

Oracle® Collaboration Suite
Installation and Configuration Guide
Release 2 (9.0.4.1) for AIX-Based Systems
Part No. B12204-02

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Oracle Collaboration Suite Installation and Configuration Guide, Release 2 (9.0.4.1) for AIX-Based Systems

Part No. B12204-02

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Preface

This manual is your primary source of introduction, preinstallation, installation, and postinstallation information for Oracle Collaboration Suite.

This preface contains these topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Structure](#)
- [Related Documents](#)
- [Conventions](#)

Audience

Oracle Collaboration Suite Installation and Configuration Guide is intended for anyone installing or configuring Oracle Collaboration Suite.

To use this document, you must be familiar with AIX-based systems.

Documentation Accessibility

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Structure

This document contains:

Chapter 1, "Installation Overview"

This chapter discusses installation and configuration concepts for Oracle Collaboration Suite and provides information about the features and intent of each Oracle Collaboration Suite installation.

Chapter 2, "Preparing for Installation"

This chapter describes how to plan each installation of Oracle Collaboration Suite.

Chapter 3, "Upgrading to Oracle Collaboration Suite Release 2 (9.0.4.1)"

This chapter discusses how to upgrade to Oracle Collaboration Suite Release 2 (9.0.4.1) and its components.

Chapter 4, "Oracle Collaboration Suite Deployment Methods"

This chapter explains how to upgrade and downgrade certain Oracle Collaboration Suite components and discusses possible conflicts among them. It also covers database tuning if you plan to use existing Oracle⁹ⁱ databases with Oracle Collaboration Suite components.

Chapter 5, "Getting Started with Installation"

This chapter describes how to get started with installation, including mounting your CD-ROM and starting Oracle Universal Installer.

Chapter 6, "Installing Oracle Collaboration Suite"

This chapter describes how to install Oracle⁹ⁱAS Infrastructure, Oracle Collaboration Suite information storage, and Oracle Collaboration Suite.

Chapter 7, "Installing and Configuring Oracle Voicemail & Fax"

This chapter describes how to install and configure the Oracle Voicemail & Fax component of Oracle Collaboration Suite.

Chapter 8, "Silent and Non-Interactive Installation"

This chapter describes how to silently install Oracle Collaboration Suite.

Chapter 9, "Deinstalling Oracle Collaboration Suite Components"

This chapter describes how to deinstall Oracle Collaboration Suite components.

Chapter 10, "Configuring Oracle Calendar"

This chapter describes how to configure Oracle Calendar.

Chapter 11, "Configuring Oracle Email"

This chapter describes how to configure Oracle Email.

Chapter 12, "Configuring Oracle Files"

This chapter describes how to configure Oracle Files.

Chapter 13, "Configuring Search Features"

This chapter describes how to configure search features of Oracle Collaboration Suite.

Chapter 14, "Configuring Oracle Web Conferencing"

This chapter describes how to configure Oracle Web Conferencing.

Appendix A, "Java Access Bridge Installation"

This appendix describes the procedures required for installation of Java Access Bridge.

Appendix B, "Installation Checklists"

This appendix provides checklists for each installation of Oracle Collaboration Suite.

Appendix C, "Troubleshooting"

This appendix identifies common installation problems and solutions.

Appendix D, "Default Port Numbers and Port Ranges"

This appendix identifies the ports used by Oracle Collaboration Suite components.

Appendix E, "Windows Services"

This appendix lists the services that Oracle Collaboration Suite for Windows installation creates during installation.

Appendix F, "Installing Oracle Calendar Standalone"

This appendix describes requirements and procedures for installing the components of Oracle Calendar standalone.

Appendix G, "Oracle Collaboration Suite Client Installations"

This appendix describes the system requirements, installation instructions, and deinstallation instructions for the components on the Oracle Collaboration Suite Client CD-ROM.

Glossary

Related Documents

For more information, see these Oracle resources:

- Oracle Collaboration Suite Documentation Library, Release 2 (9.0.4.1)
- Oracle9i Application Server Documentation Library, Release 2
- Oracle9i Database Documentation Library, Release 2
- Oracle9iAS Portal Documentation Library, Release 2

Printed documentation is available for sale in the Oracle Store at

<http://oraclestore.oracle.com/>

To download free release notes, installation documentation, white papers, or other collateral, please visit the Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

<http://otn.oracle.com/membership/>

If you already have a username and password for OTN, then you can go directly to the documentation section of the OTN Web site at

<http://otn.oracle.com/documentation/>

For additional information, see:

Third-Party Book by (insert first and last names of authors). (insert name of publisher), (insert publication date).

Conventions

This section describes the conventions used in the text and code examples of this documentation set. It describes:

- [Conventions in Text](#)
- [Conventions in Code Examples](#)
- [Conventions for Windows Operating Systems](#)

Conventions in Text

We use various conventions in text to help you more quickly identify special terms. The following table describes those conventions and provides examples of their use.

Convention	Meaning	Example
Bold	Bold typeface indicates terms that are defined in the text or terms that appear in a glossary, or both.	When you specify this clause, you create an index-organized table .
<i>Italics</i>	Italic typeface indicates book titles or emphasis.	<i>Oracle Database Concepts</i> Ensure that the recovery catalog and target database do <i>not</i> reside on the same disk.
UPPERCASE monospace (fixed-width) font	Uppercase monospace typeface indicates elements supplied by the system. Such elements include parameters, privileges, datatypes, RMAN keywords, SQL keywords, SQL*Plus or utility commands, packages and methods, as well as system-supplied column names, database objects and structures, usernames, and roles.	You can specify this clause only for a NUMBER column. You can back up the database by using the BACKUP command. Query the TABLE_NAME column in the USER_TABLES data dictionary view. Use the DBMS_STATS.GENERATE_STATS procedure.
lowercase monospace (fixed-width) font	Lowercase monospace typeface indicates executable programs, filenames, directory names, and sample user-supplied elements. Such elements include computer and database names, net service names and connect identifiers, user-supplied database objects and structures, column names, packages and classes, usernames and roles, program units, and parameter values. <i>Note:</i> Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter sqlplus to start SQL*Plus. The password is specified in the orapwd file. Back up the datafiles and control files in the /disk1/oracle/dbs directory. The department_id, department_name, and location_id columns are in the hr.departments table. Set the QUERY_REWRITE_ENABLED initialization parameter to true. Connect as oe user. The JRepUtil class implements these methods.

Convention	Meaning	Example
<i>lowercase italic monospace (fixed-width) font</i>	Lowercase italic monospace font represents placeholders or variables.	You can specify the <i>parallel_clause</i> . Run <i>old_release</i> .SQL where <i>old_release</i> refers to the release you installed prior to upgrading.

Conventions in Code Examples

Code examples illustrate SQL, PL/SQL, SQL*Plus, or other command-line statements. They are displayed in a monospace (fixed-width) font and separated from normal text as shown in this example:

```
SELECT username FROM dba_users WHERE username = 'MIGRATE';
```

The following table describes typographic conventions used in code examples and provides examples of their use.

Convention	Meaning	Example
[]	Anything enclosed in brackets is optional.	DECIMAL (<i>digits</i> [, <i>precision</i>])
{ }	Braces are used for grouping items.	{ENABLE DISABLE}
	A vertical bar represents a choice of two options.	{ENABLE DISABLE} [COMPRESS NOCOMPRESS]
...	Ellipsis points mean repetition in syntax descriptions. In addition, ellipsis points can mean an omission in code examples or text.	CREATE TABLE ... AS <i>subquery</i> ; SELECT <i>col1</i> , <i>col2</i> , ... , <i>coln</i> FROM employees;
Other symbols	You must use symbols other than brackets ([]), braces ({ }), vertical bars (), and ellipsis points (...) exactly as shown.	acctbal NUMBER(11,2); acct CONSTANT NUMBER(4) := 3;
<i>Italics</i>	Italicized text indicates placeholders or variables for which you must supply particular values.	CONNECT SYSTEM/ <i>system_password</i> DB_NAME = <i>database_name</i>
UPPERCASE	Uppercase typeface indicates elements supplied by the system. We show these terms in uppercase in order to distinguish them from terms you define. Unless terms appear in brackets, enter them in the order and with the spelling shown. Because these terms are not case sensitive, you can use them in either UPPERCASE or lowercase.	SELECT last_name, employee_id FROM employees; SELECT * FROM USER_TABLES; DROP TABLE hr.employees;
lowercase	Lowercase typeface indicates user-defined programmatic elements, such as names of tables, columns, or files. Note: Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	SELECT last_name, employee_id FROM employees; sqlplus hr/hr CREATE USER mjones IDENTIFIED BY ty3MU9;

Conventions for Windows Operating Systems

The following table describes conventions for Windows operating systems and provides examples of their use.

Convention	Meaning	Example
Choose Start > <i>menu item</i>	How to start a program.	To start the Database Configuration Assistant, choose Start > Programs > Oracle - HOME_NAME > Configuration and Migration Tools > Database Configuration Assistant .
File and directory names	File and directory names are not case sensitive. The following special characters are not allowed: left angle bracket (<), right angle bracket (>), colon (:), double quotation marks ("), slash (/), pipe (), and dash (-). The special character backslash (\) is treated as an element separator, even when it appears in quotes. If the filename begins with \\, then Windows assumes it uses the Universal Naming Convention.	c:\winnt\ "system32 is the same as C:\WINNT\SYSTEM32
C:\>	Represents the Windows command prompt of the current hard disk drive. The escape character in a command prompt is the caret (^). Your prompt reflects the subdirectory in which you are working. Referred to as the <i>command prompt</i> in this manual.	C:\oracle\oradata>
Special characters	The backslash (\) special character is sometimes required as an escape character for the double quotation mark (") special character at the Windows command prompt. Parentheses and the single quotation mark (') do not require an escape character. Refer to your Windows operating system documentation for more information on escape and special characters.	C:\>exp HR/HR TABLES=employees QUERY=\ "WHERE job_id='SA_REP' and salary<8000\"
HOME_NAME	Represents the Oracle home name. The home name can be up to 16 alphanumeric characters. The only special character allowed in the home name is the underscore.	C:\> net start OracleHOME_NAME\TNSListener

Convention	Meaning	Example
<p><i>ORACLE_HOME</i> and <i>ORACLE_BASE</i></p>	<p>In releases prior to Oracle8i release 8.1.3, when you installed Oracle components, all subdirectories were located under a top level <i>ORACLE_HOME</i> directory. The default for Windows NT was C:\orant.</p> <p>This release complies with Optimal Flexible Architecture (OFA) guidelines. All subdirectories are not under a top level <i>ORACLE_HOME</i> directory. There is a top level directory called <i>ORACLE_BASE</i> that by default is C:\oracle\product\10.1.0. If you install the latest Oracle release on a computer with no other Oracle software installed, then the default setting for the first Oracle home directory is C:\oracle\product\10.1.0\db_n, where <i>n</i> is the latest Oracle home number. The Oracle home directory is located directly under <i>ORACLE_BASE</i>.</p> <p>All directory path examples in this guide follow OFA conventions.</p> <p>Refer to <i>Oracle Database Installation Guide for Windows</i> for additional information about OFA compliances and for information about installing Oracle products in non-OFA compliant directories.</p>	<p>Go to the <i>ORACLE_BASE\ORACLE_HOME\rdbms\admin</i> directory.</p>

Part I

Oracle Collaboration Suite Pre-Installation Requirements

Part I contains conceptual information and pre-installation requirements that you should read before installing Oracle Collaboration Suite Release 2 (9.0.4.1).

Part 1 contains the following chapters:

- [Chapter 1, "Installation Overview"](#)
- [Chapter 2, "Preparing for Installation"](#)

Installation Overview

This chapter provides an overview of the Oracle Collaboration Suite CD Pack contents and explains how to deploy the three Oracle Collaboration Suite installations. Oracle Corporation recommends reading this chapter before proceeding with the installation.

This chapter contains these topics:

- [What Are the Contents of the Oracle Collaboration Suite CD Pack?](#)
- [Installation Roadmap](#)
- [What's New](#)

What Are the Contents of the Oracle Collaboration Suite CD Pack?

The Oracle Collaboration Suite CD Pack includes the following CD-ROM sets:

- [Oracle9iAS Infrastructure Installation](#)
- [Oracle Collaboration Suite Information Storage Installation](#)
- [Oracle Collaboration Suite Installation](#)
- [Oracle Collaboration Suite Clients](#)
- [Oracle Voicemail & Fax](#)
- [Oracle Collaboration Suite Documentation](#)

These CD-ROM sets are described in the following sections.

Oracle9iAS Infrastructure Installation

Installation of the Oracle9iAS infrastructure is a prerequisite for all middle tier applications, such as Oracle Files and Oracle Calendar, that are installed with Oracle Collaboration Suite. The Oracle9iAS infrastructure must be installed first.

Note: You can use the Oracle9iAS infrastructure provided in your Oracle Collaboration Suite CD Pack, or you can use an existing Oracle9iAS infrastructure if it is upgraded to work with Oracle Collaboration Suite. For more information, refer to [Chapter 3, "Upgrading to Oracle Collaboration Suite Release 2 \(9.0.4.1\)"](#).

The Oracle9iAS infrastructure consists of the following components:

- Oracle9iAS Metadata Repository

A preseeded database containing metadata and schemas needed to run Oracle Collaboration Suite instances. This repository is installed and configured with every Oracle9iAS infrastructure installation.

- Oracle Internet Directory

A directory service that enables information about dispersed users and network resources to be shared. Oracle Internet Directory implements the **Lightweight Directory Access Protocol (LDAP)**, version 3.

- Oracle9iAS Single Sign-On

An enterprise-wide user authentication process that enables access to multiple accounts and Oracle Collaboration Suite applications.

- Oracle Management Server

Processes system management tasks and administers the distribution of these tasks across the network using the Oracle Enterprise Manager Console. The Console and its three-tier architecture can be used with the Oracle Enterprise Manager Web Site to manage not only Oracle Collaboration Suite, but your entire Oracle environment.

- J2EE and Web Cache

This installation of J2EE and Web Cache configures **Oracle HTTP Server** and **Oracle9iAS Containers for J2EE**. These components are for internal use with the Oracle9iAS infrastructure.

Note: Oracle Corporation does not support use of the infrastructure installation of J2EE and Web Cache for customer application deployment.

Oracle Collaboration Suite Information Storage Installation

The Oracle Collaboration Suite information storage includes preconfigured Oracle9i Release 2 (9.2) starter databases for use with the middle tier applications listed in "[Oracle Collaboration Suite Installation](#)" on page 1-2. Install the Oracle Collaboration Suite information storage after you install the Oracle9iAS Infrastructure.

Oracle Collaboration Suite Installation

The Oracle Collaboration Suite installation provides an integrated enterprise-wide communication, content management, and context management solution. This enables users of desktops, laptops, personal digital assistants (PDAs), faxes, telephones, and Web clients to collaborate with one another and perform daily tasks.

Oracle Collaboration Suite must be installed after you have:

- Installed the Oracle9iAS infrastructure
- Configured the Oracle Internet Directory and Oracle9iAS Single Sign-On components of the Oracle9iAS infrastructure on your network, optimally on a separate computer
- Installed the Oracle Collaboration Suite information storage, which includes preconfigured databases for Oracle Email, Oracle Files, and Oracle Web Conferencing

Oracle Collaboration Suite consists of the following middle tier components:

- Oracle Calendar

Provides calendaring, scheduling, and personal information management (PIM) capabilities through desktop clients, the Web, and any mobile device. The scalable calendar architecture allows the use of sophisticated group calendars and resource scheduling across an entire enterprise.

- Oracle Email

A reliable, scalable, and secure messaging system that reduces administration, hardware, and software costs by providing a consolidated mail store. Oracle Email uses an Oracle9i database as a single message store for e-mail, taking advantage of Oracle access, storage, and management of all types of information. A preconfigured Oracle9i database is available on the Oracle Collaboration Suite information storage CD-ROM.

Note: Oracle Email contains Oracle Calendar, Oracle Calendar Sync, and Oracle Connector for Outlook.

- Oracle Files

A content management application that supports user collaboration and file sharing through a consolidated, scalable, and reliable file server. Oracle Files provides a sophisticated, Web-based user interface and industry- standard protocols that enable users to easily share files of any kind with others in a workspace or across an enterprise. Oracle Files uses an Oracle9i database to store content. A preconfigured Oracle9i database is available on the Oracle Collaboration Suite information storage CD-ROM.

- Oracle Web Conferencing

Brings real-time online collaboration to any enterprise enabling customers, employees, teams, and partners to meet online within the context provided by the content, commerce, and comprehensive business flows of e-business.

- Oracle Ultra Search

Provides an enterprise search engine that enables corporate users to locate valuable information within the intranet or extranet. Oracle Ultra Search provides a search facility for unified searching of data sources like Web pages and Oracle9i databases.

- Oracle Voicemail & Fax

A reliable and highly scalable voice mail and fax system that provides centralized and secure message storage and retrieval for voice mail and faxes. Oracle Voicemail & Fax uses the Oracle Collaboration Suite information storage for voice mail and fax messages.

- Oracle9iAS Wireless

Provides mobile employees with full access to all of their corporate information anywhere, from any device.

Note: Oracle9iAS Wireless includes built-in applications that must be configured after installation. The underlying Oracle9iAS Wireless stack, then the applications must be configured before use. For information on configuring these applications and other Oracle9iAS Wireless components, see *Oracle9iAS Wireless Administrator's Guide*.

- Oracle Collaboration Suite Web Client
Oracle Collaboration Suite provides an integrated Web client for browser-enabled computers, using the underlying Oracle9iAS infrastructure to provide a secure, single sign-on environment for accessing messages (e-mail, voice mail, and fax), calendar and directory information, and content stored in Oracle Files.
- Oracle9iAS Portal
Enables you to install, configure, and manage the portlets that are included with Oracle Collaboration Suite.

Note: Oracle9iAS Portal is a complete solution for building, deploying, and monitoring Web database applications and content-driven Web sites. Oracle9iAS Portal enables you to create and view database objects through an easy-to-use HTML-based interface. Contact your Oracle representative for information on licensing Oracle9iAS Portal.

All middle tier applications are installed with each Oracle Collaboration Suite installation. During the installation of Oracle Collaboration Suite, you can configure Oracle Calendar, Oracle Email, Oracle Files, Oracle Web Conferencing, and Oracle9iAS Portal. Optionally, you can configure these applications after installation.

Oracle Collaboration Suite Clients

Oracle Collaboration Suite Clients consist of the following components.

Oracle Calendar Desktop Clients:

- Oracle Connector for Outlook 9.0.4.1
- Oracle Calendar desktop client 9.0.4.1 for Windows
- Oracle Calendar desktop client 9.0.4 for Macintosh OS9 and OSX
- Oracle Calendar desktop client 9.0.4 for Linux x86
- Oracle Calendar desktop client 9.0.4.1 for Solaris Operating Environment (SPARC 32-bit)

Oracle Calendar Synchronization Clients:

- Oracle Calendar Sync 9.0.4.1 for Palm for Windows
- Oracle Calendar Sync 9.0.4 for Palm for Macintosh OS9 and OSX
- Oracle Calendar Sync 9.0.4.1 for Pocket PC for Windows

Developer Packages:

- Oracle Calendar SDK 9.0.4.1 (HP)

- Oracle Calendar SDK 9.0.4.1 (Linux)
- Oracle Calendar SDK 9.0.4.1 (Solaris)
- Oracle Calendar SDK 9.0.4.1 (Windows)
- Oracle Calendar SDK 9.0.4 (Macintosh)
- Oracle Calendar Web Services 9.0.4

Miscellaneous:

- Oracle Email `esmigration.zip`
- Oracle Files `FileSync.exe`

Oracle Voicemail & Fax

This CD-ROM installs Oracle Voicemail & Fax on Windows 2000.

See Also: [Chapter 7, "Installing and Configuring Oracle Voicemail & Fax"](#) for configuration instructions

Oracle Collaboration Suite Documentation

This CD-ROM includes the Oracle Collaboration Suite documentation library. You can view the documentation from the CD-ROM or copy it to your hard drive.

See Also: *Oracle Collaboration Suite Documentation Roadmap*

Installation Roadmap

This section provides an overview of the required procedures for installing and configuring Oracle Collaboration Suite.

See Also: [Chapter 3, "Upgrading to Oracle Collaboration Suite Release 2 \(9.0.4.1\)"](#) for information on upgrading to Oracle Collaboration Suite

This section contains the following topics:

- [General Installation Procedure](#)
- [Oracle Calendar Installation](#)
- [Oracle Email Installation](#)
- [Oracle Files Installation](#)
- [Oracle Web Conferencing Installation](#)
- [Oracle Ultra Search Installation](#)
- [Oracle Voicemail & Fax Installation](#)
- [Oracle9iAS Wireless Installation](#)

Note: See [Appendix C, "Troubleshooting"](#) if you encounter problems during the installation or configuration process

General Installation Procedure

The general procedure for installing Oracle Collaboration Suite is as follows:

1. Complete the installation planning requirements described in [Chapter 2, "Preparing for Installation"](#).

If you plan to install Oracle Web Conferencing, read the *Oracle Web Conferencing Sizing Guide* for hardware and software requirements for the voice conversion and document conversion servers.

The voice conversion server is a group of Oracle Web Conferencing components that dials into a voice conferencing system, converts the analog voice to digital format, and streams it. The document conversion server is a group of Oracle Web Conferencing components that converts Microsoft Office documents into HTML for viewing in Document Presentation mode.

After reading the *Oracle Web Conferencing Sizing Guide*, set up the voice conversion server hardware by following the instructions in ["Additional Software Requirements for Oracle Web Conferencing"](#) on page 2-5. Install prerequisite software on the systems on which the voice conversion server and document conversion servers will reside.

