.

Configure a DNS Server Wizard	
Select Configuration Action You can choose the lookup zone types that are appropriate to your network size. Advanced administrators can configure root hints.	
Select the action you would like this wizard to perform:	
Create a forward lookup zone (recommended for small networks) This server is authoritative for the DNS names of local resources but forwards all other queries to an ISP or other DNS servers. The wizard will configure the root hints but not create a reverse lookup zone.	
Create forward and reverse lookup zones (recommended for large networks)) This server can be authoritative for forward and reverse lookup zones. It can be configured to perform recursive resolution, forward queries to other DNS servers, or both. The wizard will configure the root hints.	
C Configure root hints only (recommended for advanced users only) The wizard will configure the root hints only. You can later configure forward and reverse lookup zones and forwarders.	
< <u>B</u> ack <u>N</u> ext > Cancel Help	

7. In the "Forward Lookup Zone" screen, select the Yes, create a forward lookup zone (recommended) radio button and click Next.

Configure a DNS Server Wizard
Forward Lookup Zone You can create a forward lookup zone now or create one later by running the New Zone Wizard in the DNS console.
A forward lookup zone translates DNS names to IP addresses and network services. This is an essential function for most DNS servers.
Do you want to create a forward lookup zone now?
Yes, create a forward lookup zone now (recommended)
C No. don't create a forward lookup zone now
For more information about forward lookup zones, click Help.
<u> &lt; B</u> ack <u>N</u> ext > Cancel Help

8. In the "Zone Type" screen, select the **Primary Zone** radio button and click **Next**.

Zone Type The DN5 server supports various types of zones and storage.
Select the type of zone you want to create:      O Primary zone      Creates a copy of a zone that can be updated directly on this server.
C Secondary zone Creates a copy of a zone that exists on another server. This option helps balance the processing load of primary servers and provides fault tolerance.
Styb zone Creates a copy of a zone containing only Name Server (NS), Start of Authority (SOA), and possibly glue Host (A) records. A server containing a stub zone is not authoritative for that zone.
Store the zone in <u>A</u> ctive Directory (available only if DNS server is a domain controller)
< Back Next > Cancel Help

**9.** In the "Zone Name" screen, enter the name of the zone you are creating. The zone name is the domain suffix you entered in step d on page 179. Click **Next**.

Zone Name What is the name of the new zone?	
The zone name specifies the portion of the DNS namespace f authoritative. It might be your organization's domain name (f or a portion of the domain name (for example, newzone.micn not the name of the DNS server.	or which this server is 'or example, microsoft.com) osoft.com). The zone name is
Zone name: vm.fatwire.com	
For more information about zone names, click Help.	
< <u>B</u> ack <u>N</u> ext >	Cancel Help

**10.** In the "Zone File" screen, keep the default zone file name and click **Next**.

New Zone Wizard	×
Zone File You can create a new zone file or use a file copied from another DNS server.	
Do you want to create a new zone file or use an existing file that you have copied from another DNS server?	
Create a new file with this file name:	
vm.fatwire.com.dns	
C ⊔se this existing file: To use this existing file, ensure that it has been copied to the folder %SystemRoot%\system32\dns on this server, and then click Next.	
< <u>B</u> ack <u>N</u> ext > Cancel	Help

**11.** In the "Dynamic Update" screen, select the **Allow both nonsecure and secure dynamic updates** radio button and click **Next**.



**12.** In the "Reverse Lookup Zone" screen, select the **Yes**, **create reverse lookup zone now** radio button and click **Next**.

Configure a DNS Server Wizard
Reverse Lookup Zone You can create a reverse lookup zone now or create one later by running the New Zone Wizard in the DNS console.
A reverse lookup zone translates IP addresses to DNS names. Reverse lookup zones are usually necessary only if programs require this information.
Do you want to create a reverse lookup zone now?
Yes, create a reverse lookup zone now
O No, don't create a reverse lookup zone now
For more information about reverse lookup zones, click Help.
< Back Next > Cancel Help

13. In the "Zone Type" screen, select the Primary Zone radio button and click Next.



**14.** In the "Reverse Lookup Zone Name" screen, select the **Network ID** radio button and enter the first three octets of the machine's IP address (you set this address in step 1 on page 180), then click **Next**.