2. Plan your deployment methodology by reading [Chapter 4, "Oracle Collaboration Suite Deployment Methods"](#).
3. Print and complete the installation checklists in [Appendix B, "Installation Checklists"](#).
4. Complete the installation procedures described in [Chapter 5, "Getting Started with Installation"](#).
5. Install the Oracle[®]AS infrastructure as described in ["Installing Oracle[®]AS Infrastructure"](#) on page 6-1.
6. Install the Oracle Collaboration Suite information storage database as described in ["Installing Oracle Collaboration Suite Information Storage Database"](#) on page 6-3.
7. Install the Oracle Collaboration Suite middle tier by following the installation procedures described in ["Installing the Oracle Collaboration Suite Middle Tier"](#) on page 6-6.
8. Configure the installed Oracle Collaboration Suite components by following the procedures described in the component configuration chapters in [Part III, "Oracle Collaboration Suite Component Configuration"](#).

During the middle tier installation process, you can choose which components of Oracle Collaboration Suite to configure. Each of the individual components of Oracle Collaboration Suite have specific installation and configuration requirements that are outlined in the following sections.

Oracle Calendar Installation

This section contains the following topics:

- [Installing Oracle Calendar as Part of Oracle Collaboration Suite](#)
- [Installing Oracle Calendar Standalone](#)

Installing Oracle Calendar as Part of Oracle Collaboration Suite

The procedure for installing Oracle Calendar as part of Oracle Collaboration Suite is as follows:

1. Read the following sections in the *Oracle Calendar Administrator's Guide*:
 - Chapter 3, "Calendar Deployment" for sizing requirements, preinstallation checklists and deployment information
 - Appendix B, "Adjusting Calendar Kernel Parameters" for kernel parameter requirements
2. Read the Oracle Calendar chapter in the *Oracle Collaboration Suite Release Notes* for installation or configuration issues.
3. If you are upgrading from a previous version, read [Chapter 3, "Upgrading to Oracle Collaboration Suite Release 2 \(9.0.4.1\)"](#).
4. Follow Steps 1 through 7 in "[General Installation Procedure](#)" on page 1-6.
5. Follow the configuration procedures described in [Chapter 10, "Configuring Oracle Calendar"](#).
6. To install Oracle Connector for Outlook, Oracle Calendar desktop clients, or Oracle Calendar Sync clients, see [Appendix G, "Oracle Collaboration Suite Client Installations"](#).
7. See the *Oracle Calendar Administrator's Guide* for configuration and maintenance procedures for Oracle Calendar components. For detailed information concerning configuration parameters and command-line administration utilities, see the *Oracle Calendar Reference Manual*.

Installing Oracle Calendar Standalone

The procedure for upgrading from Oracle CorporateTime to Oracle Calendar 9.0.4 is as follows:

1. Read the following sections in the *Oracle Calendar Administrator's Guide*:
 - Chapter 3, "Calendar Deployment" for sizing requirements, preinstallation checklists and deployment information
 - Appendix B, "Adjusting Calendar Kernel Parameters" for kernel parameter requirements
2. Read the Oracle Calendar chapter in the *Oracle Collaboration Suite Release Notes* for installation or configuration issues.
3. To upgrade from Oracle CorporateTime to Oracle Calendar 9.0.4, follow the steps described in [Appendix F, "Installing Oracle Calendar Standalone"](#).
4. To install Oracle Connector for Outlook, Oracle Calendar desktop clients, or Oracle Calendar Sync clients, see [Appendix G, "Oracle Collaboration Suite Client Installations"](#).
5. See the *Oracle Calendar Administrator's Guide* for configuration and maintenance procedures for Oracle Calendar components. For detailed information concerning configuration parameters and command-line administration utilities, see the *Oracle Calendar Reference Manual*.

Oracle Email Installation

The procedure for installing Oracle Email is as follows

1. Read the Oracle Email chapter in the *Oracle Collaboration Suite Release Notes* for installation or configuration issues.
2. Follow Steps 1 through 7 in "[General Installation Procedure](#)" on page 1-6.

3. Configure Oracle Email by following the procedures in [Chapter 11, "Configuring Oracle Email"](#).
4. See the *Oracle Email Administrator's Guide* for information on managing and maintaining Oracle Email.

Oracle Files Installation

The procedure for installing Oracle Files is as follows:

1. Read the *Oracle Files Planning Guide* to determine sizing requirements and hardware information.
2. Read the Oracle Files chapter in the *Oracle Collaboration Suite Release Notes* for installation and configuration issues.
3. Follow Steps 1 through 7 in "[General Installation Procedure](#)" on page 1-6.
4. Configure Oracle Files by following the procedures in [Chapter 12, "Configuring Oracle Files"](#).

See Also: "[Troubleshooting Oracle Files Installation](#)" on page C-2 to resolve Oracle Files configuration issues

5. To install Oracle FileSync, follow the procedures in "[Oracle FileSync](#)" on page G-24.
6. See the *Oracle Files Administrator's Guide* for information on managing and maintaining Oracle Files.

Oracle Web Conferencing Installation

The procedure for installing Oracle Web Conferencing is as follows:

1. Read the Oracle Web Conferencing chapter in the *Oracle Collaboration Suite Release Notes* for the latest installation and configuration issues.
2. Read [Chapter 4, "Oracle Collaboration Suite Deployment Methods"](#).
3. Follow Steps 1 through 7 in "[General Installation Procedure](#)" on page 1-6.
4. Follow the procedures in [Chapter 14, "Configuring Oracle Web Conferencing"](#) to configure Oracle Web Conferencing.
5. See the *Oracle Web Conferencing Administrator's Guide* for information on:
 - Deployment scenarios not covered in this guide
 - Advanced customization
 - Monitoring the system
 - Running reports
 - Creating and managing sites

Oracle Ultra Search Installation

The procedure for installing Oracle Ultra Search is as follows:

1. Read "[Deploying Oracle Ultra Search](#)" on page 4-5 to determine sizing requirements and hardware information.
2. Follow Steps 1 through 7 in "[General Installation Procedure](#)" on page 1-6.

3. Configure Oracle Ultra Search by following the procedures in [Chapter 13, "Configuring Search Features"](#).
4. See the *Oracle Ultra Search User's Guide* for information on managing and maintaining the Oracle Ultra Search instance.

Oracle Voicemail & Fax Installation

The section describes the procedures for installing Oracle Voicemail & Fax.

Note: You must install and configure Oracle Email before you install Oracle Voicemail & Fax.

To install Oracle Voicemail & Fax:

1. Read the Oracle Voicemail & Fax chapter in the *Oracle Collaboration Suite Release Notes* for installation or configuration issues.
2. If you have not done so already, install and configure Oracle Email as described in "[Oracle Email Installation](#)" on page 1-7.
3. Install and configure Oracle Voicemail & Fax as described in [Chapter 7, "Installing and Configuring Oracle Voicemail & Fax"](#).
4. See the *Oracle Voicemail & Fax Administrator's Guide* for information on managing and maintaining Oracle Voicemail & Fax.

Oracle9iAS Wireless Installation

The procedure for installing Oracle9iAS Wireless is as follows:

1. Follow Steps 1 through 7 in "[General Installation Procedure](#)" on page 1-6.
2. See the *Oracle9iAS Wireless Administrator's Guide* for information on configuring and managing your Oracle9iAS Wireless instance.

What's New

Oracle Collaboration Suite Release 2 Patch Set 1 (9.0.4.2.0) is now available. This patch set contains many important bug fixes, as well as new product features. To obtain the patch, go to Oracle MetaLink at <http://metalink.oracle.com>.

For information about the new features and bugs fixed in this patch, see the *Oracle Collaboration Suite Readme Release 2 Patch Set 1 (9.0.4.2.0)*.

Preparing for Installation

This chapter describes how to plan each Oracle Collaboration Suite installation. This chapter describes how to plan each Oracle Collaboration Suite installation.

This chapter contains these topics:

- [Hardware Requirements](#)
- [Operating System Versions](#)
- [Operating System Patches and Packages](#)
- [Additional Software Requirements for Oracle Web Conferencing](#)
- [Multilingual Support](#)
- [Online Documentation Requirements](#)
- [Port Allocations](#)
- [Certified Software](#)
- [Release Notes](#)
- [Environment Preinstallation Tasks](#)
- [Before You Install](#)
- [Installing Oracle Collaboration Suite on a Single Computer](#)

Hardware Requirements

This section contains these topics:

- [Determining Random Access Memory](#)
- [Determining Swap Space](#)

[Table 2–1](#) describes the minimum hardware requirements for each installation of Oracle Collaboration Suite.

Table 2–1 Oracle Collaboration Suite Hardware Requirements ¹

Requirement	Value
AIX CPU ²	All AIX compatible processors (64-bit)
Monitor	256 color viewing capability
/var/tmp Directory Space	Oracle Collaboration Suite: 33 MB Oracle9iAS Infrastructure: 7 MB Oracle Collaboration Suite Information Storage: 34 MB

Table 2–1 (Cont.) Oracle Collaboration Suite Hardware Requirements ¹

Requirement	Value
Swap Space	2 GB
Memory (minimum requirement)	Oracle Collaboration Suite: 512 MB Oracle9iAS Infrastructure: 512 MB Oracle Collaboration Suite information storage: 512 MB Note: Allocate additional memory depending on the applications and the number of users on the systems.
Disk Space for AIX	Oracle Collaboration Suite: 6.0 GB Oracle9iAS Infrastructure: 5.6 GB Oracle Collaboration Suite Information Storage: 6.0 GB

¹ For detailed information regarding Oracle Files hardware and sizing requirements, see the *Oracle Files Planning Guide*.

² An additional CPU is recommended on the computer where the Oracle Collaboration Suite information store is running if you want Oracle Text indexing of documents in Oracle Files or e-mail messages in Oracle Email.

Note: Regardless of the operating system, disk space must be available on a single disk. Oracle Collaboration Suite does not support spanning the installation over multiple disks.

Determining Available Disk Space

To determine the amount of disk space available on the system, enter the following command:

```
# df -k
```

To determine the amount of disk space available in the `/var/tmp` directory, enter the following command:

```
# df -k /var/tmp
```

Determining Random Access Memory

Use the following command to determine the amount of random access memory installed on the system:

```
# /usr/sbin/lsattr -E -l sys0 -a realmem
```

If the amount of RAM installed is less than 512 MB, you must install more before you can continue for the installation.

Determining Swap Space

To determine the size of configured swap space, enter the following command:

```
# /usr/sbin/lspv -a
```

Operating System Versions

[Table 2–2](#) lists the operating system version requirements, and the command to determine the current operating system version.

Table 2–2 Operating System Versions and Requirements

Item	Operating System Requirements
Operating System	<p>AIX 5.1 (64-bit only) or AIX 5.2 (64-bit only).</p> <p>Use the following command to determine the operating system version currently installed on your system:</p> <pre># oslevel -r 5100-02</pre>
Software	<p>IBM JDK 1.3.1, with patches IY30887, IY33957, and IY47055.</p> <p>To determine what version of JDK is installed in the default location, enter the following command:</p> <pre>\$ /usr/java131/bin/java -fullversion</pre> <p>This should display the following:</p> <pre>java full version "J2RE 1.3.1 IBM AIX build ca131-20030630a"</pre> <p>If the JDK is not found, or if the version installed is lower than 1.3.1, download and install JDK 1.3.1 from the following Web site:</p> <p>http://www.ibm.com/developerworks/java/jdk/aix/index.html</p>
Window Manager	<p>Use any supported IBM AIX window manager that supports Motif, such as dtwm, twm and olwm.</p>

Operating System Patches and Packages

Your operating system can require the installation of patches and packages. Several of the patches listed in the following tables have dependency patches that must also be installed. See the `readme` files included with the patches and packages for additional information. When downloading a specific patch or package, verify dependencies and download the dependency patches or packages, if required.

Note: Your operating system must include the `sendmail` program.

This section contains these topics:

- [Required AIX-Based System Patches for Oracle9iAS Infrastructure and Oracle Collaboration Suite](#)
- [Required AIX-Based System Patches for Oracle Collaboration Suite Information Storage](#)
- [Operating System Requirements to Support Real Application Clusters](#)
- [Additional Operating System Requirements](#)

Required AIX-Based System Patches for Oracle9iAS Infrastructure and Oracle Collaboration Suite

Table 2–3 lists the operating system patches you must install for Oracle9iAS Infrastructure installation and Oracle Collaboration Suite installation on AIX-based systems.

Table 2–3 Required AIX-Based System Patches for Oracle9iAS Infrastructure and Oracle Collaboration Suite

Operating System	Required Patches
AIX 5.1	<ul style="list-style-type: none"> ■ ML04 ■ Fileset bos.adt.libm ■ Fileset bos.perf.libperfstat ■ IY39508 ■ IY40840
AIX 5.2	<ul style="list-style-type: none"> ■ ML01 ■ Fileset bos.adt.libm ■ Fileset bos.perf.libperfstat ■ IY39508 ■ IY40840
Clusterware patches for AIX-based systems	<ul style="list-style-type: none"> ■ HACMP/ES CRM 4.4.1 ■ IY21047 ■ IY28111 ■ PSSP 3.4

Required AIX-Based System Patches for Oracle Collaboration Suite Information Storage

Table 2–4 lists the operating system patches you must install for Oracle Collaboration Suite information storage on AIX-based systems.

Table 2–4 Patches and Packages for Oracle Collaboration Suite Information Storage

Operating System	Required Patches	Download Location
AIX 5.1	Maintenance Level 04 (ML04), IY339508, IY40840	http://techsupport.services.ibm.com/server/fixes
AIX 5.2	Maintenance Level 01 (ML01), IY339508, IY40840	http://techsupport.services.ibm.com/server/fixes

Operating System Requirements to Support Real Application Clusters

Table 2–5 lists the operating system packages and patches required to support Real Application Clusters.

Table 2–5 Patches and Packages for Real Application Clusters

Platform	Packages and Patches
AIX-Based Systems	PSSP 3.4 (SP only), HACMP/ES CRM 4.4.1 (RS6000 only)

Additional Operating System Requirements

Table 2–6 lists additional software required for all platforms:

Table 2–6 Additional Required Operating System Requirements

Software	Requirement
X Server and Window Manager	<p>Use any X Server and window manager supported by your UNIX operating system.</p> <p>For Hummingbird Exceed, use a native window manager.</p> <p>For WRQ Reflections, allow a remote window manager.</p> <p>To determine if your X Window System is working properly on your local system, enter the following command:</p> <pre>prompt> xclock</pre> <p>The X clock should appear on your monitor.</p>
Required executables	The following executables must be present: <code>make</code> , <code>ar</code> , <code>ld</code> , and <code>nm</code> .

Additional Software Requirements for Oracle Web Conferencing

Oracle Web Conferencing uses a Document Conversion Server to convert Microsoft Office documents into HTML or other compatible formats for sharing during conferences. The server must reside on a separate computer from the middle tier, and it must have Microsoft Windows NT and Microsoft Office 2000 or Microsoft Office XP.

Oracle Web Conferencing also uses a Voice Conversion Server to support streaming voice data during conferences or playback of recorded conferences with voice data. The server requires Microsoft Windows 2000 Server SP4 or above, and Intel Dialogic System Software 5.1.1 SP1 or above.

See Also: *Oracle Web Conferencing Sizing Guide* for more details about required hardware and software

Multilingual Support

The Oracle Collaboration Suite user interface is available in the following languages: Arabic, Brazilian Portuguese, Danish, Dutch, English, Finnish, French, German, Greek, Italian, Japanese, Korean, Norwegian, Portuguese, Simplified Chinese, Spanish, Swedish, Traditional Chinese, and Turkish.

Oracle Calendar Multilingual Support Limitations

Oracle Calendar server administration tools have an English interface but support entering data in all Oracle Collaboration Suite supported languages.

The Oracle Calendar clients are available only in English with the following exceptions:

- **Oracle Connector for Outlook:** All Oracle Collaboration Suite supported languages, except Arabic
- **Oracle Calendar Web client:** All Oracle Collaboration Suite supported languages, except Arabic
- **Oracle Calendar desktop client for Windows:** English, French, German, and Japanese
- **Oracle Calendar Sync for Palm for Windows:** English, French, German, and Japanese
- **Oracle Calendar Sync for Pocket PC for Windows:** English, French, German, and Japanese

Online Documentation Requirements

You can view Oracle Collaboration Suite documentation online using a Web browser or Portable Document Format (PDF) Viewer.

[Table 2-7](#) lists the requirements for viewing Oracle Collaboration Suite online documentation.

Table 2-7 Online Documentation Requirements

Requirement	Items
Online Readers	Any one of the following: HTML <ul style="list-style-type: none"> ▪ Netscape Navigator 4.7 or later ▪ Microsoft Internet Explorer 5.0 or later PDF <ul style="list-style-type: none"> ▪ Acrobat Reader 4.0 or later ▪ Acrobat Reader+Search 4.0 or later ▪ Acrobat Exchange 4.0 or later ▪ PDFViewer Web browser plug-in 1.0 or later
Library-wide HTML search and navigation	Active Internet connection
Disk Space	37.5 MB

See Also: *Oracle Collaboration Suite Documentation Roadmap*

Port Allocations

Following installation, Oracle Universal Installer creates a file named `portlist.ini` showing the ports assigned during the installation of Oracle Collaboration Suite components. The installation process automatically detects any port conflicts and selects an alternate port in the range allocated for that component. The file is located at:

```
$ORACLE_HOME/install/portlist.ini
```

See Also: [Appendix D, "Default Port Numbers and Port Ranges"](#)

Certified Software

Many Oracle Collaboration Suite components require a Web browser. All Oracle Collaboration Suite installations require an Oracle9iAS Infrastructure and Oracle9i database. A complete list of certified software, including certified Oracle9iAS Infrastructure releases, database releases, and Web browsers for Oracle Collaboration Suite is located at *OracleMetaLink*:

```
http://metalink.oracle.com
```

Release Notes

Before installing Oracle Collaboration Suite, Oracle Corporation recommends that you read *Oracle Collaboration Suite Release Notes*, available in the `doc` directory of each Oracle Collaboration Suite installation CD-ROM and on Oracle Technology Network. See *Oracle Collaboration Suite Documentation Roadmap* for more information about

Oracle Collaboration Suite documentation. Although this document is accurate at the time of publication, you can access the latest information and documentation on Oracle Technology Network:

<http://otn.oracle.com/>

Environment Preinstallation Tasks

This section contains these topics:

- [Setting Environment Variables](#)
- [Hostnames File Configuration](#)
- [Creating UNIX Accounts and Groups](#)
- [Real Application Clusters for Oracle Collaboration Suite Information Storage Installation](#)
- [Configuring Kernel Parameters for Oracle9iAS Infrastructure and Oracle Collaboration Suite](#)
- [Configuring Kernel Parameters for Oracle Collaboration Suite Information Storage](#)

Setting Environment Variables

[Table 2–8](#) explains how to set and unset environment variables.

Table 2–8 *Setting and Unsetting Environment Variables*

To...	C shell	Bourne/Korn shell
Set an environment variable	prompt> setenv VARIABLE value	prompt> VARIABLE=value;export VARIABLE
Unset an environment variable	prompt> unsetenv VARIABLE	prompt> unset VARIABLE

Note: You do not need to set the environment variables ORACLE_HOME, LIBPATH, TMP, TMPDIR, and TNS_ADMIN.

DISPLAY

Before starting Oracle Universal Installer, set the DISPLAY environment variable to refer to the X Server that displays Oracle Universal Installer. The format of the DISPLAY environment variable is:

hostname:display_number.screen_number

Oracle Collaboration Suite requires a running X Server to properly create graphics for Oracle Universal Installer, Web applications, and management tools. The frame buffer X Server installed with your operating system requires that you remain logged in and have the frame buffer running at all times. If you do not want to do this, then you must use a virtual frame buffer, such as X Virtual Frame Buffer (XVFB) or Virtual Network Computing (VNC).

Oracle Universal Installer configures this instance to use the same X Server from the installation process for applications and management tools. This X Server must either

always be running or you must reconfigure Oracle Collaboration Suite to use another X Server that is always running after the installation completes.

See Also:

- Your operating system documentation for more information about the DISPLAY environment variable
- Oracle Technology Network (<http://otn.oracle.com/>) for information about obtaining and installing XVFB or other virtual frame buffer solutions. Search Oracle Technology Network for "frame buffer".

Installing From a Remote Computer

Setting the DISPLAY environment variable enables you to run Oracle Universal Installer remotely from another workstation. On the system where you launch Oracle Universal Installer, set DISPLAY to the system name or IP address of your local workstation.

Note: You can use a PC X emulator to run the install if it supports a PseudoColor color model or PseudoColor visual. Set the PC X emulator to use a PseudoColor visual, and then start Oracle Universal Installer. See the X emulator documentation for instructions on how to change the color model or visual settings.

If you get an Xlib error similar to "Failed to connect to server", "Connection refused by server," or "Can't open display" when starting Oracle Universal Installer, then run the commands on your local workstations as listed in [Table 2-9](#).

Table 2-9 DISPLAY Environment Variable Commands

Shell Types	On Server Where Oracle Universal Installer Is Running	In Session on Your Workstation
C shell	prompt> setenv DISPLAY hostname:0.0	prompt> xhost + <i>server_name</i>
Bourne/Korn shell	prompt> DISPLAY=hostname:0.0;export DISPLAY	prompt> xhost + <i>server_name</i>

Hostnames File Configuration

Oracle Universal Installer requires that the fully-qualified hostname information appear in the configuration files for your computer. A fully-qualified hostname includes both the name of the system and its domain.

Failure to properly configure the hostname information in the listed files may result in runtime errors during Oracle Collaboration Suite installation.

Verify that /etc/hosts has the following format:

ip_address fully_qualified_hostname short_hostname aliases

The following example shows a properly configured /etc/hosts file:

148.87.9.44 oasdocs.us.oracle.com oasdocs oracleinstall

Verify that the hostname command returns this fully-qualified hostname before starting the install.

Creating UNIX Accounts and Groups

The installation process requires a special UNIX account and several special groups. See the following subsections for more information:

- [UNIX Group Name for the Oracle Universal Installer Inventory](#)
- [UNIX Account to Own Oracle Software](#)
- [UNIX Group Names for Privileged Groups](#)

Note: You must use the same operating system user account when adding additional Oracle Collaboration Suite installations on the same host.

UNIX Group Name for the Oracle Universal Installer Inventory

Use the `admintool` or `groupadd` utility to create a group name such as `oinstall`. The `oinstall` group owns the Oracle Universal Installer `oraInventory` directory. The `oracle` user account that runs the installation must have the `oinstall` group as its primary group.

Note: The UNIX group name must not exceed 8 characters, otherwise the Oracle Calendar configuration assistant will fail.

For more information about these utilities, see your operating system documentation.

UNIX Account to Own Oracle Software

The `oracle` account is the UNIX account that owns Oracle software for your system. You must run Oracle Universal Installer from this account.

Create an `oracle` account with the properties listed in [Table 2-10](#).

Table 2-10 Oracle Account Properties

Variable	Property
Login Name	Select any name to access the account. This document refers to the name as the <code>oracle</code> account.
Group Identifier	The <code>oinstall</code> group is used in this document.
Home Directory	Select a home directory consistent with other user home directories.
Login Shell	The default shell can be either the C, Bourne, or Korn shell.

Note: Use the `oracle` account only for installing and maintaining Oracle software. Never use it for purposes unrelated to Oracle Universal Installer. Do not use `root` as the `oracle` account.

UNIX Group Names for Privileged Groups

Two privileged groups are required for Oracle9iAS Infrastructure installation and Oracle Collaboration Suite information storage installation:

- Database operator group

- Database administrator group

These privileged groups are not required for Oracle Collaboration Suite installation.

Oracle documentation refers to these groups as OSOPER and OSDBA, respectively. Databases use these groups for operating system authentication. This is necessary in situations where the database is shut down and database authentication is unavailable.

The privileges of these groups are given to either a single UNIX group or two corresponding UNIX groups. There are two ways to choose which groups get the privileges:

- If the `oracle` account is a member of the `dba` group before starting Oracle Universal Installer, then `dba` is given the privileges of both OSOPER and OSDBA.
- If the `oracle` account is not a member of the `dba` group, then Oracle Universal Installer prompts you for the group names that get these privileges.

Table 2–11 lists the privileges for the OSOPER and OSDBA groups.

Table 2–11 Privileges for the OSOPER and OSDBA Groups

Group	Privileges
OSOPER	Permits the user to perform <code>STARTUP</code> , <code>SHUTDOWN</code> , <code>ALTER DATABASE OPEN/MOUNT</code> , <code>ALTER DATABASE BACKUP</code> , <code>ARCHIVE LOG</code> , and <code>RECOVER</code> , and includes the <code>RESTRICTED SESSION</code> privilege.
OSDBA	Contains all system privileges with <code>ADMIN OPTION</code> , and the OSOPER role; permits <code>CREATE DATABASE</code> and time-based recover.

Real Application Clusters for Oracle Collaboration Suite Information Storage Installation

Perform the following preinstallation steps to install Real Application Clusters.

See Also: *Oracle9i Real Application Clusters Setup and Configuration* for more information about preinstallation steps for Real Application Clusters. This manual is available on Oracle Technology Network at <http://otn.oracle.com/>

Steps to Perform as the root User for Real Application Clusters Installation

1. Log in as the `root` user.
2. Ensure that you have the OSDBA group defined in the `/etc/group` file on all nodes in the cluster. The OSDBA group name and number, and OSOPER group if you plan to designate one, must be identical for all nodes of a UNIX cluster accessing a single database. The default UNIX group name for the OSDBA group is `dba`.
3. Create the `oracle` account on each node of the cluster so that the account:
 - Has the `ORAINVENTORY` group as the primary group
 - Has the `dba` group as the secondary group
 - Is used only to install and update Oracle software
 - Has write permissions on remote directories

4. Create a mount point directory on each node to serve as the top of the Oracle software directory structure so that:
 - The name of the mount point on each node is identical to that on the initial node
 - The `oracle` account has read, write, and execute privileges
5. Set up user equivalence by adding entries for all nodes in the cluster on the node from which to run Oracle Universal Installer, including the local node, to either the `.rhosts` file of the `oracle` account or the `/etc/hosts.equiv` file.
6. Check user equivalence by executing a remote command on every node as the `oracle` user. For example, enter the following at the prompt:

```
prompt> rsh another_host pwd
```

7. Check RCP equivalence by copying a small file from every node to every node. For example, enter:

```
prompt> rcp /tmp/dummy_file another_host:/tmp/dummy_file
```

This is required for Oracle Universal Installer to install Oracle software on all selected nodes of the cluster.

Steps to Perform as the oracle User for Real Application Clusters

1. Log in as the `oracle` account.
2. Verify that the Cluster Membership Monitor is running, using the following commands for AIX-based systems:

HACMP

```
$ /usr/bin/lssrc -ls grpsvcs
```

Note: Verify that the `CLSTRMGR_cluster_id` has number of providers equal to the number of nodes.

PSSP 3.4

```
$ /usr/bin/lssrc -ls hags
```

Note: Verify that `css` has the correct number of nodes. There should also be a local provider.

3. Check for user equivalence of the `oracle` account by performing a remote login (`rlogin`) to each node in the cluster.

If you are prompted for a password, the `oracle` account does not have user equivalence. Ensure that you gave the same attributes to the `oracle` user on all the nodes in the cluster. Oracle Universal Installer cannot use the `rcp` command to copy Oracle products to the remote directories without user equivalence.

If you have not set up user equivalence, you must perform Step 6 in ["Steps to Perform as the root User for Real Application Clusters Installation"](#) on page 2-10.

4. Create at least one shared configuration file as an information repository for the database server configuration. If your platform supports the Cluster File System, skip this step.

Create a shared raw device of at least 100 MB for the Server Management (SRVM) configuration. Oracle Universal Installer prompts you for the name of this shared file on the Shared Configuration File Name Page. Alternatively, set the

environment variable `SRVM_SHARED_CONFIG` to the absolute path name of the shared raw device from which Oracle Universal Installer can retrieve the configuration file.

See Also: *Oracle9i Real Application Clusters Setup and Configuration* for more information about setting up a shared configuration file

Configuring Kernel Parameters for Oracle9iAS Infrastructure and Oracle Collaboration Suite

On AIX Based Systems you do not need to configure kernel parameters before installing Oracle9iAS Infrastructure and Oracle Collaboration Suite. However, you might need to modify some kernel parameters for performance reasons.

For more information, refer to Appendix A of the *Oracle9i Administrator's Reference Release 2 (9.2.0.1.0) for UNIX Systems: AIX-Based Systems, Compaq Tru64 UNIX, HP 9000 Series HP-UX, Linux Intel, and Sun Solaris*.

Configuring Kernel Parameters for Oracle Collaboration Suite Information Storage

Oracle Collaboration Suite information storage uses UNIX resources such as shared memory, swap memory, and semaphore extensively for interprocess communication. If your parameter settings are insufficient for Oracle Collaboration Suite information storage, then you experience problems during installation and instance startup.

The greater the amount of data you can store in memory, the faster your database operates. In addition, by maintaining data in memory, the UNIX kernel reduces disk I/O activity.

Review your kernel parameter settings to ensure that they meet Oracle Collaboration Suite information storage requirements. If you do not do this, you may experience errors during installation, or operational errors after installation. These are the recommended kernel parameter requirements for a typical Oracle Collaboration Suite information storage environment.

If you have previously tuned your kernel parameters to levels that meet your application needs, then continue to use these values. A system restart is necessary if you change the kernel settings for the kernel changes to take effect.

Kernel Parameter Settings for AIX-Based Systems)

AIX Based Systems do not require kernel parameter configuration prior to Oracle9i installation. However, certain system parameters may need to be adjusted to increase performance.

For more information, refer to Appendix A of the *Oracle9i Administrator's Reference Release 2 (9.2.0.1.0) for UNIX Systems: AIX-Based Systems, Compaq Tru64 UNIX, HP 9000 Series HP-UX, Linux Intel, and Sun Solaris*.

Before You Install

Before you begin the Oracle Collaboration Suite installation, enter the following commands:

```
# mv /usr/java131/bin/java /usr/java131/bin/java.ORIG
# cd /usr/java131/bin
# ln -sf ../jre/bin/java ./java
```

Installing Oracle Collaboration Suite on a Single Computer

Although Oracle Corporation recommends that you install the Oracle9iAS Infrastructure, Oracle Collaboration Suite information storage database, and Oracle Collaboration Suite middle tier on separate computers for better performance, you can install Oracle Collaboration Suite on one computer. A single-computer installation DVD is provided in the CD pack for Linux and Windows platforms. For other platforms, you can perform a single-computer installation using the CD-ROM sets in the CD pack.

See Also:

<http://otn.oracle.com/software/products/cs/files/README.html>

for information about single-computer
installations on Windows and

http://otn.oracle.com/software/products/cs/files/readme_linux.html

for information about single-computer
installations on Linux

Note: The Oracle Web Conferencing document conversion server and voice conversion server must be installed on a separate computer from the Oracle Collaboration Suite middle tier. Additionally, Oracle Corporation recommends that you install the Oracle Web Conferencing document conversion server and voice conversion server on separate computers. Both the Oracle Web Conferencing document conversion server and voice conversion server must be installed on Windows platforms.

See Also: *The Oracle Web Conferencing Administrator's Guide* for more information about the Oracle Web Conferencing document and voice conversion servers

Part II

Oracle Collaboration Suite Installation Procedures

Part II contains detailed instructions for installing Oracle Collaboration Suite Release 2 (9.0.4.1).

Part II contains the following chapters:

- [Chapter 3, "Upgrading to Oracle Collaboration Suite Release 2 \(9.0.4.1\)"](#)
- [Chapter 4, "Oracle Collaboration Suite Deployment Methods"](#)
- [Chapter 5, "Getting Started with Installation"](#)
- [Chapter 6, "Installing Oracle Collaboration Suite"](#)
- [Chapter 7, "Installing and Configuring Oracle Voicemail & Fax"](#)
- [Chapter 8, "Silent and Non-Interactive Installation"](#)
- [Chapter 9, "Deinstalling Oracle Collaboration Suite Components"](#)

Upgrading to Oracle Collaboration Suite Release 2 (9.0.4.1)

This chapter contains procedural information for upgrading existing Oracle Collaboration Suite Release 1 (9.0.3) installations and associated components to Oracle Collaboration Suite Release 2 (9.0.4.1).

This chapter contains these topics:

- [Upgrading CorporateTime Server 5.4 to Oracle Collaboration Suite](#)
- [Upgrading from Oracle Calendar Standalone External to Oracle Collaboration Suite](#)
- [Upgrading from Oracle Calendar Standalone Internal to Oracle Collaboration Suite](#)
- [Non Oracle Collaboration Suite Upgrade Instructions](#)

Upgrading CorporateTime Server 5.4 to Oracle Collaboration Suite

CorporateTime Server 5.4, internal or external, can be upgraded to Oracle Collaboration Suite Release 2 (9.0.4.1). While this is a supported upgrade path, the process involves manual steps.

To upgrade CorporateTime Server 5.4 to Oracle Collaboration Suite:

1. Upgrade CorporateTime Server 5.4 to Release 2 (9.0.4.1) of Oracle Calendar, standalone, as described in "[Server Upgrade](#)" on page F-12.
2. Install the Oracle Collaboration Suite infrastructure and middle tier as described in [Chapter 6, "Installing Oracle Collaboration Suite"](#).

Note: Ensure that you do not install into the \$ORACLE_HOME you used in step 1 on page 3-1.

3. Migrate the user information to the Oracle Internet Directory component of your new Oracle Collaboration Suite infrastructure.
4. Import your CorporateTime Calendar attributes, including the `ctCalXitem ID`, into the Oracle Internet Directory component of your new Oracle Collaboration Suite infrastructure.
5. Copy the Oracle Calendar database files, upgraded in step 1 on page 3-1, over to the Oracle Calendar component of your new Oracle Collaboration Suite installation.

Upgrading from Oracle Calendar Standalone External to Oracle Collaboration Suite

This section provides a high level outline on how to upgrade from an Oracle Calendar standalone installation with iPlanet Directory Server, to Oracle Collaboration Suite which uses Oracle Internet Directory. There are two possible upgrade scenarios.

- **Upgrading with Coexistence**—Use this procedure if Oracle Calendar is not the only application that uses iPlanet Directory Server. In this case you keep iPlanet Directory Server and synchronize the data in both directories.
- **Upgrading Without Coexistence**—Use this procedure if Oracle Calendar is the only application that uses iPlanet Directory Server. In this case you do not keep the iPlanet Directory Server.

Upgrading with Coexistence

This scenario assumes that you need to keep and manage iPlanet Directory Server along with the Oracle Internet Directory server. The Oracle Directory Integration Platform (DIP), a feature of Oracle Internet Directory, is used to keep the user data in both directories synchronized. A detailed procedure is available on Oracle Metalink

<http://metalink.oracle.com/>

The Document ID is 268947.1.

Some General Notes and Assumptions

Before you begin this procedure take note of the following assumptions and limitations regarding this procedure.

- You currently have Oracle Calendar standalone release 2 (9.0.4.2) and iPlanet Directory Server version 5.x installed and running.
- The synchronization will be one-way only (from iPlanet Directory Server to Oracle Internet Directory).
- Once the migration is completed, you can only add new users through iPlanet Directory Server.

Step 1 Install Oracle Collaboration Suite

Install Oracle Collaboration Suite release 2(9.0.4.2) and ensure that it is running.

Step 2 Migrate the Directory Entries from iPlanet Directory Server to Oracle Internet Directory

The directory entries must be exported from iPlanet Directory Server to an LDAP Data Interchange Format (LDIF) file, modified, then imported to Oracle Internet Directory. The modifications include removing proprietary data and operational attributes, and adding Oracle Internet Directory object classes.

Also, if you have made any modifications to the base schema of iPlanet Directory Server, you may also need to make the same modifications to Oracle Internet Directory. This depends on whether the attributes added to the base schema are also being imported into Oracle Internet Directory.

Step 3 Configure the Synchronization Service Between Oracle Internet Directory and iPlanet Directory Server

The Oracle Directory Integration Platform (DIP) provides the synchronization service between Oracle Internet Directory and iPlanet Directory Server. The synchronization is

done through a user account and configuring the synchronization service involves, among other things, setting the mapping rules and creating an integration profile.

Step 4 Migrate the Calendar Database

Migrating the calendar database involves moving calendar nodes from the Oracle Calendar standalone installation to the Oracle Collaboration Suite installation then reconfiguring the node network to recognize this change.

Upgrading Without Coexistence

This scenario assumes that once the upgrade is complete the user accounts will be managed through Oracle Internet Directory. A detailed procedure is available on Oracle Metalink

<http://metalink.oracle.com/>

The Document ID is 268948.1.

Note: This procedure assumes that you have already upgraded the current Oracle Calendar standalone installation to Oracle Calendar standalone release 2 (9.0.4.2).

Step 1 Install Oracle Collaboration Suite

When you install Oracle Collaboration Suite, use the same node network configuration (nodes and node IDs) as your current Oracle Calendar standalone installation.

Step 2 Migrate the Directory Entries from iPlanet Directory Server to Oracle Internet Directory

The directory entries must be exported from iPlanet Directory Server to an LDIF file, modified, then imported to Oracle Internet Directory. The modifications include removing proprietary data and operational attributes, and adding Oracle Internet Directory object classes.

Also, if you have made any modifications to the base schema of iPlanet Directory Server, you may also need to make the same modifications to Oracle Internet Directory. This depends on whether the attributes added to the base schema are also being imported into Oracle Internet Directory.

Step 3 Migrate the Calendar Database

Migrating the calendar database involves moving calendar nodes from the Oracle Calendar standalone installation to the Oracle Collaboration Suite installation then reconfiguring the node network to recognize this change.

Upgrading from Oracle Calendar Standalone Internal to Oracle Collaboration Suite

This section outlines how to upgrade from Oracle Calendar standalone internal to Oracle Collaboration Suite. A detailed procedure is available on Oracle Metalink

<http://metalink.oracle.com/>

The Document ID is 268949.1.

Step 1 Install Oracle Collaboration Suite

When you install Oracle Collaboration Suite, use the same node network configuration (nodes and node IDs) as your current Oracle Calendar standalone installation.

Step 2 Migrate the User and Resource Entries to Oracle Internet Directory

The user and resource entries must be exported to an LDAP Data Interchange Format (LDIF) file, modified, then imported to Oracle Internet Directory. The modifications include adding Oracle Internet Directory object classes to the entries.

Step 3 Reconfigure the .ini Files

Update the .ini files on the Oracle Collaboration Suite installation so that they match the settings in the Oracle Calendar standalone installation.

Step 4 Migrate the Calendar Database

Migrating the calendar database involves moving calendar nodes from the Oracle Calendar standalone installation to the Oracle Collaboration Suite installation then reconfiguring the node network to recognize this change.

Non Oracle Collaboration Suite Upgrade Instructions

Perform the following if you are installing the Oracle Collaboration Suite, Release 2 middle tier against a non Oracle Collaboration Suite infrastructure, such as Oracle 9iAS infrastructure 9.0.2.0.1, or Oracle9iAS infrastructure 9.0.2.0.0 upgraded to Oracle9iAS infrastructure 9.0.2.3.0.

1. Upgrade Oracle9iAS infrastructure 9.0.2.0.1 or Oracle9iAS infrastructure 9.0.2.0.0 to Oracle9iAS infrastructure 9.0.2.3.0.
2. Apply the Oracle9iAS infrastructure 9.0.2.3 patch 3038037 to the infrastructure.

Note: The patch 3038037 README contains instructions for applying the Oracle9i 9.0.1.4 database server patch 2517300. You must apply patch 2517300 before patch 3038037. Both of these patches are available at:

<http://metalink.oracle.com>

3. Copy the files listed in the following table from the CDRROM_ROOT/tools /upgrade directory on the Oracle9iAS infrastructure installation CD-ROM for Release 2 (9.0.4.1) to the specified target directory in the infrastructure Oracle home directory that you are upgrading:

Table 3-1 Upgrade Files and Target Directories

File	Target Directory
modDirectiveMS.xsd	%ORACLE_HOME%\dcm\config\plugins\apache
opca.jar	%ORACLE_HOME%\sysman\webapps\emd\WEB-INF\lib
portalsMI.jar	%ORACLE_HOME%\sysman\webapps\emd\WEB-INF\lib
repository.jar	%ORACLE_HOME%\jlib
ApacheModuleFastCGI.dll	%ORACLE_HOME%\Apache\Apache\modules
ApacheModuleOSSO.dll	%ORACLE_HOME%\Apache\Apache\modules

Table 3–1 (Cont.) Upgrade Files and Target Directories

File	Target Directory
FastCGI.dll	%ORACLE_HOME%\Apache\fastcgi
FastCGI.lib	%ORACLE_HOME%\Apache\fastcgi
fcgi.jar	%ORACLE_HOME%\Apache\fastcgi

4. Create an orclguest user using Oracle Delegated Administration Services.

Note: You must have sufficient privilege to create new users in the default subscriber.

- a. Log in to Oracle Delegated Administration Services as a user with privilege to create users.
- b. Select the **Directory** tab.
- c. In the **Search Results** section, click **Create**.
- d. Depending on the configuration, the Create User page prompts for different values. The **User Name** value in this case should be orclguest. The rest of the values should be filled in, accordingly. Ensure that all of the required fields are filled in.
- e. Click **Submit**.

Note: Ensure that there is no middle tier installed against this infrastructure.

5. Install the Oracle Collaboration Suite information storage database.

Note: While registering the information storage database, point to the Oracle Internet Directory of the infrastructure upgraded to 9.0.2.3 in Step 1.

6. Install the Oracle Collaboration Suite, Release 2 middle tier.

When installing the Oracle Collaboration Suite Release 2 middle tier against the upgraded Oracle9iAS infrastructure, the Oracle9iAS Wireless configuration assistant will fail during the configuration phase.

Perform the following steps to avoid this failure:

- a. Complete the installation without configuring Oracle9iAS Wireless
 - b. Download patch 3133419 and run the Oracle9iAS Wireless configuration assistant tool as instructed in the patch.
7. Apply the Oracle9iAS Portal patch 2758529 on the middle tier machine. The patch can be downloaded from: <http://metalink.oracle.com/>
 8. Recompile all of the invalid objects.
 9. Re-run the Web Client installer from the command line:

```
$ORACLE_HOME/webclient/bin/webclient_installer.sh OIAdministrator password
```

-complete

- 10.** Complete the Oracle Collaboration Suite, Release 2 middle tier configuration steps.

Oracle Collaboration Suite Deployment Methods

This section describes different methods for deploying the three Oracle Collaboration Suite installations and lists deployment recommendations. It also covers database tuning if you plan to use existing Oracle9i databases with Oracle Collaboration Suite components.

This chapter contains this topic:

- [Oracle9iAS Infrastructure Deployments](#)
- [Oracle Collaboration Suite Information Storage Deployment](#)
- [Oracle Collaboration Suite Middle Tier Deployment](#)
- [Deployment Recommendations and Considerations](#)

Oracle9iAS Infrastructure Deployments

Oracle9iAS Infrastructure deployment typically includes one Oracle9iAS Single Sign-On instance and one Oracle Internet Directory instance in a network, with one or more installations of Oracle Management Server.