New Zone Wizard
Reverse Lookup Zone Name A reverse lookup zone translates IP addresses into DNS names.
To identify the reverse lookup zone, type the network ID or the name of the zone.
Reverse lookup zone name:     3.19.172.in-addr.arpa
For more information on creating a reverse lookup zone, click Help.

15. In the "Zone File" screen, keep the default zone file name and click Next.



**16.** In the "Dynamic Update" screen, select the **Allow both nonsecure and secure dynamic updates** radio button and click **Next**.

New Zone Wizard	×
<b>Dynamic Update</b> You can specify that this DNS zone accepts secure, nonsecure, or no dynamic updates.	
Dynamic updates enable DNS client computers to register and dynamically update the resource records with a DNS server whenever changes occur. Select the type of dynamic updates you want to allow:	eir
<ul> <li>Allow only secure dynamic updates (recommended for Active Directory) This option is available only for Active Directory-integrated zones.</li> <li>Allow both nonsecure and secure dynamic updates Dynamic updates of resource records are accepted from any client.</li> <li>This option is a significant security vulnerability because updates can be accepted from untrusted sources.</li> </ul>	
Do not allow dynamic updates Dynamic updates of resource records are not accepted by this zone. You must up these records manually.	date
< <u>B</u> ack <u>N</u> ext > Cancel He	эlp

**17.** In the "Forwarders" screen, select the **No, it should not forward queries** radio button and click **Next**.

Configure a DN5 Server Wizard
Forwarders Forwarders are DNS servers to which this server sends queries that it cannot answer.
Should this DNS server forward queries?
O yes, it should forward queries to DNS servers with the following IP addresses:
Coptional)
No, it should not forward queries
If this server is not configured to use forwarders, it can still resolve names using root name servers.
For more information about forwarders, click Help.
< <u>B</u> ack <u>N</u> ext > Cancel Help

**18.** In the "Completing the Configure a DNS Server Wizard" screen, click **Finish**.

Configure a DNS Server Wizard		
	Completing the Configure a DNS Server Wizard	
	You have successfully completed the Configure a DNS Server Wizard. When you click Finish, the following settings will be saved.	
	Settings:	
	DNS server to configure: WIN2K3ACTIVEDIR Forward lookup zone to create: vm.fatwire.com Reverse lookup zone to create: 3.19.172.in-addr.arpa	
do resolution using nolocity of the hosts that will use this DNS server to po this DNS server for name resolution, and then verify n resolution using nslookup. If you added a new primary add resource records to it for the hosts whose names to be resolved by this DNS server.		
	To close this wizard, click Finish.	
	< Back Finish Cancel Help	

**19.** Close or minimize the DNS server window.

#### F. Install MS Active Directory Server 2003

- 1. Click Start, then Run, and enter dcpromo in the "Run" dialog box.
- 2. In the "Welcome to the Active Directory Installation Wizard" screen, click Next.

Welcome to the Active Directory Installation Wizard This wizard helps you install Active Directory services on this server, making the server a domain controller.
If this is the first time you have installed Active Directory, it is recommended that you first read the overview in <u>Active</u> <u>Directory Help</u> . To continue, click Next.
< Back Cancel

3. In the "Operating System Compatibility" screen, click Next.

Active Directory Installation Wizard			
Operating System Compatibility Improved security settings in Windows Server 2003 affect older versions of Windows.			
Domain controllers running Windows Server 2003 implement security settings that require clients and other servers to communicate with those domain controllers in a more secure way.			
Some older versions of Windows, including Windows 95 and Windows NT 4.0 SP3 or earlier, do not meet these requirements. Similarly, some non-Windows systems, including Apple Mac $\rm DSX$ and SAMBA clients, might not meet these requirements.			
For more information, see <u>Compatibility Help</u> .			
< <u>B</u> ack <u>Next&gt;</u> Cancel			

**4.** In the "Domain Controller Type" screen, select the **Domain controller for a new domain** radio button and click **Next**.