To configure Oracle Internet Directory and Oracle9iAS Single Sign-On on separate hosts, perform the following procedures when prompted at the Select Configuration Options screen during installation:

1. Select the configuration of Oracle Internet Directory and deselect the configuration of Oracle9iAS Single Sign-On on the first host, Host 1, during installation.
2. Select configuration of Oracle9iAS Single Sign-On and deselect configuration of Oracle Internet Directory on the second host, Host 2, during installation.
3. Point the Oracle9iAS Single Sign-On configuration on Host 2 to the Oracle Internet Directory configuration on Host 1 during installation.

If you plan to install Oracle Internet Directory on more than one host to form a directory replication network, configure Oracle9iAS Single Sign-On with only one of the Oracle Internet Directory instances. The remaining instances of Oracle Internet Directory must not associate with any Oracle9iAS Single Sign-On configuration.

See Also: *Oracle Internet Directory Administrator's Guide* available on Oracle Technology Network at

<http://otn.oracle.com/>

Oracle Collaboration Suite Information Storage Deployment

Some Oracle Collaboration Suite components that interact with customer data use the information storage database for metadata schema storage. Multiple Oracle Collaboration Suite component installations of the same type can use the same, or different, information storage databases. A single database instance can hold metadata schemas and data for different Oracle Collaboration Suite components.

Oracle Collaboration Suite Middle Tier Deployment

All Oracle Collaboration Suite middle tier installations require Oracle9iAS Infrastructure. You can use the Oracle9iAS Infrastructure included in the Oracle Collaboration Suite CD pack, or you can upgrade an existing Oracle9iAS Infrastructure 9.0.2.0.1 version to use with Oracle Collaboration Suite.

You must have Oracle Internet Directory and Oracle9iAS Single Sign-On installed and configured on your network. Oracle Corporation also recommends a separate Oracle9iAS Metadata Repository for all your middle tier applications.

All Oracle Collaboration Suite middle tier applications can share the same Oracle9iAS Metadata Repository, and typically do not share the same Oracle9iAS Metadata Repository as Oracle Internet Directory.

You can install only one middle tier per host but you can configure multiple instances of the Oracle Collaboration Suite from a single host. Note that Oracle Email should only be configured once on a single host. However, you cannot install the Oracle Collaboration Suite middle tier into an Oracle9iAS Infrastructure Oracle home or an existing Oracle9iAS middle tier Oracle home.

The Oracle Collaboration Suite consists of several middle tier applications, including Oracle9iAS Portal and Oracle Ultra Search. Oracle9iAS Portal and Oracle Ultra Search can connect to either an:

- Oracle9i database
- Oracle9iAS Metadata Repository typically not shared with Oracle Internet Directory

Oracle Ultra Search indexing is automatically stored in an Oracle9iAS Metadata Repository or it can be stored in an Oracle9i database. Store Oracle Ultra Search indexing in an Oracle9iAS Metadata Repository other than the repository used by Oracle Internet Directory.

Oracle Email components must connect to an Oracle9i release 2 (9.2) database in order to store voice mail and faxes in an Oracle Email inbox.

All Oracle Collaboration Suite middle tier applications except Oracle Email, Oracle Files, and Oracle Calendar automatically store their information in an Oracle9iAS Metadata Repository.

Notes:

- The Oracle Collaboration Suite middle tier can be installed as a single instance or as multiple instances on one or many hosts. If you install more than one instance of Oracle Collaboration Suite middle tier on a single host, do not configure Oracle Email or Oracle Calendar more than once.
 - Upgrade of an Oracle9iAS middle tier to this version of Oracle Collaboration Suite is not supported.
-
-

This section contains these topics:

- [Deploying Oracle Calendar](#)
- [Deploying Oracle Email](#)
- [Deploying Oracle Files](#)
- [Deploying Oracle Ultra Search](#)
- [Deploying Oracle Voicemail & Fax](#)
- [Deploying Oracle Web Conferencing](#)
- [Deploying Oracle9iAS Wireless](#)

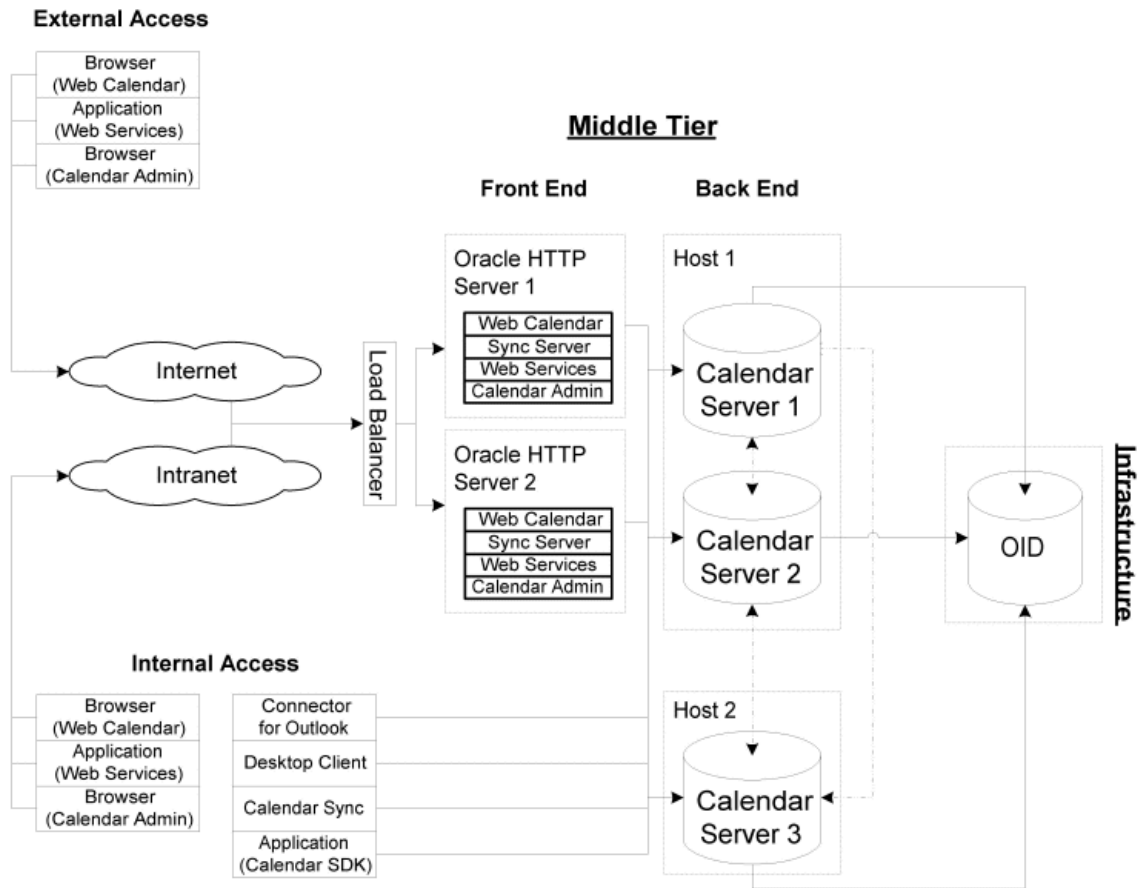
Deploying Oracle Calendar

When Oracle Calendar is installed, many components are installed on the computer. These include Oracle Calendar server components such as engine, daemons, and utilities, and Web components, such as Oracle Calendar Web client, Oracle Calendar Administrator, Oracle Calendar Sync Server, and Oracle Calendar Web services. If more than one instance of Oracle Calendar server is installed on the same computer, redundant copies of some components will exist.

In order to avoid redundancy, it is recommended that the software be distributed on two computers: a front-end server and a back-end server, with the Web applications on the front-end server and the Oracle Calendar server components on the back-end server. This helps eliminate the multiple copies of Web applications and Oracle HTTP Server instances and a load balancing approach can be taken for the Web server by increasing the number of front-end servers, as shown in [Figure 4-1](#).

This configuration also allows you to isolate the back-end server behind a firewall and to set up a DMZ.

Figure 4–1 Oracle Calendar Deployment



Deploying Oracle Email

Review the following considerations before installing the Oracle Collaboration Suite middle tier and configuring Oracle Email:

- Configure only one Oracle Email instance on a single computer.
- Use an Oracle Collaboration Suite information storage database or tune an existing Oracle9i database.

Deploying Oracle Files

Review the following considerations before installing the Oracle Collaboration Suite middle tier and configuring Oracle Files:

- Review "[Verify Requirements and Choose a Deployment Type](#)" on page 4-5.
- Use an Oracle Collaboration Suite information storage database or tune an existing Oracle9i database.

See Also: *Oracle Files Planning Guide* and "Oracle Files Concepts" in *Oracle Files Administrator's Guide* for information on planning your Oracle Files deployment

Verify Requirements and Choose a Deployment Type

Evaluate your hardware resources, using the detailed information regarding Oracle Files hardware and sizing requirements described in the *Oracle Files Planning Guide*, and choose an appropriate deployment path:

- [Multiple Computer Deployment for Production Environments for Oracle Files](#)
- [Single Computer Deployment for Oracle Files](#)

See Also: [Chapter 2, "Preparing for Installation"](#), and the *Oracle Files Planning Guide*

Multiple Computer Deployment for Production Environments for Oracle Files

Oracle Files is designed to run as middle tier, application server software supported by Oracle Collaboration Suite. For optimal performance, run the database on one computer, Oracle Files on another computer, and the Oracle9iAS Infrastructure on a third computer.

A component of Oracle9iAS Infrastructure, Oracle Internet Directory, is required for managing Oracle Files user credentials.

Single Computer Deployment for Oracle Files

Oracle Files and all of its required components can be installed on a single computer if the computer meets all hardware and software requirements listed in the *Oracle Files Planning Guide*. To install and deploy Oracle Files:

1. Install and configure Oracle Internet Directory, a part of Oracle9iAS Infrastructure, into one Oracle home.
2. Install and configure Oracle Collaboration Suite Information Storage into a different Oracle home.
3. Install the Oracle Collaboration Suite middle tier and configure Oracle Files into a third Oracle home.
4. Use the Oracle Files configuration assistant to configure Oracle Files by following the instructions in [Chapter 12, "Configuring Oracle Files"](#).

Deploying Oracle Ultra Search

Oracle Ultra Search requires Oracle Text. Oracle Text is installed with the Oracle9iAS Infrastructure and Oracle Collaboration Suite information storage installations. If you are using an existing Oracle9i database, ensure that Oracle Text is installed and configured.

Oracle Corporation recommends installing and configuring a separate Oracle9iAS Metadata Repository if you plan to use the Oracle Ultra Search indexing feature. Oracle Ultra Search indexing is automatically stored in the Oracle9iAS Metadata Repository. Store Oracle Ultra Search indexing in an Oracle9iAS Metadata Repository other than the repository used by Oracle Internet Directory.

Review the following considerations before installing the Oracle Collaboration Suite middle tier and configuring Oracle Ultra Search:

- [Sufficient RAM](#)
- [Sufficient Disk Space](#)
- [Software Requirements](#)

- [Performance Factors and Sizing Guidelines](#)

Sufficient RAM

The Ultra Search indexing engine runs within Oracle. Therefore, it is important that the system has enough memory to accommodate a large Oracle installation. The Oracle instance system global area must be a minimum of 50 MB.

See Also: *Oracle9i Database Performance Tuning Guide and Reference*

The Ultra Search Web crawler runs as a separate Java process on the same host. Allocate 50 MB of memory for the Web crawler alone.

The Ultra Search administration tool is a J2EE 1.2 standard Web application. It can be installed and run on a separate host from the Ultra Search server component. However, running this component on the same host as the Ultra Search server component may limit scalability. Regardless of your choice, allocate enough memory for the J2EE engine. Oracle Corporation recommends using the Oracle HTTP server with the Oracle9iAS Containers for J2EE. Allocate enough memory for the Oracle HTTP server and the JDK that runs the J2EE engine.

Sufficient Disk Space

Because customer requirements vary widely, Oracle cannot recommend a specific amount of disk space. The following minimal requirements are meant as general guidelines:

- Allocate the same amount of disk space as needed to install the Ultra Search server component for each remote crawler host.
- Create a temporary tablespace as large as available, depending on the RAM on your host.
- Create the tablespace for the Ultra Search instance user as large as the total amount of data that you want to index. For example, if you estimate that the total amount of data to be crawled and indexed is 10 GB, then create a tablespace that is at least 10 GB for the Ultra Search instance user. Make sure to assign that tablespace as the default tablespace of the Ultra Search instance user.

Note: The Ultra Search instance user is a database user that you must explicitly create. All data that is collected and processed as part of the crawling and indexing process is stored in this user's schema.

Software Requirements

The Ultra Search middle tier components are Web applications. Therefore, they require a Web server to run. Oracle Corporation recommends the Oracle HTTP Server and Jserv or Oracle HTTP Server and the Oracle9iAS Containers for J2EE.

Performance Factors and Sizing Guidelines

This section describes the hardware required for Oracle Ultra Search to provide uniform search capabilities across the repositories of typical small, medium, and large organizations.

Crawling and indexing performance depends on the number of documents to search, average size of documents, the kinds of documents (whether or not these documents require conversion from a native format through INSO), and other factors.

Note: The actual data collected due to crawling and indexing is not stored in the user's schema. However, tokens from the data are stored.

Query performance depends on the number of users querying in consecutive, simultaneous fashion within a given, small time period, say 15 minutes. Query performance also depends on the data set size and computer resources (CPUs/memory).

Small, medium, and large corporations are defined in [Table 4-1](#):

Table 4-1 Performance Factors for Small, Medium, and Large Corporations

Performance Factors	Small	Medium	Large
Number of Documents on Corporate Intranet	50000	500000	2500000
Average Size of Document (KB)	50	50	50
Concurrent Search Users	<10	<10	<10

Sample hardware configurations for small, medium, and large corporations are given in [Table 4-2](#):

Table 4-2 Sizing Guidelines for Small, Medium, and Large Corporations

Tier	Small	Medium	Large
Database (Oracle9iAS Metadata Repository or Oracle9i database release 1 (9.0.1) or later)	One SUN Ultra 60 with 2 GB RAM	SUN Enterprise 450 (or equivalent) with 4 CPUs 2 GB RAM 10-15 GB free disk space	HP-UX PA-RISC (64-bit) Superdome with 16 CPU 48 GB RAM 500 GB free disk
Oracle Collaboration Suite Middle Tier	10 GB free disk space	Windows 2000 Server with 2 GB RAM each	Windows 2000 Server with 2 GB RAM each

Note: For small configurations, both the database tier and Oracle Collaboration Suite middle tier are installed on the same computer. The hard disk space requirements mentioned do not include the space required to install the software. See "[Hardware Requirements](#)" on page 2-1 for hard disk space requirements.

Deploying Oracle Voicemail & Fax

Oracle Voicemail & Fax requires a Windows 2000 Computer Telephony (CT) Server for telephony services.

See Also: *Oracle Voicemail & Fax Administrator's Guide* for hardware and software requirements and installation instructions

Deploying Oracle Web Conferencing

Oracle Web Conferencing delivers its end-user functionality as a middle tier application within Oracle Collaboration Suite. Oracle Web Conferencing is the current offering from the Oracle Real-Time Collaboration group of products.

To plan Oracle Web Conferencing deployment:

- Review the Oracle Web Conferencing related sections of this guide
- Review the *Oracle Web Conferencing Administrator's Guide*
- For the latest information, workaround, and tips, go to

<http://otn.oracle.com/>

Oracle Collaboration Suite requires the use of a compatible version of Oracle9iAS Single Sign-On server, and must be associated with Oracle Internet Directory. These are available from the Oracle9iAS Infrastructure.

Oracle Web Conferencing requires the use of a Oracle9i database release 9.2, or later. You can choose to use the Oracle Collaboration Suite information storage database you may already have installed for other Oracle Collaboration Suite components, such as Oracle Files, or you can provide connection information to an appropriate separate database during installation of the middle tier. If you plan to use a database different from the Oracle Collaboration Suite information storage database, ensure you have verified the tablespace-related requirements for Oracle Web Conferencing from this guide.

Oracle Web Conferencing has higher processing power consumption in order to deliver real-time collaboration. Depending on the deployment configurations you are using, you might have to reconfigure the Oracle HTTP Server and `mod_osso` configurations for the `$ORACLE_HOME` in which Oracle Web Conferencing is to be installed. Therefore, Oracle Corporation recommends that Oracle Web Conferencing is installed in its own `$ORACLE_HOME`, apart from any other Oracle Collaboration Suite component products.

If you have multiple middle tier hosts for your Oracle Collaboration Suite implementation, set up Oracle Web Conferencing on the host which can provide the highest possible memory and CPU resources to Oracle Web Conferencing alone, and which has the largest bandwidth network connection to end-users.

Oracle Web Conferencing can be deployed on as many middle tiers as you choose. Each instance of Oracle Web Conferencing is configured by default to cooperate with all Oracle Web Conferencing middle tiers using the same database.

Oracle Web Conferencing can be installed and configured with other Oracle Collaboration Suite components in the same `$ORACLE_HOME`.

Oracle Web Conferencing core components can also be configured where the entire Oracle Collaboration Suite, including the infrastructure, information store, and all the middle tier Oracle homes, exist on the same host, as long as the host satisfies all the requirements listed in this guide and relevant documentation for Oracle Collaboration Suite components.

Note: An instance of Oracle Web Conferencing with a document conversion server and a voice conversion server requires a computer with Microsoft Windows 2000 installed. The functionality provided by this type of Oracle Web Conferencing instance might not be available if your deployment does not include a document conversion server or voice conversion server, but the core functionality of Oracle Web Conferencing is still available.

Deploying Oracle9iAS Wireless

If you are installing the Oracle9iAS Wireless component of Oracle Collaboration Suite against an existing Oracle9iAS Infrastructure 9.0.2.0.0 or 9.0.2.0.1, the Oracle9iAS Wireless schema in the Oracle9iAS Metadata Repository is automatically upgraded. If you have existing Oracle9iAS Wireless middle tiers, versions 9.0.2.6.0 or lower, pointing to the same Oracle9iAS Infrastructure, you must apply the Oracle9iAS Wireless 9.0.2.8.0 patch to each of the Oracle9iAS Wireless middle tiers. This patch is available on Oracle*MetaLink* at

<http://metalink.oracle.com/>

If you are installing the Oracle9iAS Wireless middle tier from the Oracle Collaboration Suite CD Pack, no upgrade is required.

High Availability for Oracle9iAS Wireless

In Oracle9iAS Wireless, applications cannot be clustered using the Oracle9iAS clustering mechanism. However, it is still possible to configure Oracle9iAS to achieve a high availability deployment.

Complete the following steps for high availability deployment:

Note: Back up all files before modifying them.

1. Install the Oracle9iAS infrastructure on a computer, and install multiple middle tiers on separate computers. Ensure that each of these middle-tier installations points to the infrastructure.
2. Shut down the Distributed Configuration Manager and all process using the following command:


```
$ORACLE_HOME/dcm/bin/dcmctl stop
```
3. Shut down Oracle Enterprise Manager using following the command:


```
$ORACLE_HOME/bin/emctl stop
```
4. Verify that the `$ORACLE_HOME/opmn/conf/ons.conf` file on each of the middle tiers and on the infrastructure contains IP address entries for all the other tiers. If not, file and add missing IP address entries.
5. On each middle tier, increase the number of processes that need to participate in the default island for the `OC4J_Wireless OC4J` instance to the desired number. This can be done from the Oracle Enterprise Manager console or by modifying the `$ORACLE_HOME/opmn/conf/opmn.xml` file.

See Also: Oracle9iAS Containers for J2EE documentation for details and concepts of OC4J instance and islands

For instance, if you modify `opmn.xml`, a typical entry to start four OC4J processes in the default island would be of the form:

```
<oc4j maxRetry="3" instanceName="OC4J_Wireless" gid="OC4J_Wireless"
numProcs="4">
```

6. In the `mod_oc4j` configuration file for each middle tier (specifically, `$ORACLE_HOME/Apache/Apache/conf/mod_oc4j.conf`), modify the mount point entries for the Oracle9iAS Wireless runtime. If two middle tiers (m1 and m2, in the following examples) are used, modify the entries, as follows:

```
Oc4jMount /ptg
instance://m1.c1.mysite.com:OC4J_Wireless,m2.c2.se4637-u-sr006.us.oracle.com
:OC4J_Wireless
```

and

```
Oc4jMount /ptg/*
instance://m1.c1.mysite.com:OC4J_Wireless,m2.c2.se4637-u-sr006.us.oracle.com
:OC 4J_Wireless
```

where `c1` and `c2` are the respective Oracle9iAS instance names and can be determined by running the command:

```
$ORACLE_HOME/dcm/bin/dcmctl whichInstance
```

These entries should be exactly the same for all middle-tier computers.

7. Run `$ORACLE_HOME/dcm/bin/dcmctl updateConfig` to update the Distributed Configuration Manager repository with the configuration file changes.

On slower systems, it is likely that a Distributed Configuration Manager error (timeout) of the form ADMN-906005 is displayed. If this occurs, run the `$ORACLE_HOME/dcm/bin/dcmctl getReturnStatus` command and wait until the command exits. This confirms that the changes have been propagated to the Distributed Configuration Manager repository.

8. Add a `<cluster-config/>` tag under the `<orion-web-app>` tag in the following file:

```
$ORACLE_HOME/j2ee/OC4J_wireless/application-deployments/ptg/ptg-web
/orion-web.xml
```

9. Start the Distributed Configuration Manager and all processes by running the following command:

```
$ORACLE_HOME/dcm/bin/dcmctl start
```

10. Start Oracle Enterprise Manager by running the following command:

```
$ORACLE_HOME/bin/emctl start
```

11. Configure a hardware load-balancer to point to the middle tiers.

Currently, high availability support is only available for the core server runtime (by default mapped to the URI `/ptg/rm`).

See Also: Oracle9iAS Containers for J2EE documentation for more information

Deployment Recommendations and Considerations

Oracle Corporation recommends:

- Installing the three Oracle Collaboration Suite installations in different Oracle homes in the following order:
 - Oracle9iAS Infrastructure
 - Oracle Collaboration Suite information storage
 - Oracle Collaboration Suite
- Installing Oracle Collaboration Suite and Oracle9iAS Infrastructure on separate hosts for optimal performance
- Installing Oracle Collaboration Suite and Oracle Collaboration Suite information storage on separate hosts
- Using the same operating system user account when installing and configuring additional Oracle Collaboration Suite applications on the same host

You can achieve optimal performance for extensively-used components by connecting to an Oracle9iAS Metadata Repository located on a separate host. The following procedure describes how to assign a component to its own repository.

1. Install Oracle9iAS Infrastructure for Oracle Internet Directory and Oracle9iAS Single Sign-On support (and optionally for Oracle Management Server support).
2. Install the Oracle Collaboration Suite, which includes the middle tier applications.
3. Install a second Oracle9iAS Infrastructure without configuring Oracle Internet Directory or Oracle9iAS Single Sign-On.
4. Browse to the Oracle Enterprise Manager Web Site for this instance of Oracle Collaboration Suite and go to the Oracle9iAS Instance Home Page.
5. Select **Configure Schema**.

From the Configure Schema page, you can change the database and schema for the selected application.

See Also: The online help topic "Configuring the Schema for an Oracle9iAS Component" in the Enterprise Manager Web Site online help for additional information about performing this task

Getting Started with Installation

This chapter describes how to get started with the three Oracle Collaboration Suite installations. You must follow the procedures in this chapter to ensure that the installation process is successful.

This chapter contains these topics:

- [Installing Oracle Components from the CD-ROMs](#)
- [Installing Oracle Components from a Hard Drive](#)
- [Oracle Universal Installer Overview](#)
- [Starting Oracle Universal Installer](#)

Installing Oracle Components from the CD-ROMs

Oracle Collaboration Suite includes CD-ROMs for installing the following products:

- Oracle9iAS Infrastructure
- Oracle Collaboration Suite information storage
- Oracle Collaboration Suite
- Oracle Collaboration Suite Clients

The Oracle CD-ROMs are in ISO 9660 format with Rockridge extensions. You can either choose to install directly from the CD-ROMs, or copy the CD-ROM contents and then install from your system hard drive. You must complete the procedures required for the installation method you choose before starting Oracle Universal Installer.

For operating systems that do not support automatic mounting of CD-ROMs, the CD-ROMs must be mounted manually. You must have `root` privileges to mount or unmount a CD-ROM. Be sure to unmount a CD-ROM before removing it from the drive.

Mount Disk 1 to begin the installation. Mount the subsequent disk or disks when prompted. Follow these steps to mount the Oracle CD-ROM manually:

1. Place Disk 1 in the CD-ROM drive.
2. Log in as the `root` user and create a CD-ROM mount point directory, if one does not already exist, by using the following commands:

```
$ su root
# mkdir cdrom_mount_point_directory
```

3. Use the following command to determine the device name:

```
$ lsdev -Cc cdrom
```

The output should be similar to the following:

```
cd0 Available 10-60-00-4, 0 SCSI Multimedia CD-ROM Drive
```

4. Mount the CD-ROM drive on the mount point directory, then exit the root account by using the following commands:

```
# mount options device_name cdrom_mount_point_directory
# exit
```

Example 5-1 Mounting the AIX CD-ROM Manually

```
$ su root
# mkdir /cdrom
# mount -rv cdrfs /dev/cd0 /cdrom
# exit
```

In the preceding example, `/dev/cd0` is the CD-ROM device.

Installing Oracle Components from a Hard Drive

You can avoid the need to mount and unmount CD-ROMs during installation by copying the contents of each CD-ROM to your system hard drive. You must have a file system that is not in use by other applications and enough disk space available.

1. Copy each CD-ROM to your system hard drive under a directory named `Disk1` for the first CD-ROM, a directory named `Disk2` for the second CD-ROM, and so on (depending upon the number of the CD-ROM in the sequence of disks that comprises the set).
2. Start Oracle Universal Installer. Oracle Universal Installer automatically finds the contents of each CD-ROM and does not prompt for the location of any CD-ROM during the course of the installation.

See Also:

- ["Hardware Requirements"](#) on page 2-1 for hard disk requirements for your platform
- ["Installing Oracle Components from the CD-ROMs"](#) on page 5-1 for instructions on mounting and unmounting CD-ROMs

Oracle Universal Installer Overview

Oracle Collaboration Suite uses Oracle Universal Installer to guide you through each step of the installation process. Oracle Universal Installer provides the following features:

- Describes installation options for Oracle Collaboration Suite
- Detects preset environment variables and configuration settings
- Sets environment variables and configuration during installation
- Deinstalls Oracle Collaboration Suite products

This section describes the following Oracle Universal Installer features:

- [Oracle Universal Installer Prerequisite Checks](#)
- [oraInventory Directory and Installation Session Log Files](#)

- [Additional Component Installations with Oracle Universal Installer](#)

Oracle Universal Installer Prerequisite Checks

Oracle Universal Installer automatically checks your computer prior to installation to verify that your system meets operational requirements. [Table 5-1](#) lists the prerequisite checks that are performed.

Table 5-1 Oracle Universal Installer *Automatic Prerequisite Checks*

Prerequisite Checks	See Also
Check for enough disk space for Oracle home installation	"Hardware Requirements" on page 2-1
Check for sufficient <code>/var/tmp</code> space and sufficient swap space	"Hardware Requirements" on page 2-1
Check that the install host has enough RAM	"Hardware Requirements" on page 2-1
For middle tier and information storage installs, verify existence of one Oracle <i>9i</i> AS Infrastructure installation	Chapter 1, "Installation Overview"
Check the <code>/etc/hosts</code> file	"Hostnames File Configuration" on page 2-8
Check for AIX-based systems	"Operating System Versions" on page 2-2
Verify the monitor has 256 color viewing capability	"Hardware Requirements" on page 2-1
Verify installation of correct AIX kernel patches	"Determining Random Access Memory" on page 2-2
Verify operational requirements of the CPU	"Hardware Requirements" on page 2-1

See Also: [Appendix B, "Installation Checklists"](#) for the installation checklists for each installation of Oracle Collaboration Suite

oraInventory Directory and Installation Session Log Files

Oracle Universal Installer creates the `oraInventory` directory the first time it is run on a computer. The `oraInventory` directory keeps an inventory of products that Oracle Universal Installer installs on your computer, as well as other installation information. If you have previously installed Oracle products, then you may already have an `oraInventory` directory.

The UNIX group that owns Oracle Universal Installer must have permission to write to the `oraInventory` directory. Attempts to run Oracle Universal Installer without this permission fails. For more information, see ["UNIX Group Name for the Oracle Universal Installer Inventory"](#) on page 2-9.

The location of `oraInventory` is defined in the `oraInst.loc` file, which is located in the `/etc` directory.

The log file of the most recent installation is:

```
/your_base_directory/oraInventory/logs/installActionstodays_date_time.log
```

where `your_base_directory` identifier is the location for your installation files and `todays_date_time` is the date and time of installation.

Do not delete or manually alter the `oraInventory` directory or its contents. Doing so can prevent Oracle Universal Installer from locating products that you have installed on your system.

Note: The `make.log` file in the `$ORACLE_HOME/install` directory contains a log of every make file action executed during the installation process. The `make.log` file also records any link errors during installation. Do not delete or alter the `make.log` file.

Additional Component Installations with Oracle Universal Installer

When you are planning to install a subsequent Oracle Collaboration Suite or Oracle9iAS Infrastructure installation on the same host, Oracle Corporation recommends the following steps:

- Review [Chapter 2, "Preparing for Installation"](#) for preinstallation tasks.
- Do not delete or modify the `/etc` directory for subsequent Oracle Collaboration Suite installations.
- Stop the Oracle Enterprise Manager Web site. For more information, see the *Oracle9i Application Server Administrator's Guide*.
- Ensure that all other previously installed Oracle Collaboration Suite instances are running when you begin installation.
- Specify a different Oracle home than the first Oracle Collaboration Suite installation.
- Use the same `oraInventory` directory for subsequent Oracle Collaboration Suite installations.
- Review [Chapter 4, "Oracle Collaboration Suite Deployment Methods"](#) in this guide to ensure successful coexistence of Oracle Collaboration Suite components.

See Also: ["oraInventory Directory and Installation Session Log Files"](#) on page 5-3

Starting Oracle Universal Installer

Caution: Oracle Universal Installer automatically installs the Oracle-supplied version of the Java Runtime Environment (JRE). This version is required to run Oracle Universal Installer and several Oracle assistants. Do *not* modify the JRE except by using a patch provided by Oracle Support Services.

Oracle Universal Installer prompts for the downloaded/installed location of JDK 1.3.1.

See Also: The Oracle Universal Installer online help if you have questions about the type of information to enter during the installation procedures described in this section

Follow these steps to start Oracle Universal Installer and each Oracle Collaboration Suite installation:

1. Ensure that you have completed all the requirements described in [Chapter 2, "Preparing for Installation"](#).
2. Print and complete the installation checklists in [Appendix B, "Installation Checklists"](#) for each installation. Many of the values are needed to complete the other installations and configurations.
3. Log in as the `oracle` user.

Notes:

- Ensure that you are not logged in as the `root` user when you start Oracle Universal Installer. If you are, then only the `root` user has permissions to manage Oracle Collaboration Suite.
 - Do not use `cd_mount_point` as your working directory when you start Oracle Universal Installer. If you do, then you cannot eject the first CD-ROM during the installation step to insert the second CD-ROM.
 - Oracle Corporation recommends using the same operating system user account when installing and configuring additional Oracle Collaboration Suite applications on the same host.
-
-

4. Insert the first CD-ROM of the appropriate installation into the CD-ROM drive.
5. Mount the installation CD-ROM as described in ["Installing Oracle Components from the CD-ROMs"](#) on page 5-1 for your operating system.
6. Run one of the `runInstaller` commands listed in the following table, depending on the product you are installing. Be sure to run the command from a directory other than `$cd_mount_point_directory`.

To install this product...	Enter this command...
Oracle <i>9i</i> AS Infrastructure	<code>\$cd_mount_point_directory/ocs_infr_cd1/runInstaller</code>
Oracle Collaboration Suite	<code>\$cd_mount_point_directory/ocs_mt_cd1/runInstaller</code>
Oracle Collaboration Suite information storage	<code>\$cd_mount_point_directory/ocs_stor_cd1/runInstaller</code>
Oracle Collaboration Suite Client	<code>\$cd_mount_point_directory/ocs_clients/runInstaller</code>

7. The Welcome screen displays. Click **Next** to display the Specify Inventory Location screen.

Note: If you install Oracle Collaboration Suite information storage on a cluster, the Cluster Node Selection screen appears. Select the nodes on which you want to install the Oracle software. Real Application Clusters software is installed on the node from which Oracle Universal Installer is run and copied to the other selected nodes in the cluster. The local node is always selected by default.

Do not install Oracle*9i*AS Infrastructure or Oracle Collaboration Suite on a cluster. Only Oracle Collaboration Suite Information Storage can be installed on a cluster.

See Also: *Oracle9i Real Application Clusters Setup and Configuration* for more information about installing Real Application Clusters (available on the Oracle Technology Network)

Note: If an `oraInst.loc` file exists, steps 8 through 11 will not display.

8. Confirm the inventory directory path for your installation or click **Browse** to reset. Click **OK** to display the UNIX Group Name screen.
9. Enter DBA or use the `oinstall` group name and click **Next**. Review "[UNIX Group Name for the Oracle Universal Installer Inventory](#)" on page 2-9 if you are not sure what group to specify as owner of `oraInventory` files.

See Also: [Environment Preinstallation Tasks in Chapter 2, "Preparing for Installation"](#), for more information about creating group names

10. If this is your first Oracle installation, you will be prompted to open a new terminal window as `root` and run `oraInstRoot.sh` from the directory specified in the dialog box.
11. When `oraInstRoot.sh` completes, return to the Oracle Universal Installer and click **Continue** to display the Specify File Locations screen.
12. On the Specify File Locations screen:
 - In the **Source** section, accept the default path
 - In the **Destinations** section, enter the **Name** and the full **Path** of the Oracle home
13. Click **Next** to display the Language Selection screen.
14. Select from the list languages supported by Oracle Collaboration Suite any languages you want supported by your installation of Oracle Collaboration Suite. Click **Next**.

Notes:

- Languages selected here enable users to access your installation of Oracle Collaboration Suite in their native language, provided that language is supported by Oracle Collaboration Suite.
 - Supported languages cannot be added after the installation is complete. In order to add other languages, you must completely reinstall Oracle Collaboration Suite.
-
-

15. Proceed to [Chapter 6, "Installing Oracle Collaboration Suite"](#).

Installing Oracle Collaboration Suite

This chapter guides you through the installation steps for Oracle Collaboration Suite Release 2 (9.0.4.1).

See Also: ["Installation Roadmap"](#) on page 1-5 for details about the installation sequence

This chapter contains the following topics:

- [Installing Oracle9iAS Infrastructure](#)
- [Installing Oracle Collaboration Suite Information Storage Database](#)
- [Installing the Oracle Collaboration Suite Middle Tier](#)
- [Installing the Oracle Web Conferencing Document and Voice Conversion Servers](#)
- [Installing Oracle Collaboration Suite Integrated Web Client](#)
- [Manually Setting Up HTTPS with mod_osso on the Middle Tier](#)
- [Additional Documentation](#)

Installing Oracle9iAS Infrastructure

This section describes how to install Oracle9iAS Infrastructure.

Note: The industry standard LDAP ports are 389 for non-SSL and 636 for SSL. If these ports are not listed in your `/etc/services` file, then the Oracle Universal Installer uses them as the Oracle Internet Directory ports. If these ports are listed in your `/etc/services` file, then the Oracle Universal Installer consecutively tries ports 4031 through 4039 as the Oracle Internet Directory ports.

To use the standard ports 389 or 636, you must delete the lines with these port number from your `/etc/services` file before you start configuration. It is not sufficient to comment out these lines: they must be deleted.

If you currently have an LDAP server running on ports 389 or 636, shut down the server before configuring.

The Confirm Pre-Installation Requirements screen appears after you click **Next** on the Language Selection screen at step 14 on page 5-6:

1. Click **Next** to display the Select Configuration Options screen.
2. Select **accept default selection** and click **Next** to display the Create Instance Name and `ias_admin` Password screen.
3. Choose an **Instance Name** and choose and confirm an **ias_admin Password**.

Notes:

- The **Instance Name** is not a database instance name but a name for the Oracle9iAS infrastructure instance.
 - The **ias_admin password** chosen here will also be the Oracle Internet Directory administrator's password for the infrastructure.
-

Click **Next** to display the Guest Account Password screen.

4. Enter and confirm a guest account password.
5. Click **Next**. If you are a member of the DBA group, the Summary screen displays. Proceed to step 8.

If you are not a member of the DBA group, the Privileged Operating System Groups screen displays.

6. Enter **Database Administrator (OSDBA) Group** and **Database Operator (OSOPER) Group** names.
7. Click **Next** to display the Summary screen.
8. Review the information and click **Install**. The location of the log files for the installation displays.

After you click **Install**, files are copied and linked. This process can run for more than an hour.

9. As prompted, run `root .sh`. You must do this as `root` from another terminal window. When `root .sh` completes, return to the Oracle Universal Installer and click **OK** to display the Configuration Assistants screen.

Review the status of the Oracle9iAS Infrastructure configuration tools.

The Oracle Universal Installer executes a configuration assistant for each component selected previously in the Select Configuration Options screen.

10. The End Of Installation screen displays the port numbers for installation and confirms success.
11. Check the installation log files for any installation errors. The installation log files are located in the `oraInventory` directory, as explained in "[oraInventory Directory and Installation Session Log Files](#)" on page 5-3. The default installation log file directory is `orInventory_directory/logs`.

Each installation log takes the form `InstallActionsYYYY-MM-DD_HH-MM-SSAM.log`.

Notes:

- In the `/tmp` directory, the format of the directory is as follows: `OraInstallYYYY-MM-DD_HH-MM-SSAM.log`. The `installCluster.log` file shows which installation module is currently running.
 - The list of ports can be found in the `portlist.ini` file located in the `$ORACLE_HOME/install` directory.
-
-

Oracle9iAS Infrastructure Additional Documentation

For further information about postinstallation and configuration tasks, refer to the *Oracle9i Application Server Administrator's Guide* and component-specific documentation.

Installing Oracle Collaboration Suite Information Storage Database

This section describes how to install Oracle Collaboration Suite information storage database.

This section contains these topics:

- [Installing a Database into an Existing Oracle Home](#)
- [Registering Oracle Collaboration Suite Information Storage with Oracle Internet Directory](#)

Ensure that you have already installed the infrastructure.

The Database Creation screen appears after you click **Next** on the File Locations screen in step 14 on page 5-6. Follow these procedures to install an information storage database.

1. Select **Yes** to create a new Oracle9i database and click **Next** to display the Information Storage Registration screen.
2. Enter the fully-qualified **Host** name, **Port**, **Username** (by default, the Oracle Universal Installer displays `cn=orcladmin`), and **Password**. Click **Next** to display the Database Identification screen.
3. Enter the **Global Database Name** and **SID**. If required, change the default SID.
4. Click **Next** to display the Database File Location screen.
5. Accept the default and click **Next** to display the Summary screen.
6. Review and change any entries, if necessary. Click **Install** to accept the entries and begin the installation.

Note: After you click **Install**, files are copied and linked. This process can run for more than an hour.

7. When prompted, run `root.sh` from the `root` account in another terminal window. Progress screens display while `root.sh` is running, charting the installation progress.
8. When `root.sh` completes, return to the Oracle Universal Installer and click **Next** to display the Configuration Assistants screen.

9. When the database configuration assistant prompts you, choose and confirm the `SYS` and `SYSTEM` account passwords. Click **OK**.
10. When the End of Installation screen displays, click **Exit**.

Installing a Database into an Existing Oracle Home

You can install more than one database in the same Oracle home.

Install a starter database or select the **Software Only** database configuration option when prompted from one of the following software CD-ROMs:

- Oracle Collaboration Suite information storage
- Oracle9i Database

Important: Oracle Corporation does not recommend installing more than one database in an Oracle home in a production environment. This configuration is recommended for evaluation purposes only.

1. Run the database configuration assistant after the software is installed.
`$ORACLE_HOME/bin/dbca`
2. Select **Create a new database**.
3. Click **Next**.
4. Select the database configuration type that you want to create when prompted.
5. Answer questions such as Oracle home name and instance name.

The database is created by the database configuration assistant in the same manner that it is created by Oracle Universal Installer.

Registering Oracle Collaboration Suite Information Storage with Oracle Internet Directory

The following sections describe how to register the information storage database with Oracle Internet Directory:

- [Running the Oracle Net Configuration Assistant](#)
- [Running Database Configuration Assistant](#)
- [Verifying Oracle Internet Directory Configuration](#)

Notes:

- This section applies only if you selected **No** in the Information Storage Registration screen.
 - If your information storage is on a cluster database, then register one database instance with Oracle Internet Directory.
 - You must run both Oracle Net Configuration Assistant and Database Configuration Assistant with the same Oracle user account used to install the Oracle software.
-
-

Running the Oracle Net Configuration Assistant

1. Start the Oracle Net configuration assistant:

```
$ORACLE_HOME/bin/netca
```
2. The Welcome screen appears.
3. Select **Directory Usage Configuration** and click **Next**.
4. Select the directory server you want to use. The directory server must already be configured for Oracle usage.
5. Click **Next**.
6. Select **Oracle Internet Directory** as the directory server type you want to use.
7. Click **Next**.
8. Enter the Oracle Internet Directory **host name**, **port**, and SSL port.
9. Click **Next**.
10. Select **cn=OracleContext** as the default Oracle Context in the directory server.

Note: Do not choose **cn=OracleContext,subscriber_specific_DN**.

11. Click **Next**.
12. Proceed to the end of the Oracle Net configuration assistant configuration.
 This creates an `ldap.ora` file that specifies the Oracle Internet Directory server and port number in the `$ORACLE_HOME/network/admin` directory.
13. Exit the Oracle Net configuration assistant.

Additional Configuration Steps for Real Application Clusters

Use Oracle Net Manager to either:

- Add network addresses to the database entry for the nodes in the cluster for which there is no address listed.
- Create a separate net service name specifying the network address for one of the nodes in the cluster and the Real Application Clusters global database name as the service name of the database. Then add network address to the net service name for the other nodes in the cluster.

See Also: *Oracle9i Real Application Clusters Setup and Configuration* and the for more information about connect string options

Running Database Configuration Assistant

1. Start Database Configuration Assistant:

```
$ORACLE_HOME/bin/dbca
```
2. Click **Next**.
3. Select **Configure database options in a database**.
4. Click **Next**.
5. Select the SID of the Oracle Email database to configure.
6. Click **Next**.

Note: If the SID does not appear, check the `oratab` file in the `/etc/oratab` directory.

7. Select the **Yes, register the database** option.
 - a. Enter `cn=orcladmin` in the **User DN** field.
 - b. Enter the password for the name entered in the **User DN** field.
8. Click **Finish**.