Active Directory Installation Wizard	×		
Domain Controller Type Specify the role you want this server to have.	A.		
Do you want this server to become a domain controller for a new domain or an additional domain controller for an existing domain?         Image: The server will become the first domain on the new domain tree, or new forest. This server will become the first domain controller in the new domain.         Image: Additional domain controller for an existing domain.         Image: Additional domain will delete all local accounts on this server.         All cyptographic keys will be deleted and should be exported before			
All encrypted data, such as EFS-encrypted files or e-mail, should be decrypted before continuing or it will be permanently inaccessible.			
< <u>B</u> ack <u>N</u> ext >	Cancel		

- 5. "In the "Create a New Domain" screen, select the **Domain in a new forest** radio button and click **Next**.
- 6. In the "New Domain Name" screen, enter the DNS name you entered in step 9 on page 184, then click Next.

Active Directory Installation Wizard		×
New Domain Name Specify a name for the new domain.		
Type the full DNS name for the new domain (for example: headquarters.example.microse	n oft.com).	
Full DNS name for new domain:		1
		J
	< <u>B</u> ack <u>N</u> ext> Can	cel

**7.** In the "NetBIOS Domain Name" screen, keep the default value and click **Next**. Make a record of this value.

Active Directory Installation Wizard	×
NetBIOS Domain Name Specify a NetBIOS name for the new domain.	
This is the name that users of earlier versions of Windows will use to identify the new domain. Click Next to accept the name shown, or type a new name.	
Domain NetBIOS name:	
	_
< <u>B</u> ack <u>N</u> ext> Cancel	]

8. In the "Database and Log Folders" screen, click Next.

Active Directory Installation Wizard	×
Database and Log Folders Specify the folders to contain the Active Directory database and log file	s.
For best performance and recoverability, store the database and the lo hard disks.	g on separate
Where do you want to store the Active Directory database?	
Database folder:	
C:\WINDOWS\NTDS	B <u>r</u> owse
Where do you want to store the Active Directory log?	
Log folder:	
C:\WINDOWS\NTDS	Br <u>o</u> wse
< <u>B</u> ack <u>N</u> ext	Cancel

9. In the "Shared System Volume" screen, click Next.



**10.** In the "Diagnostic Results" screen, make sure that the diagnostic has completed successfully, then click **Next**. If the diagnostic fails, correct the indicated problem, click **Back** and then **Next** to rerun the diagnostic.

e I	Directory Installation Wizard		
NS	C Registration Diagnostics Verify DNS support, or install DNS on this computer.		
	Diagnostic Results		
	The registration diagnostic has been run 1 time.		
DNS registration support for this domain controller has been verified. To continue, click Next.			
	Details		
The primary DNS server tested was: win2k3activedir.vm.fatwire.com (172.19.3.4)			
The zone was: vm.fatwire.com			
	The test for dynamic DNS update support returned: "The operation completed successfully."		
	< <u>B</u> ack <u>N</u> ext > Cancel		

11. In the "Permissions" screen, select the **Permissions compatible only with Windows** 2000 and Windows 2003 operating systems and click Next.



**12.** In the "Directory Services Restore Mode Administrator Password" screen, enter a password and click **Next**. Make a record of this password.

Active	Active Directory Installation Wizard				
Di	rectory Services Restore Mo This password is used when yo Mode.	ode Administrator Password u start the computer in Directory Services Restore			
	Type and confirm the password you want to assign to the Administrator account used when this server is started in Directory Services Restore Mode.				
	The restore mode Administrator account is different from the domain Administrator account. The passwords for the accounts might be different, so be sure to rememb both.				
	Restore Mode Password:	•••••			
	<u>C</u> onfirm password:	••••••			
	For more information about Dire	ctory Services Restore Mode, see <u>Active Directory</u>	<u>Help</u> .		
		< <u>B</u> ack <u>N</u> ext>	Cancel		

13. In the "Summary" screen, click Next.

Active Directory Installation Wizard
Summary Review and confirm the options you selected.
You chose to: Configure this server as the first domain controller in a new forest of domain trees. The new domain name is vm.fatwire.com. This is also the name of the new forest. The NetBIOS name of the domain is VM Database folder: C:\WINDOWS\NTDS Log file folder: C:\WINDOWS\NTDS SYSVOL folder: C:\WINDOWS\SYSVOL The password of the new domain administrator will be the same as the password of the administrator of this computer.]
To change an option, click Back. To begin the operation, click Next.
<u> ≺B</u> ack <u>N</u> ext > Cancel