The Restart Database screen appears.
9. Click **Yes**.

The Summary screen appears.
10. Click **OK**.

The progress of database configuration displays in the Database Configuration Assistant screen.
11. Exit Database Configuration Assistant when configuration completes.

Verifying Oracle Internet Directory Configuration

1. Run `oidadmin`.
2. Log in to Oracle Internet Directory and check under `cn=oraclecontext` for the information storage SID selected in step 4 on page 6-5.

Installing the Oracle Collaboration Suite Middle Tier

This section follows the sequence of steps performed by the Oracle Universal Installer to install the middle tier and assumes that all Oracle Collaboration Suite components are being installed.

This section contains the following topics:

- [Before You Begin](#)
- [Beginning Oracle Collaboration Suite Middle Tier Installation](#)
- [Installing Oracle Web Conferencing](#)
- [Installing the Oracle Calendar Server and the Oracle Calendar Application System](#)
- [Configuring Oracle Files](#)
- [Completing the Middle Tier Installation](#)

Before You Begin

- Ensure that you have installed and configured Oracle Internet Directory and Oracle*9i*AS Single Sign-On somewhere in your network before installing an instance of the Oracle Collaboration Suite middle tier.
- Ensure that you have installed and configured an Oracle*9i* database or the Oracle Collaboration Suite information storage database somewhere in your network if you are configuring Oracle Email or Oracle Files in this application middle tier instance.

Note: If you installed the Oracle Collaboration Suite information storage database, it is automatically registered with Oracle Internet Directory. If you installed an Oracle9i database, you must manually register it with Oracle Internet Directory.

- Have the database host name, database listener port, and the SID for the database instance in which you will have the Oracle Real-Time Collaboration repository. Verify that you can connect to the database using the above information from the host on which you are installing this instance of Oracle Web Conferencing.
- Have the username and password for a user with system privileges, such as privileges for creation of users and tablespaces. The installer defaults to user `SYSTEM`, and if you plan to use the default, you must have the `SYSTEM` password.
- The Oracle Universal Installer detects whether the database you are using already contains the Oracle Real-Time Collaboration repository. If the installer does not find one, then a new one is created in the given database. If this happens, you must enter the full path to the directory on the above database host where the data files for the Oracle Real-Time Collaboration tablespaces will be created during the installation. This location must have at least 500 MB of free space and be writable by the database.

Caution: If the information entered here is incorrect, you will not be able to recover from installation failure, and you will have to restart the entire installation process for this Oracle home.

The tablespace picks up the default value in step 3.

- If the database already contains the Oracle Real-Time Collaboration repository and if the installer detects the schemas to be locked, you are prompted for new passwords for the `RTC` and `RTC_APP` schemas. If the schemas are not locked, the installer prompts you for the existing `RTC_APP` schema password.
- The installer tries to find free ports for use by the Oracle Real-Time Collaboration components in the range of 2400-2700. If it does not find any free ports in this range, the installer extends its search to range 2400-49152 and picks up the first available ports it can find. The installer warns you when this happens.

Note: The Oracle Calendar server will not work if it is installed by a user whose UNIX user ID is greater than eight characters.

Beginning Oracle Collaboration Suite Middle Tier Installation

To start the Oracle Universal Installer, see "[Starting Oracle Universal Installer](#)" on page 5-4.

The Confirm Pre-Install Requirements screen appears after you click **Next** on the File Locations screen at step 14 on page 5-6. Follow these procedures to install an application middle tier.

1. Confirm the pre-install requirements and click **Next** to display the Component Configuration screen.
2. Select the components you want to install and click **Next**. Note that Oracle Calendar Web client, Sync Server and Web services cannot be installed unless you

select **Oracle Calendar Application System**. Oracle Calendar will be installed in the following locations:

Notes:

To install only the Oracle Calendar server:

1. Select **Oracle Calendar Server** instead of **Oracle Calendar Application System**.
2. Consequently, you will be prompted for the client's **Host** and **Port**. If you do not know these values, you can enter temporary values and later, edit the server's `unison.ini` file, as follows:

```
[RESOURCE_APPROVAL]
url=http://host_name:port_number/ocas-bin/ocas.fcgi
```

To install only the Oracle Calendar application system:

1. Select **Oracle Calendar Application System** instead of **Oracle Calendar Server**.
2. Consequently, you will only be prompted to enter the **Host**, **Port** and **Node-ID** for the Oracle Calendar server. If you do not know these values, you can enter temporary values and, later, edit the application system's `ocas.conf` file with the correct values, as follows:

```
[CONNECTION]
mnode=host_name:engine_port,node
```

Component	Location
Server	<code>\$ORACLE_HOME>/ocal/</code>
Administrator	<code>\$ORACLE_HOME>/ocad/</code>
Application System	<code>\$ORACLE_HOME>/ocas/</code>

3. Click **Next** to display the Existing Oracle9iAS Single Sign-On screen.
4. Enter the host name and port number for your existing instance of Oracle9iAS Single Sign-On and click **Next** to display the Oracle Internet Directory screen.
5. Enter the administrator's user name and password of the existing Oracle Internet Directory instance and click **Next** to display the Specify Administrative Password and Instance Name screen.
6. Choose an **Instance Name** and choose and confirm an **Administrative Password**.

Notes:

- The **Instance Name** is not a database instance name but a name for the middle tier instance installation.
 - The **Administrative Password** chosen here will also be the Oracle Internet Directory administrator's password for the middle tier.
-
-

Installing Oracle Web Conferencing

7. Click **Next** to display the Oracle Real-Time Collaboration Repository Location screen. Enter the required information in all the fields.

8. Click **Next** to display the Oracle Real-Time Collaboration Repository Details screen. The information for which you are prompted depends on the database you are using.

If you are using the Oracle Collaboration Suite information storage database, reset the passwords for the schema.

9. After entering the information, click **Next** to display the Oracle Calendar Default Time Zone screen.

Installing the Oracle Calendar Server and the Oracle Calendar Application System

Note: If the kernel parameters on your computer are not sufficient to run the Oracle Calendar server, an information dialog box opens explaining which parameters you might have to change. Make whatever changes are necessary, restart the computer, and restart the installation. For details on calculating required kernel parameters, see Appendix B, "Adjusting Calendar Kernel Parameters," of the *Oracle Calendar Administrator's Guide*.

10. Select the default time zone for new Oracle Calendar users. Click **Next** to display the Oracle Calendar Node-ID screen.
11. Specify a unique numerical ID for the Oracle Calendar node between 1 and 49999. Click **Next** to display the Oracle Calendar Master Node screen.
12. If this is your first installation of the Oracle Calendar server, select **Yes** in the Oracle Calendar Master Node screen to make the current installation the master node. You must have one master node on your network in order for Web services and Sync Server to work. Click **Next** to display the Summary screen.
13. Review the settings for your installation. If you need to make any changes, click **Back**. Click **Next** to display the Install screen.

The progress of the installation displays in a progress bar on this screen.

14. As prompted, run `root . sh`. You must do this as `root` from another terminal window. When `root . sh` completes, log off as `root` and click **OK** to display the Configuration Assistants screen.

Each component configuration assistant will launch automatically. If a configuration assistant fails, the cause of the failure displays in a window on the screen. Correct the cause of the failure and click **Retry**.

15. When the Oracle Net Configuration Assistant Welcome screen displays, select **Perform typical installation**. Click **Next** to display the Configuration Assistants screen.

Configuring Oracle Files

16. When the Files Configuration Assistant screen displays, go to "[Configure Oracle Files](#)" on page 12-7 and complete the procedures listed there.

Completing the Middle Tier Installation

17. When the Oracle Files configuration assistant completes, the Configuration Assistants screen displays. Click **Next** to display the End of Installation screen.
18. Take note of the information displayed in the End of Installation screen.

19. Click **Exit** to finish the installation.
20. Use the following commands to restart Oracle Enterprise Manager:

```
$ORACLE_HOME/bin/emctl stop  
$ORACLE_HOME/bin/emctl start
```

Installing the Oracle Web Conferencing Document and Voice Conversion Servers

The document conversion server and voice conversion server must be installed on a separate computer from the middle tier. Both servers can be installed on the same computer, or on separate ones. Before installing the document conversion server and voice conversion server, you must install the Oracle9i Application Server on each computer on which these components will reside. Follow the same steps for installing the middle-tier, with the following exceptions:

- In the Component Configuration screen, it is not necessary to select Oracle Web Cache
- In the Oracle9iAS Infrastructure Use screen, select **No**
- In the Create Instance Name and `ias_admin` Password screen, create a new instance name. It is not necessary to associate this component with an existing instance.

When you finish installing the middle tier, install the document and voice conversion servers.

1. Install the document conversion server or voice conversion server by selecting the appropriate radio buttons. This selection makes it possible to install one or both of these components. Click **Next**.
2. Select the components you want to install, and click **Next**.
3. Enter the host, port number, and SID of the database that contains the Oracle Real-Time Collaboration repository. Also, enter a password for the Oracle Real-Time Collaboration repository schema `RTC_APP`. Click **Next**.
4. This screen shows the status of the component installation.

Installing Oracle Collaboration Suite Integrated Web Client

Oracle Collaboration Suite provides an integrated Web client for browser-enabled computers. It uses the underlying Oracle9i Application Server to provide a secure, single sign-on environment. The integrated Web client can be used to access messages (e-mail, voice mail, and fax), calendar and directory information, Oracle Web Conferencing features, and content stored in Oracle Files.

By default, the Web client is automatically integrated during the component configuration when installing Oracle Collaboration Suite. If you deselect the Web client during installation, you must run the Web client installer.

The Web client installer performs the following tasks:

- Installs the Oracle Collaboration Suite home page
- Adds Web providers and portlets for installed Oracle Collaboration Suite components
- Sets the Oracle Collaboration Suite home page as the default Web page for Oracle Collaboration Suite users

- Grants customized privileges to users of the Oracle Collaboration Suite home page

You can run the Web client installer whenever a new Oracle Collaboration Suite component is installed in order for the component to be available on the Oracle Collaboration Suite home page. The Web client installer is only available for the following Oracle Collaboration Suite components:

- Oracle Calendar
- Oracle Email
- Oracle Files
- Oracle Web Conferencing
- Oracle*9i*AS Wireless
- Oracle Ultra Search

You can invoke the Web client installer using one of the following methods:

- Through the Oracle Universal Installer
- Using the command line

Invoking the Web Client Installer using the Command Line

When you install Oracle Collaboration Suite, you can choose to install selected components instead of the entire suite. If you install an additional component later, then in order for the component to be available on the Oracle Collaboration Suite home page, you must configure the component's URL and run the Web client command line installer.

Configuring the Component's URL

Configure the component's URL by modifying the `webclient.properties` file located in the following directory:

```
$ORACLE_HOME/webclient/classes/oracle/collabsuite/webclient/resources
```

The `webclient.properties` contains three URL listings for each Oracle Collaboration Suite component: the help page URL, the application URL, and the provider URL. Replace the token for the host name and the port number in all three URL listings for the component you are installing.

Running the Web Client Command Line Installer

To run the Web client command line installer, enter the following command:

```
$ORACLE_HOME/webclient/bin/webclient_installer.sh
```

The preceding command will install the provider and portlets for the new component on the Oracle Collaboration Suite home page.

If you know the Oracle*9i*AS Portal schema name, password, and connect string details, you can also invoke the configuration assistant as follows:

```
$ORACLE_HOME/webclient/bin/webclient_installer.sh -s schema -p password -c connect_string
```

Where:

- ***schema***: The Oracle database account for Oracle*9i*AS Portal
- ***password***: The Oracle*9i*AS Portal account password

- **connect_string**: The connect string to the database instance where the Oracle9iAS Portal repository is installed; specified as *host_name:port:SID*

Manually Setting Up HTTPS with mod_osso on the Middle Tier

The Oracle Collaboration Suite installation program automatically configures your system to use https with mod_osso on a default Oracle Collaboration Suite middle tier. At times, however, it may be necessary to configure this manually.

The instructions in this section describe how to do this, which is necessary for using the Oracle Calendar Administrator with https, but will also work for any other Oracle9iAS Single Sign-On-protected application requiring https on the middle tier.

After completing the procedure in this section:

- There will be an additional partner application for the preferred https port on the middle tier. This partner application will use that https port for each of the Oracle9iAS Single Sign-On URLs (the Oracle9iAS Single Sign-On port must match that of the middle tier's requested URL, which is why these steps are required for https).
- There will be two new Oracle HTTP Server configuration files on the middle tier to support this setup: mod_osso_https.conf and MIDTIER_HOST.https-osso.conf

Before you begin:

- SSO_HOST is the fully qualified host name of the Oracle9iAS Single Sign-On server
- MIDTIER_HOST is the fully qualified host name or IP address of the middle tier
- MIDTIER_HTTPS_PORT is the https port on the middle tier, usually 4443

This section contains the following topics:

- [Verifying the Setup](#)
- [Setting up https with mod_osso](#)

Verifying the Setup

1. Using a Web browser, go to the Oracle9iAS Single Sign-On server home page (assuming http is on port 7777):

```
http://SSO_HOST:7777/pls/orasso
```
2. Click **Login** and log in with administration privileges.
3. Click **SSO Server Administration**.
4. Click **Administer Partner Applications** and verify the following:
 - The Oracle9iAS Single Sign-On server must be listening (and functional) on the https port that is to be configured on the middle tier
 - There must be only *one* partner application listed for the https port on the middle tier (click **Edit** to view the settings: usually 7777 when using Oracle Web Cache)
 - The partner application for the https port on the middle tier must have the same port number for the all of the following Oracle9iAS Single Sign-On URLs:
Home URL

Success URL

Logout URL

- There must not be any partner applications listed for the `http` port on the middle tier (usually 4443 when using Oracle Web Cache)

If either of these requirements are not met, please refer to Oracle*9i*AS Single Sign-On and Oracle HTTP Server documentation to correct the configuration.

5. Ensure that you can restart the Oracle HTTP Server on the middle tier with no errors:

```
>dcmctl restart -ct ohs
```

Setting up https with mod_osso

Proceed with the following steps from the middle tier console.

Note: Ensure that the `ORACLE_HOME` environment variable is correct and that you have permissions to all files. In addition, set the `LIBPATH` environment variable to `$ORACLE_HOME/lib32`.

1. Create a text file named `ssl_osso.sh`, as shown in [Example 6-1](#).

Example 6-1 Content of `ssl_osso.sh` script

```
#!/bin/sh
# This script creates a osso\osso-conf file ($AS_HOST.AS_PROTOCOL-osso.conf)
# AS = Application server or midtier
# Modify following variables before running
AS_PROTOCOL=https
AS_HOST=MIDTIER_HOST
AS_PORT=MIDTIER_HTTPS_PORT
SSO_HOST=SSO_HOST
MODOSSO_FILE=${ORACLE_HOME}/Apache/Apache/conf/mod_osso.conf
MODOSSO_HTTPSFILE=${ORACLE_HOME}/Apache/Apache/conf/mod_osso_https.conf
echo 'Registering mod_osso, please wait...'
cp $MODOSSO_FILE $MODOSSO_HTTPSFILE
# Note: make sure that your Oracle9iAS Single Sign-On server runs on port
# 1521. If not, replace '-port 1521' with correct port number.
$ORACLE_HOME/jdk/bin/java \
  -jar $ORACLE_HOME/sso/lib/ossoreg.jar \
  -host $SSO_HOST \
  -port 1521 \
  -sid iasdb \
  -site_name $AS_HOST.$AS_PROTOCOL:$AS_PORT \
  -oracle_home_path $ORACLE_HOME \
  -success_url $AS_PROTOCOL://$AS_HOST:$AS_PORT/osso_login_success \
  -logout_url $AS_PROTOCOL://$AS_HOST:$AS_PORT/osso_logout_success \
  -cancel_url $AS_PROTOCOL://$AS_HOST:$AS_PORT/ \
  -home_url $AS_PROTOCOL://$AS_HOST:$AS_PORT/ \
  -config_mod_osso TRUE -u root -sso_server_version v1.2 \
  -config_file $ORACLE_HOME/Apache/Apache/conf/osso/$AS_HOST.$AS_PROTOCOL-osso.conf
cp $MODOSSO_HTTPSFILE $MODOSSO_FILE
```

2. Run the `ssl_osso.sh` script:

```
sh ssl_osso.sh
```

3. Comment out the line with `LoadModule osso_module libexec/mod_osso.so` within the `mod_osso.conf` and `mod_osso_https.conf` files, both located in the `$ORACLE_HOME/Apache/Apache/conf/` directory.
4. In `mod_osso_https.conf`, replace the `OsssoConfigFile` directive with the following (if it is missing, add it to the `<IfModule mod_osso.c>` section):

```
OsssoConfigFile conf/osso/MIDTIER_HOST.https-osso.conf
```
5. In `httpd.conf`, add the following directive directly after all of the `LoadModule` directives (right after `fastcgi_module` with a default setup):

```
LoadModule osso_module libexec/mod_osso.so
```
6. Within the `VirtualHost _default_:4444` directive (or your `https VirtualHost` if the port is different) of `httpd.conf`, add the following line:

```
include conf/mod_osso_https.conf
```
7. Restart Oracle HTTP Server on the middle tier (you may also use `opmnctl`):

```
dcmctl stop -ct ohs  
dcmctl start -ct ohs
```

Additional Documentation

The Oracle Collaboration Suite Documentation Library CD-ROM is included in your Oracle Collaboration Suite CD Pack. For information about accessing the documentation from the CD-ROM, refer to *Oracle Collaboration Suite Documentation Roadmap*.

Installing and Configuring Oracle Voicemail & Fax

This chapter discusses and explains how to install the Oracle Voicemail & Fax system.

This chapter contains the following topics:

- [Preinstallation Checklist](#)
- [Installation Requirements](#)
- [Installing Oracle Voicemail & Fax Telephony Server](#)
- [Running the Oracle Voicemail & Fax Configuration Assistant on the Middle Tier](#)
- [Adding an Oracle Voicemail & Fax Telephony Server](#)
- [Adding an Additional Information Storage Database to Oracle Collaboration Suite](#)

Preinstallation Checklist

This section describes preinstallation tasks that must be performed prior to installing Oracle Voicemail & Fax.

Perform the following tasks prior to installing Oracle Voicemail & Fax:

1. Modify the Windows Service named CT Media or Intel NetMerge CC Server so that it runs under the context of the user performing the installation. The user performing the installation should be in the `CTMUsers` group.
2. Restart the CT Media or NetMerge server and bring it up to level 5 before installation.

Installation Requirements

Installation of Oracle Voicemail & Fax consists of two tasks:

- Installing the Oracle Voicemail & Fax Telephony Server on a Windows 2000 system
- Running the Oracle Voicemail & Fax Configuration Assistant on each middle tier

Prior to installing Oracle Voicemail & Fax you must have the following:

- **Oracle Collaboration Suite with Oracle Email:** Installed, configured, and running on a system other than that where Oracle Voicemail & Fax is installed
- **Windows 2000 Resource Kit**
- **Intel NetMerge Converged Communication Server or CT Media Server**
- **S.410 SDK V1.0 for CT Media**

Installing Oracle Voicemail & Fax Telephony Server

Installing the Oracle Voicemail & Fax Telephony Server is a two-part process. The first part of the process installs the Oracle9iAS core and the second part installs the Oracle Voicemail & Fax code.

Notes:

- Both parts of the telephony server installation must be performed by a user who belongs to the CTMUser User Group and Administrators Group.
- The running user name of the CT Media or NetMerge servers must be the same as the user name running the installation.

To change the running user name, select **Start > Settings > Control Panel > Administrative Tools > Services**. Right click the service. Choose **Properties**. Click the **Log On** tab and change the **Log on as** option.

This section contains these topics:

- [Installing the Oracle9iAS Core](#)
- [Installing the Oracle Voicemail & Fax Code](#)

Installing the Oracle9iAS Core

You may do a manual install of the Oracle 9iAS Core which is described below or you have the option of doing a silent installation of the Oracle 9iAS Core. For more information, see "[Silent Installation of Oracle9iAS Core](#)" on page 7-5.

To install the Oracle9iAS core:

1. Insert the Oracle Voicemail & Fax CD into the CD-ROM drive.
2. Run `install.bat` located in the `\install\win32` directory to display the Welcome screen of the Oracle Universal Installer.
3. Click **Next** to display the File Locations screen. In the **Destination** section, enter the name of an Oracle home or select an existing Oracle home from the **Name** field.
4. Enter the path to the Oracle home in the **Path** field.
You can also click **Browse** to locate the Oracle home path.
5. Click **Next** to display the Oracle Internet Directory screen.
6. Enter a user name and a password. The default user name is `cn=orcladmin`.
7. Click **Next** to display the Create Instance Name screen.
8. Enter a name for the Oracle9iAS instance in the **Instance Name** field.
9. Enter the `ias_admin` password for the current host in the **ias_admin Password** field.
10. Click **Next** to display the Summary screen.
11. Click **Install** to display the End of Installation screen.
12. Click **Exit** to display the Exit screen.
13. Select **Yes, restart the system now** and click **OK** to restart the system.

After the system restarts, the second part of the installation automatically begins.

Installing the Oracle Voicemail & Fax Code

This part of the installation does the following:

- All of the Oracle Voicemail & Fax files are copied to the telephony server
- Prompts are added to the CTMedia Container
- The `sc_vsto.cfg` file is created to configure Oracle Voicemail & Fax Container
- The `rmid`, `rmiregistry`, and `UMProcessMgrService` processes are installed
- The Oracle Voicemail & Fax Media Services Profile is loaded into the CT Media Server. Changes are made to `SCR_AppProfile`, `SCR_ASIMap`, and `SCR_RoutingRules`.

To install the Oracle Voicemail & Fax code:

1. Upon completion of the system restart, the Mailstore Selection screen displays.
2. Select an information store from the **Mailstore Selection** list.
3. If you select an information store other than **<none>** from the **Mailstore Selection** list, you will be asked to provide a UM password. The default is `welcome`.
Otherwise the **Password for DB User 'um'** field is inactive.
4. Click **Next** to display the Summary screen.
5. Click **Install** to display the End of Installation screen.
6. Click **Exit**.

Proceed to "[Oracle Voicemail & Fax Information Store Database Accounts](#)" to complete a recommended step.

Oracle Voicemail & Fax Information Store Database Accounts

When you install Oracle Voicemail & Fax, the UM user account is automatically created. Voice mail processes use the UM account to access the information store, and the account contains the schema objects used in the delivery of message-waiting-indicator (MWI) requests. The following roles and privileges are granted to the account: `CONNECT`, `RESOURCE`, `DBA`, `EXECUTE ON DBMS_AQ`, `EXECUTE ON DBMS_AQADM`, and `JAVAUSERPRIV`. The default password provided during installation is `welcome`.

The `JAVAUSERPRIV` privilege is not required for the processes to run. Therefore, Oracle recommends removing this privilege after installation to make your system more secure.

Note: You will need to perform the following procedure for each information store.

To revoke the `JAVAUSERPRIV` privilege:

1. Log in as `SYSTEM`.
2. Execute the commands:

```
REVOKE  JAVAUSERPRIV FROM UM;

CALL  DBMS_JAVA.revoke_permission('PUBLIC',
'java.net.SocketPermission', '*', 'read,write');
```

Proceed to "[Running the Oracle Voicemail & Fax Configuration Assistant on the Middle Tier](#)" to continue the installation.

Running the Oracle Voicemail & Fax Configuration Assistant on the Middle Tier

Note: If you are only adding an additional telephony server to an existing installation of Oracle Collaboration Suite, proceed to "[Adding an Oracle Voicemail & Fax Telephony Server](#)" on page 7-5.

The Oracle Voicemail & Fax configuration assistant performs the following tasks:

- Loads Oracle Voicemail & Fax middle tier process entries into Oracle Internet Directory
- Configures Enterprise Manager to administer Oracle Voicemail & Fax processes
- Loads the UM schema into the information storage database
- 1. Run `uminfra_install.sh` on each middle tier system, located in the `$ORACLE_HOME/um/uminfra` directory to display the Mailstore Selection screen of the configuration assistant.
- 2. Select an information store from the **Mailstore Selection** list.

If you select an information store other than **<none>** from the **Mailstore Selection** list, you will be asked to provide `SYSTEM`, `ES_MAIL`, and `UM` passwords. The default values are as follows:

- **SYSTEM:** manager
- **ES_MAIL:** es
- **UM:** welcome

Note: If you created a new `SYSTEM` password during the creation of the information storage database, and new `ES_MAIL` and `UM` passwords during the Oracle Email installation, you must use these new passwords.

3. Click **Next** and select the Oracle Voicemail & Fax Telephony Server that you want to be managed by this middle tier.
4. Click **Next** to display the End of Installation screen.
5. Click **Exit**.
6. Restart the Oracle Voicemail & Fax Windows 2000 telephony server upon completion of the configuration assistant.

See Also: *Oracle Voicemail & Fax Administrator's Guide* for further configuration information

This concludes the installation of Oracle Voicemail & Fax.

Silent Installation of Oracle9iAS Core

You can do a silent installation of the Oracle9iAS core.

To do a silent installation:

1. Edit the `%CD_HOME%\Disk1\install\win32\ias_core_top.rsp` file. Comments in the file provide instructions on the required values.
2. Run the following command:


```
full_path\setup.exe -silent -response full_path\ias_core_top.rsp
```
3. Go to the `ORACLE_HOME\um\scripts` directory and run the `findmailstores.bat` file.
4. Reboot the system. The second part of the installation automatically begins. See ["Installing the Oracle Voicemail & Fax Code"](#) on page 7-3.

Adding an Oracle Voicemail & Fax Telephony Server

To add additional telephony servers:

1. Follow the procedures outlined in ["Installing Oracle Voicemail & Fax Telephony Server"](#) on page 7-2.
2. Execute `$ORACLE_HOME/um/uminfra/uminfra_install.sh` on each middle tier.
3. Select **None** for the information store.
4. Select the voice mail server you want to be managed by this Oracle Enterprise Manager Daemon server.

Adding an Additional Information Storage Database to Oracle Collaboration Suite

Any time an additional information storage database is added to the Oracle Collaboration Suite system, you must rerun the Oracle Voicemail & Fax configuration assistant and update the `sc_vsto.cfg` file.

Rerunning the Oracle Voicemail & Fax configuration assistant does the following:

- Creates the UM schema on the information storage database
- Creates the Advanced Queue Message Waiting Indicator process

To set up the new information storage database for Oracle Voicemail & Fax:

1. Execute `$ORACLE_HOME/um/uminfra/uminfra_install.sh` on each middle tier.
2. Select the new information storage database and supply the necessary passwords.
3. Select **None** for the voice mail server.
4. On each telephony server the `sc_vsto.cfg` file must be updated with the new information storage information.

[Example 7-1](#) shows the `sc_vsto.cfg` file before it is updated.

Example 7-1 *sc_vsto.cfg File*

```

{
  Container_ORCL_VPIM: {
    Container_DLGC_DLLName: "orclcont.dll"
    Container_DLGC_Initialize: "StorageInitialize"
    Container_DLGC_Shutdown: "StorageShutdown"
    Container_DLGC_Parameters: {
      Container_ORCL_ESNode: "v2store.v2store"
      Container_ORCL_DBSet: (
        {
          Container_ORCL_DBName: "v2store.v2store"
          Container_ORCL_PoolMax: 10
          Container_ORCL_PoolMin: 1
          Container_ORCL_DBUserid: "um"
          Container_ORCL_DBPassword:
"0495022e8cbe976b4e9156aeff710fdbe6dfeac30dff5ddd81"
          Container_ORCL_DBConnect:
"(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=thintest.us.oracle.com)
(PORT=1521))) (CONNECT_DATA=(SERVICE_NAME=v2store.v2store)))"
        }
      )
    }
  }

  Container_DLGC_FileStrategy: {
    Container_DLGC_DLLName: "std_sto.dll"
    Container_DLGC_Initialize: "StorageInitialize"
    Container_DLGC_Shutdown: "StorageShutdown"
    Container_DLGC_Parameters: {
  }
}
}

```

[Example 7-2](#) shows an updated `sc_vsto.cfg` file.

Example 7-2 *Updated sc_vsto.cfg File*

```

{
  Container_ORCL_VPIM: {
    Container_DLGC_DLLName: "orclcont.dll"
    Container_DLGC_Initialize: "StorageInitialize"
    Container_DLGC_Shutdown: "StorageShutdown"
    Container_DLGC_Parameters: {
      Container_ORCL_ESNode: "v2store.v2store"
      Container_ORCL_DBSet: (
        {
          Container_ORCL_DBName: "v2store.v2store"
          Container_ORCL_PoolMax: 10
          Container_ORCL_PoolMin: 1
          Container_ORCL_DBUserid: "um"
          Container_ORCL_DBPassword:
"0495022e8cbe976b4e9156aeff710fdbe6dfeac30dff5ddd81"
          Container_ORCL_DBConnect:
"(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=database_host_name)
(PORT=1521))) (CONNECT_DATA=(SERVICE_NAME=v2store.v2store)))"
        }
      )
      {
          Container_ORCL_DBName: "2nd_information_storage_database_name"
          Container_ORCL_PoolMax: 10
          Container_ORCL_PoolMin: 1
          Container_ORCL_DBUserid: "um"

```

```

        Container_ORCL_DBPassword:
"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
        Container_ORCL_DBConnect:
"(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=2nd_database_host_name)
(PORT=1521))) (CONNECT_DATA=(SERVICE_NAME=2nd_information_storage_database_
name)))"
    }
    )
}

Container_DLGC_FileStrategy: {
    Container_DLGC_DLLName: "std_sto.dll"
    Container_DLGC_Initialize: "StorageInitialize"
    Container_DLGC_Shutdown: "StorageShutdown"
    Container_DLGC_Parameters: {
    }
}
}

```

In the preceding example, the parameters are defined as follows:

- **ORCL_DBName:** The global database name, which can be retrieved from Oracle Internet Directory
- **PoolMax, PoolMin:** The values depend on the system. The default values are 10 and 1
- **DBUserid:** Always um
- **DBPassword:** An encrypted string of the um user password. Obtain this password by executing the following program:


```
%ORACLE_HOME%\um\scripts\encrypt.exe um_password
```

The program will output an encrypted string, which the user can copy and paste into the file.
- **DBConnect:** The connect string of the new database, which can be retrieved from LDAP

Silent and Non-Interactive Installation

This chapter guides you through silent and non-interactive installation of Oracle Collaboration Suite.

This chapter contains these topics:

- [Introduction to Non-Interactive Installations](#)
- [Installation Requirements](#)
- [Creating Files for Silent and Non-Interactive Installation](#)
- [Selecting a Response File](#)
- [Editing the Response File](#)
- [Specifying a Response File](#)
- [Running the root.sh Script](#)
- [Error Handling](#)
- [Deinstallation](#)
- [Using Configuration Assistants in Non-Interactive Mode](#)

Introduction to Non-Interactive Installations

Oracle Collaboration Suite features two non-interacting methods of installation:

- [Silent Installation](#)
- [Non-Interactive Installation](#)

Silent Installation

Silent installation of Oracle Collaboration Suite is accomplished by supplying Oracle Universal Installer with a response file and specifying the `-silent` flag. Oracle Universal Installer uses variables and values contained in a text file, called a response file, to provide answers to all of its user prompts. You include responses for all of the prompts in the response file. Silent installation displays no graphical output.

If this is a first time installation of Oracle Collaboration Suite, you must manually create three files before starting installation. These files are used by Oracle Universal Installer during the installation.

- `oraInst.loc`
- `emtab`
- `oratab`

Following any silent Oracle Collaboration Suite installation, run the `root.sh` script. The `root.sh` script detects settings of environmental variables and enables you to enter the full path of the local `bin` directory.

Use silent installation of Oracle Collaboration Suite when you want similar installations on more than one computer. Additionally, use silent installation when performing the Oracle Collaboration Suite installation from a remote location using the command line. Silent installation eliminates the need to monitor the Oracle Collaboration Suite installation because there is no graphical output and no input by the user.

See Also:

- ["Creating Files for Silent and Non-Interactive Installation"](#) on page 8-2
- ["DISPLAY"](#) on page 2-7 for more information about remote installation

Non-Interactive Installation

Non-interactive installation of Oracle Collaboration Suite is accomplished by supplying Oracle Universal Installer with a response file, but without specifying the `-silent` flag. Oracle Universal Installer uses variables and values contained in a text file, called a response file, to provide answers to some or all of its user prompts. Oracle Universal Installer provides graphical output. If you have not provided responses to all of its prompts, then you may need to enter information during the installation.

You must run the `root.sh` script during the installation process. The `root.sh` script detects settings of environmental variables and enables you to enter the full path of the local `bin` directory.

See Also: ["Specifying a Response File"](#) on page 8-4 for information about executing a response file

Installation Requirements

For a complete list of installation requirements, refer to [Chapter 2, "Preparing for Installation"](#).

Creating Files for Silent and Non-Interactive Installation

If the `oraInst.loc`, `emtab`, and `oratab` files do not exist on your computer, you must create them before starting silent installation of Oracle Collaboration Suite. They are used by the Oracle Universal Installer during silent installation. The appropriate location for these files on AIX-based systems is the `/etc` directory.

oraInst.loc File Creation

As the `root` user, create the `oraInst.loc` file in the `/etc` directory. Ensure the file has read and write permissions set for the `oracle` user group. The `oracle` user group is the group performing the installation. The `oraInst.loc` file should have the following text input:

```
inst_group=oracle_user_group
inventory_loc=$ORACLE_HOME
```

where `inventory_loc` is the location for inventory files and `$ORACLE_HOME` is the absolute directory path. For example, if your `$ORACLE_HOME` is `/private2/oracle/ocs`, then the content of the file is:

```
inst_group=oracle_user_group
inventory_loc=/private2/oracle/ocs
```

Note: If `inventory_loc` is not located in your Oracle home, then ensure that the directory where it is located has read and write permissions set for `oracle_user_group`.

emtab File Creation

Create the `emtab` file in the `/etc` directory. Ensure that the file has read and write permissions set for the `oracle` user group. The `emtab` file should have the following text input:

```
DEFAULT=$ORACLE_HOME
```

where `$ORACLE_HOME` is the absolute directory path. For example, if your `$ORACLE_HOME` is `/private2/oracle/ocs`, then the content of the file is:

```
DEFAULT=/private2/oracle/ocs
```

oratab File Creation

Create the `oratab` file in the `/etc` directory. Ensure that the file is empty and has read and write permissions for the `oracle` user group.

Selecting a Response File

The Oracle Collaboration Suite CD Pack provides the Oracle Universal Installer response files for the three installations shown in [Table 8-1](#).

Table 8-1 Response Files

For This Installation...	The Filename Is...
Oracle9iAS Infrastructure	<code>infrastructure.rsp</code>
Oracle Collaboration Suite information storage	<code>storage.rsp</code>
This installation also includes response files for Oracle Network Configuration Assistant (<code>netca.rsp</code>) and Database Configuration Assistant (<code>dbca.rsp</code>).	
Oracle Collaboration Suite	<code>midtier.rsp</code>
This installation also includes a response file for Oracle Files configuration assistant (<code>silentconfig.properties</code>).	

Response files are located in the `/response` directory located at the root of the first CD-ROM in the CD-ROM set of each of the three installations. You must edit the response file to satisfy your silent or non-interactive installation requirements. To use a response file, first copy it from the CD-ROM to your system.

For example:

1. Go to the `/response` directory (for example, on the first CD-ROM of the Oracle9iAS Infrastructure installation CD-ROM set).

2. Copy the `infrastructure.rsp` file to your system hard drive:

```
prompt> cp infrastructure.rsp private/ocs_infr_cd1/response/infrastructure.rsp
```

Editing the Response File

Use any text editor to edit the response file to include information specific for your system. The response file text identifies information that you must provide.

You must specify values for variables in your response file. Each variable listed in the response file is associated with a comment. The comment identifies the variable type. For example:

```
string = "Sample Value"  
Boolean = True or False  
Number = 1000  
StringList = {"StringValue 1", "StringValue 2"}
```

The values that are given as `<Value Required>` must be specified for silent installation.

Remove the comment from the variable values in the response file before starting the Oracle Collaboration Suite installation.

Specifying a Response File

Before you specify a response file, ensure that you have properly configured the file. Refer to the previous section for more information.

See Also:

- ["Editing the Response File"](#) on page 8-4
- ["Non-Interactive Configuration of Oracle Files"](#) on page 12-24
- ["Starting Oracle Universal Installer"](#) on page 5-4
- ["oraInventory Directory and Installation Session Log Files"](#) on page 5-3

To make Oracle Universal Installer use the response file at installation time, specify the location of the response file as a parameter when starting Oracle Universal Installer:

```
prompt> ./runInstaller -responseFile absolute_path_and_filename
```

In non-interactive mode, the `DISPLAY` environment variable must be set as described in ["DISPLAY"](#) on page 2-7. To perform a completely silent installation session, use the `-silent` parameter:

```
prompt> ./runInstaller -silent -responseFile absolute_path_and_filename
```

The success or failure of the non-interactive installation is logged in `installActions.log`. The success or failure of the silent installation is logged in `silentInstall.log`. The log files are created in the `oraInventory` directory during installation.

Important: During installation, these response files may be copied to subdirectories under `$ORACLE_HOME` in order to install some Collaboration Suite components. When the installation completes successfully, these copies are removed. If the installation fails, however, these copies may not be removed. If you have provided passwords or other sensitive information in your response files, it is recommended that you delete any copies of the response files that remain in your file system.

Running the root.sh Script

When performing a silent or non-interactive installation, you must run the `root.sh` script after any silent installation of Oracle Collaboration Suite.

root.sh and Silent Installation

During any silent Oracle Collaboration Suite installation, you are not prompted to run the `root.sh` script. You must run the `root.sh` script after silent installation.

Use the following steps to run the `root.sh` script.

1. Log in as the `root` user.
2. Run the `root.sh` script in the Oracle home directory.

```
prompt> $ORACLE_HOME/root.sh
```

where `$ORACLE_HOME` is the absolute directory path.

3. Exit the `root` user.

Oracle HTTP Server

During silent installation, Oracle Universal Installer attempts to start Oracle HTTP Server. However, Oracle HTTP Server does not start until the `root.sh` script is run. Ignore any error messages generated due to the inability to start Oracle HTTP Server.

After running the `root.sh` script, restart Oracle HTTP Server as follows:

```
$ORACLE_HOME/opmn/bin opmnctl stopall  
$ORACLE_HOME/opmn/bin opmnctl startall
```

Using Oracle HTTP Server On a Different Port

If you want to use Oracle HTTP Server on a port number that is less than 1024, do not run the `root.sh` script. Instead, run the following script as the `root` user:

```
$ORACLE_HOME/Apache/Apache/bin/root_sh_append.sh
```

where `$ORACLE_HOME` is the absolute directory path.

The `root_sh_append.sh` script sets the necessary permissions for the Oracle HTTP Server to be run on a port less than 1024.

root.sh and Non-Interactive Installation

During non-interactive installation of Oracle Collaboration Suite, Oracle Universal Installer prompts you to run the `root.sh` script.

Perform the following steps to run the `root.sh` script:

1. Log on as the `root` user.
2. Run the `root.sh` script in the Oracle home directory.

```
prompt> $ORACLE_HOME/root.sh
```

where `$ORACLE_HOME` is the absolute directory path.

3. Exit `root` user.

For non-interactive installation, after you see “Finished running generic part of the `root.sh` script” and “Now product-specific root actions will be performed,” exit root user and return to the Install screen.

The `root.sh` script detects:

- Settings of the `ORACLE_OWNER`, `ORACLE_HOME`, and `ORACLE_SID` environment variables
- Full path of the local `bin` directory. You can accept the default or change to a different local `bin` directory.

Error Handling

The success or failure of a silent or non-interactive installation is logged in the `silentInstall.log` file. This file is created in the `oraInventory` directory.

Values for variables that are of the wrong context, format, or type are treated as if no value were specified. Variables that are outside any section are ignored.

If you attempt a silent or non-interactive installation with an incorrect or incomplete response file, or Oracle Universal Installer encounters an error, such as insufficient disk space, the installation fails.

If you attempt a non-interactive installation without specifying a response file, the installation fails.

Deinstallation

If your silent or non-interactive installation fails, you must completely deinstall any files remaining from your Oracle Collaboration Suite installation attempt.

See Also: [Chapter 9, "Deinstalling Oracle Collaboration Suite Components"](#)

Using Configuration Assistants in Non-Interactive Mode

To use a configuration assistant in non-interactive mode, do one of the following:

- Configure an Oracle Universal Installer response file to start the non-interactive configuration assistant.
- Run the configuration assistant in standalone mode using the following command format:

```
prompt> assistant_name [-silent] -responseFile filename
```

where `assistant_name` is the configuration assistant that you want to run and `filename` is the response file for that assistant.

If you perform an Oracle Collaboration Suite information storage installation in non-interactive mode, then Oracle Net Configuration Assistant does not configure

your system at the end of the installation. After the installation, run the Oracle Net configuration with the Oracle Net Configuration Assistant by executing the `netca` command from the Oracle home directory or use the `netca.rsp` response file.

Note: Oracle Universal Installer or a configuration assistant fails if you attempt a non-interactive session without configuring a response file. See "[Response File Error Handling](#)" on page 8-7 for more information about troubleshooting a failed non-interactive installation.

See Also:

- "[Non-Interactive Configuration of Oracle Files](#)" on page 12-24
- *Oracle Universal Installer Concepts Guide* for more information about preparing and using non-interactive installation and configuration assistant response file scripts. This manual is available on Oracle Technology Network at <http://otn.oracle.com>
- *Oracle MetaLink* if you are an Oracle Support customer. You can find new bulletins and responses to questions about non-interactive installation and configuration at the following Web site:
<http://metalink.oracle.com>

Response File Error Handling

Oracle Universal Installer or the configuration assistant validates the response file at runtime. If the validation fails, the non-interactive installation or configuration process ends. Oracle Universal Installer treats values for parameters that are of the wrong context, format, or type as if no value was specified in the file. Variables that are outside any section are also ignored.

Information about a failure is recorded in the installation session's log file.

See Also: "[oraInventory Directory and Installation Session Log Files](#)" on page 5-3 for more information about the `oraInventory` directory and installation log files

Deinstalling Oracle Collaboration Suite Components

This chapter describes how to deinstall Oracle Collaboration Suite components.

This chapter contains these topics:

- [Deinstallation Overview](#)
- [Preparing to Deinstall Oracle Components](#)
- [Deinstalling Oracle Components](#)

Notes:

- Stop all Oracle services and processes before starting the deinstallation process.
 - Oracle Universal Installer does not permit custom deinstallation of select components or Oracle Collaboration Suite instances. Confirm deinstallation objectives before starting deinstallation.
-
-

Deinstallation Overview

Oracle Universal Installer does not allow reinstallation of Oracle Collaboration Suite over an installed version. To reinstall Oracle Collaboration Suite over the same version, deinstall and then install the product.

To successfully deinstall Oracle Collaboration Suite from your host, Oracle Corporation recommends deinstalling all secondary (or subsequent) Oracle Collaboration Suite installations before you deinstall the primary (or first) installation.

Oracle Email must be deinstalled before deinstalling Oracle Collaboration Suite.