14. In the "Completing the Active Directory Installation Wizard" screen, click Next.



15. In the pop-up dialog that appears, click **Reboot Now** and wait for the machine to restart.

Active Directory Installation Wizard				
Windows must be restarted before the changes made by the Active Directory Installation wizard take effect.				
<u>Bestart Now</u>	on't Restart Now			

Active Directory Server is now installed and ready for use.

# Accessing the "Active Directory Users and Computers" Console

You use the "Active Directory Users and Computers" console to manage your Active Directory Server configuration. To access the console, perform the following steps:

- 1. Click Start, then Run to bring up the "Run" dialog box.
- 2. In the "Run" dialog box, enter dsa.msc.
- 3. Click OK.

The "Active Directory Users and Computers" console loads.



# Configuring ADS Password Security for Content Server

This section shows you how to configure password security in Active Directory Server to meet Content Server's requirements.

- 1. Open the "Active Directory Users and Computers" console.
- **2.** In the tree on the left, right-click the desired domain and select **Properties** from the context menu.
- 3. In the dialog that appears, select the Group Policy tab.

vm.fatwire.com Properties			? ×		
General Managed By Gro	up Policy				
Current Group Policy Object Links for vm					
Group Policy Object Links		No Override	Disabled		
Group Policy Objects higher This list obtained from: win2k	in the list have the H «3activedir.vm.fatwii	nighest priority. re.com			
New Add	<u>E</u> dit		Up		
Options Dele <u>t</u> e.	<u>P</u> roperties		Do <u>w</u> n		
Block Policy inheritance					
	ОК	Cancel	Apply		

4. The Group Policy Object Editor appears, showing the group policy you selected.



- 5. In the tree on the left, expand Computer Configuration > Windows Settings > Security Settings > Account Policies and select Password Policy.
- 6. In the main pane, double-click the **Minimum password length** item.
- 7. In the pop-up dialog that appears, enter 4 as the value and click **OK**.

Minimum password length Properties									
	Security Policy Setting								
	Minimum password length								
	☑ Define this policy setting								
	Password must be at least: 5 characters								
	OK Cancel A	pply							

- 8. Double-click the **Password must meet complexity requirements** item.
- 9. In the pop-up window that appears, select the **Disabled** radio button and click **OK**.
- 10. From the File menu, select Exit, then click OK.
- 11. Bring up the "Run" dialog, enter gpudate, and click OK.

### **Modifying User Passwords**

This section shows you how to modify a user's password in Active Directory Server.

- 1. Open the "Active Directory Users and Computers" console.
- 2. In the tree on the left, select Users.
- 3. In the main pane, select the user whose password you want to modify.
- 4. Right-click the desired user name and select **Reset Password** from the context menu.
- 5. In the dialog that appears, enter and re-enter the new password, then click OK.

### **Deleting Users**

This section shows you how to delete a user in Active Directory Server.

- 1. Open the "Active Directory Users and Computers" console.
- 2. In the tree on the left, select Users.
- 3. In the main pane, select the user whose password you want to modify.
- 4. Right-click the desired user name and select **Delete** from the context menu.
- 5. In the pop-up dialog that appears, click Yes.

## **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:
  - 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: uncheck
  - User DN: administrator@<DNS\_suffix>
  - Append base DN: uncheck
  - **Password:** <ADS\_password> (you created this password in step 12 on page 193)

·//////				Connect						×
Session L	.ist	Quick Co	nnect							
Connecti	on	Options								
- Host Info	)									
Host	local	host			Port	389	Ver	sion:	3 -	-
Base DN:							-			
	Fetch DNs		SSL	🗌 Anonymous bir					d	
- User Info	) —									
User DN	orcladmin	📃 append base D								
Password	***	****								
<u></u>					[	Conne	ect	C	ancel	

4. Click Connect.

FatWire Configuring