Preparing to Deinstall Oracle Components

1. Run the following script from each middle tier Oracle home before deinstalling the middle tier:

```
$ORACLE_HOME/oes/bin/removemidtierfromoid.sh
```

This script removes all e-mail process targets, process instances, and their references from Oracle Internet Directory.

2. Run SQL*Plus on the middle tier if the information storage needs to be deinstalled. Connect to the information storage database as `SYSTEM`, and run the following script:

```
$ORACLE_HOME/oes/install/sql/dropschema.sql;
```

3. Execute the following command from any Oracle home to delete mail store entries from Oracle Internet Directory:

```
$ORACLE_HOME/bin/ldapdelete -v -h <oidhost> -p <oidport>  
-Dcn=umadmin,cn=EEmailServerContainer,cn=Products,cn=OracleContext -w  
& <password> "cn=<global_dbname>,cn=mailstores,cn=um_  
system,cn=EEmailServerContainer,cn=Products,cn=OracleContext"
```

where,

<oidhost> - Infrastructure OID host name

<oidport> - Infrastructure OID port number

<password> - umadmin user password

<global_dbname> - Global database name of the mail store database

4. Deinstall the Oracle Collaboration Suite middle tier software using Oracle Universal Installer.

See Also: ["Starting Oracle Universal Installer"](#) on page 5-4

Deinstalling Oracle Components

1. Start the Oracle Universal Installer. See ["Starting Oracle Universal Installer"](#) on page 5-4.

The Welcome window appears.

2. Click **Deinstall Products**.

The Inventory window appears. This window displays all the components installed in Oracle home.

3. Review the installations and select the Oracle home you are deinstalling.

4. Click **Remove**.

The Confirmation window appears. This window lists all the components you just selected for deinstallation.

5. Scroll down the Confirmation window to verify the components selected for deinstallation.

6. Click **Yes**.

7. If you have multiple installations of Oracle9iAS Infrastructure, and select a secondary installation of Oracle9iAS Infrastructure, Oracle Universal Installer removes it. If you select the primary installation of Oracle9iAS Infrastructure, the Oracle9iAS Administration Service window appears. Your next action depends on how many Oracle9iAS Infrastructure installations you currently have on the host.

8. If you currently have only one installation of Oracle9iAS Infrastructure on the host, then the Oracle9iAS Administration Service window displays the following:

```
"The active Oracle9iAS Administration Service is in $ORACLE_HOME. There are no  
other Administration Services available."
```

```
"The active Oracle9iAS Administration Service is in ORACLE_HOME. There are no  
other Administration Services available."
```

9. Click **OK** to continue.

10. If you currently have multiple installations of Oracle9iAS Infrastructure on the host, then the Oracle9iAS Administration Service window displays the following:

"The active Oracle9iAS Administration Service is in \$ORACLE_HOME. You may select one of the Administration Services to become the active one."

"The active Oracle9iAS Administration Service is in ORACLE_HOME. You may select one of the Administration Services to become the active one."

Select one of the remaining Oracle9iAS Infrastructure installations. It becomes the primary installation and the new location for the Oracle9iAS Administration Service.

11. Click **OK** to continue.

Notes:

- If you deinstall a component, then all of its dependent components and files are also deinstalled.
 - Oracle Universal Installer does not deinstall all the files and directories during deinstallation. Remaining files and directories must be removed manually.
-
-

Part III

Oracle Collaboration Suite Component Configuration

Part III contains detailed post-installation instructions that you must perform in order to finish configuring the components of Oracle Collaboration Suite.

Part III contains the following chapters:

- [Chapter 10, "Configuring Oracle Calendar"](#)
- [Chapter 11, "Configuring Oracle Email"](#)
- [Chapter 12, "Configuring Oracle Files"](#)
- [Chapter 13, "Configuring Search Features"](#)
- [Chapter 14, "Configuring Oracle Web Conferencing"](#)

Note: Oracle9iAS Wireless includes built-in applications that must be configured after installation. The underlying Oracle9iAS Wireless stack, then the applications must be configured before use. For information on configuring these applications and other Oracle9iAS Wireless components, see the *Oracle9iAS Wireless Administrator's Guide*.

Configuring Oracle Calendar

This chapter discusses how to configure Oracle Calendar.

This chapter contains the following topics:

- [Manually Running the Oracle Calendar Configuration Assistants](#)
- [Configuring the Oracle Calendar Server](#)
- [Starting and Configuring the Oracle Calendar Application System](#)
- [Installing the Oracle Calendar Resource Kit](#)
- [Provisioning the orclguest Account with Multiple Instances of Oracle Calendar](#)
- [Configuring Oracle Calendar E-Mail Delivery](#)

Manually Running the Oracle Calendar Configuration Assistants

The Oracle Collaboration Suite installation program runs two Oracle Calendar configuration assistants, tools that configure Oracle Calendar to work with your system. If you encounter an error during installation due to a problem with your setup (for example, if a host URL you specified could not be read) you should manually run one or both of the configuration assistants once you have fixed the problem.

The two types of Oracle Calendar configuration assistants are:

- **Server** - Configures the Oracle Calendar server.
- **Group** - Enables the Oracle Calendar application system to connect to the Oracle Calendar server.

Check the information message at the end of the Oracle Collaboration Suite installation process to see which, if any, configuration assistant failed. You can also find this information in the log files under `$ORACLE_HOME/cfgtools`.

To manually run a configuration assistant:

1. Set your `ORACLE_HOME` environment variable to the directory where Oracle Calendar is installed.
2. Set your `LIBPATH` environment variable as follows:

```
$ORACLE_HOME/lib32:$ORACLE_HOME/ocal/sbin
```
3. Open the following log file:

```
$ORACLE_HOME/cfgtoollogs/configtoolsDATE_TIME.log
```
4. Locate the appropriate configuration assistant header; for example, the Group configuration assistant header looks like this:

```
-----
Launched configuration assistant 'Calendar Group Configuration Assistant'
-----
```

- Underneath the header, copy the command that was created during installation. The command will start with something similar to:

```
/home/myuser/oracle_home/jre...
```

And end with something similar to:

```
... -epw -DSDS OID -portDAS 5736 -DSMgrdn cn=orcladmin -emgrp -mme -ePIM
-eimt -eclient -tzkey MEZ-1MESZ -silent
```

- Run the command line you copied, making sure to replace the following parameters:

Parameter	Replace With
-epw	-nodepw <ias_admin_password>
-emgrp	-DSMgrp <DSMgrdn_user_password> (The DSMgrdn user is specified in the command line; for example, -DSMgrdn cn=orcladmin.)
-ecsm	-csmid <password_for_new_csm>

Configuring the Oracle Calendar Server

This section describes configuration changes you might need to make to the Oracle Calendar server after installing and, as the case may be, after upgrading.

This section contains the following topics:

- [Checking Port Values](#)
- [Opening the Oracle Calendar Administrator](#)
- [Setting up Resource Approval](#)
- [Enabling Wireless Capability](#)
- [Working with LIBPATH](#)

Checking Port Values

The default ports used by the Oracle Calendar server are:

Port	Function
5730	Calendar Engine
5731	Synchronous network connector
5732	Directory access server
5734	Calendar server manager

If these ports are already in use, the installation will use the next available port. Please verify `unison.ini` for the values used by the Oracle Calendar server.

Opening the Oracle Calendar Administrator

Use the Oracle Calendar Administrator to manage users, events, resources, and public agendas, as well as perform administrative tasks. By default, you can open it at the following URL:

```
https://Web_server_host:https_port/ocad-bin/ocad.cgi?object=nodeadm
```

To log on to the Oracle Calendar Administrator, enter the Oracle Calendar administrative password you chose during installation. Do not enter a user name with this password.

See Also: *Oracle Calendar Administrator's Guide* for information on how to use the Oracle Calendar Administrator

Setting up Resource Approval

If you intend to use resource approval, you need to set it up as follows:

1. Create or modify a resource with NOTIFY-APPROVER set to TRUE and APPROVER-EMAIL set to e-mail of the approver. For example, in ocal/bin:

```
uniuser -resource -add R=Resource_Approval/NOTIFY-APPROVER=TRUE/APPROVER-EMAIL=
approver.email@oracle.com/psw=password -n 4313 -p test1
```

2. Assign Resource designate rights; for example, in ocal/bin

```
uniaccessrights -mod -designate ALL=TRUE -grantee S=Designate/NODE-ID=4313
-grantor R=Resource_Approval -n 4313 -p test1
```

3. Also make sure that the RESOURCE_APPROVAL section exists in unison.ini (located in ocal/misc) with the url parameter; for example:

```
[RESOURCE_APPROVAL]
url=http://server:port/ocas-bin/ocas.fcgi
```

4. If you changed the resource approval URL, restart the Oracle Calendar server.

Enabling Wireless Capability

To make sure your Oracle Calendar server is wireless-enabled and pointing to a valid wireless server that is up and running, open \$ORACLE_HOME/ocal/misc/unison.ini and set the following parameters:

```
[CWS]
smtpmail = TRUE
smsnotifyprogramparam = " -host WIRELESS_HOST -port Calendar_listener_port"
smsnotifyprogram = $ORACLE_HOME/ocal/sbin/sendalert
.
.
.
[NOTIFY]
sms = TRUE
alert_server = "IASW"
```

Save your file and restart your Oracle Calendar server.

Make sure the wireless server is properly configured. For more information, see the documentation included with the wireless server.

Working with LIBPATH

Any values added to the LIBPATH environment variable, such as to configure security mechanisms, are cleared by the Oracle Calendar server. Instead, add the values to OCAL_ADDITIONAL_LIBPATH.

Starting and Configuring the Oracle Calendar Application System

Generally, the Oracle Calendar application system should successfully start when you start the Web server, using the default installation settings. The following sections explain how to check the application system's status and make configuration changes to it if necessary.

This section contains the following topics:

- [Checking the Status of the Oracle Calendar Application System](#)
- [Configuring the Oracle Calendar Application System](#)

Checking the Status of the Oracle Calendar Application System

To see if the application system and its components are running, open the system page at `http://server_name:port/ocas-bin/ocas.fcgi?sub=sys`. If a component is not running, it will not appear in the system page.

To connect to a component with an appropriate application system, use the following URLs:

Component	URL
Sync Server	<code>http://host:port/ocst-bin/ocas.fcgi</code>
Web services	<code>http://host:port/ocws-bin/ocas.fcgi</code>
Oracle Calendar Web client	<code>http://host:port/ocas-bin/ocas.fcgi?sub=web</code>

Configuring the Oracle Calendar Application System

The Oracle Calendar application system and its components are controlled with the following configuration files under `$ORACLE_HOME/ocas/conf`:

ocas.conf: client

ocws.conf: web services

ocst.conf: Sync Server

ocwc.conf: Oracle Calendar Web client

ocal.conf: Web server FastCGI directives, included from `httpd.conf`

Consider the following configuration options, depending on your environment:

- Run several instances of `ocas.fcgi` (the number of instances depends on setup and load). You can configure this in `ocal.conf`.
- You need to run one instance of `ochecklet.fcgi` for each installation and host. This is also configured in `ocal.conf`.
- To redirect the Web client from a custom URL, add the following statement to `ocal.conf`:


```
<Location /calendar>
```

```

Redirect permanent /calendar \
    http://<host>:<port>/ocas-bin/ocas.fcgi?sub=web
</Location>

```

- In order to use the Sync Server, set the `KeepAlive` parameter in `httpd.conf` or `apache.conf` to 300 seconds, or turn it off. This is done to correspond to the `idle-timeout` value of 300 seconds in `ocal.conf`.
- Ensure that the `linkdb` and `sessiondb` variables in all hosts' `ocas` files refer to the same path; for example, the same NFS mount.
- Set Authentication, Compression and Encryption (ACE) values in each component's `conf` file. AUTH Web settings for all products must be configured in the `[ACE_PLUGINS_CLIENT]` section of `ocas.conf`.
- If you experience any problems, check for error messages in:

```
$ORACLE_HOME/ocas/logs/ocas_log
```

Ensure that you restart your Web server after any changes to the `conf` files.

Installing the Oracle Calendar Resource Kit

The Oracle Calendar Resource Kit is a tool that administrators can use to provide their end users with information on the Oracle Calendar application system. This information includes product overviews, system requirements, installation instructions, frequently asked questions and troubleshooting for the following clients.

- Oracle Connector for Outlook
- Oracle Calendar Web client
- Oracle Calendar desktop client
- Oracle Calendar Sync
- Oracle Sync Server

The Oracle Calendar Resource Kit can be made available to end users by including it in the Oracle*9i*AS Portal. Currently, the kit is located in `ROOT_OF_CD_DISK1/doc/admin/resource_kits` directory.

Provisioning the orclgquest Account with Multiple Instances of Oracle Calendar

If you install two instances of Oracle Calendar on the same infrastructure, the `orclgquest` account may not be provisioned for the second instance. Follow these steps to create another test user account for the second calendar instance.

Note: These steps should also be followed if `orclgquest` was never created.

1. Create a user in Oracle Internet Directory using Oracle Delegated Administration Services at the following URL:

```
http://Oracle_Internet_Directory_host_name:port_number/oiddas
```

2. Provision calendar service to this user using the Oracle Calendar Administrator from the following URL:

```
http://Oracle_Calendar_host_name:port_number/ocad-bin
/ocad.cgi?object=nodeadm
```

See Also: *Oracle Calendar Administrator's Guide*, Chapter 8, "Calendar Users"

Configuring Oracle Calendar E-Mail Delivery

This section describes configuration changes for enabling or optimizing delivery of Oracle Calendar e-mail.

This section contains the following topics:

- [Configuring Event Notifications when Oracle Calendar and Oracle Email are on the Same Host](#)
- [Configuring Event Notifications when Oracle Calendar and Oracle Email are on Separate Hosts](#)
- [Setting the Mail Domain Name](#)

Configuring Event Notifications when Oracle Calendar and Oracle Email are on the Same Host

If Oracle Calendar and Oracle Email (also known as Unified Messaging) are installed on the same host, you must make some changes to the `sendmail.cf` file and reinitialize the inbound SMTP service to enable delivery of Oracle Calendar event notification e-mail messages.

This section contains the following topics:

- [Editing the `sendmail.cf` File](#)
- [Reinitializing the Unified Messaging Inbound SMTP Service](#)

Editing the `sendmail.cf` File

The following steps describe how to edit the `sendmail.cf` file when Oracle Calendar and Oracle Email are installed on the same host. The `sendmail.cf` file is located in the `/etc/mail` directory on Solaris systems, or the `/etc` directory on Linux systems. You must be logged in as `root` to do this.

1. Open the `sendmail.cf` file as `root` and locate the line that contains **DH**.
2. Add the middle tier host name to the end of the line, as follows:


```
DHmiddletier_host
```
3. Comment out the following lines in the `# short circuit local delivery so forwarded email works` section:


```
R$L < @ $=w . > $#local $: @ $1 special local names
R$+ < @ $=w . > $#local $: $1 regular local name
```
4. In the `sendmail.cf` file, add the `k` flag to the `F=` parameter of `Msmtp` or `Mesmtpt`, depending on which is being used:

Keyword	Parameters
<code>Msmtp</code> ,	<code>P=[IPC], F=mDFMuXk, S=EnvFromSMTP/HdrFromSMTP, R=EnvToSMTP, E=\r\n, L=990, T=DNS/RFC822/SMTP,</code>

Keyword	Parameters
	A=TCP \$h
Mesmtpt,	P=[IPC], F=mDFMuXak, S=EnvFromSMTP/HdrFromSMTP, R=EnvToSMTP, E=\r\n, L=990, T=DNS/RFC822/SMTP, A=TCP \$h

5. Save and close the `sendmail.cf` file.

Reinitializing the Unified Messaging Inbound SMTP Service

The following steps describe how to edit and reinitialize the Unified Messaging Inbound SMTP service target when Oracle Calendar and Oracle Email are installed on the same host.

1. Log in to the Oracle Enterprise Manager on the middle tier at the following URL:
`http://middletier_host:1810/`
2. Click the middle tier host to display the target page.
3. Click **Unified Messaging**.
4. Click **Unified Messaging Inbound SMTP** to display the Process Instance page.
5. Click the SMTP instance in the **Select Instance** list.
6. In the **Rules and Spam Management** section, locate the **Recipient Rewriting Rules** field and enter the following:

```
$*@middletier_host.fully_qualified_domain, $1@domain
```

Note: If you have multiple domains, you must enter a rule for each.

7. Click **Apply**.
8. In the navigation path at the top of the page, click **Unified Messaging Inbound SMTP**.
9. Click **Reinitialize**.
10. Click **OK**.

In most cases, the previous steps are sufficient, and e-mail notification should work. However, if event notifications are still not being delivered, the following additional steps may be necessary:

1. Update the local host file (`/etc/hosts`) and add an alias for the host name.
2. In the `sendmail.cf` file, disable `mxlookup` by adding `0` to the `F=` parameter of `Msmtp` or `Mesmtpt`, depending on which is being used:

Keyword	Parameters
Msmtp,	P=[IPC], F=mDFMuXk0, S=EnvFromSMTP/HdrFromSMTP, R=EnvToSMTP, E=\r\n, L=990, T=DNS/RFC822/SMTP, A=TCP \$h
Mesmtpt,	P=[IPC], F=mDFMuXk0, S=EnvFromSMTP/HdrFromSMTP, R=EnvToSMTP, E=\r\n, L=990, T=DNS/RFC822/SMTP, A=TCP \$h

3. Save and close the `sendmail.cf` file.

Configuring Event Notifications when Oracle Calendar and Oracle Email are on Separate Hosts

The following procedure optimizes delivery of Oracle Calendar Web client event notifications sent to users who are not using Oracle Email. This modification should be made when Oracle Calendar and Oracle E-Mail are installed on separate hosts. You must be logged on as `root`, so that you can edit the `sendmail.cf` file, located in the `/etc/mail` directory on Solaris systems, or the `/etc` directory on Linux systems.

1. Open the `sendmail.cf` file as `root`.
2. Make the following change:

```
# who gets all local email traffic ($R has precedence for unqualified names)
# DH
DHsmtpmidtierhost
```

Where `smtpmidtierhost` is the fully qualified name of the middle tier's SMTP server.

3. Save and close `sendmail.cf`.

Setting the Mail Domain Name

If e-mail sent by the Oracle Calendar server appears to come from the server's name rather than the desired domain name, make the following change to `sendmail.cf` in the `/etc/mail` directory on Solaris systems, or the `/etc` directory on Linux systems.

1. Open the `sendmail.cf` file as `root`.
2. Make the following change:

```
# who I masquerade as (null for no masquerading) (see also $=M)
DMdomainname
```

Where `domainname` is the mail domain name from which e-mail should appear to be sent.

3. Save and close `sendmail.cf`.

Configuring Oracle Email

This chapter discusses the administration tools and explains how to configure, start up, shut down, and reinitialize the Oracle Email system.

This chapter contains the following topics:

- [Pre-Configuration Checklist](#)
- [Configuring Oracle Email](#)
- [Using the Administration Tools](#)
- [Starting Up, Shutting Down, and Reinitializing Oracle Email](#)
- [Manually Configuring Oracle Email](#)

Pre-Configuration Checklist

This section describes pre-configuration procedures that must be done prior to configuring Oracle Email.

This section contains the following topics:

- [Verifying the Java and Oracle Text Options on the Information Store Database](#)
- [Verifying and Starting the Oracle9iAS Infrastructure and Application Servers](#)
- [Registering the Database with Oracle Internet Directory](#)
- [Setting the Database init.ora Parameters on the Information Storage Database](#)
- [Creating Information Storage Tablespaces and Schema](#)

Verifying the Java and Oracle Text Options on the Information Store Database

The Java and Oracle Text options are installed by default when Oracle Email is installed. The installation fails, however, if the database user CTXSYS is not present at the time of installation.

To verify that the Java and Oracle Text Options were installed and configured on the information storage database, run the following SQL query as sysdba:

```
SQL> select comp_id, status from dba_registry;
```

If the Java and Oracle Text options were installed correctly, an output similar to the following displays:

```
COMP_ID          STATUS
-----
...
```

JAVAVM	VALID
...	
CATJAVA	VALID
...	
CONTEXT	VALID

If the options are not installed and configured on the information storage database, they must be installed and configured manually.

Verifying and Starting the Oracle9i/AS Infrastructure and Application Servers

Verify that the infrastructure and application servers are running:

```
% ps -ef | grep http
```

To start the infrastructure and application servers:

```
% $ORACLE_HOME/opmn/bin/opmnctl startall
```

Registering the Database with Oracle Internet Directory

Note: This section only applies if you are not using the information storage database supplied with the Oracle Collaboration Suite installation. If you installed the information storage database from the Oracle Collaboration Suite Information Storage CD, you do not need to register the database with Oracle Internet Directory.

An Oracle9i Database is required to install the information store. Before a database can be configured as an information store, it must be registered with the Oracle Internet Directory infrastructure. If the database is not already registered with Oracle Internet Directory, it can be registered using the Oracle database configuration assistant. Once the database is registered with Oracle Internet Directory, any changes to the connect identifier can be made using Oracle Net Manager.

To register the information store database with the Oracle Internet Directory infrastructure, the following procedures must be performed using the Oracle Net configuration assistant and the database configuration assistant:

- [Running the Oracle Net Configuration Assistant](#)
- [Running the Database Configuration Assistant](#)

Running the Oracle Net Configuration Assistant

To run the Oracle Net configuration assistant:

1. Start the Oracle Net configuration assistant:

```
$ORACLE_HOME/bin/netca
```

2. Select **Directory Service Usage Configuration**.
3. Click **Next**.
4. Select **Select the directory server you want to use**. The directory server must already be configured for Oracle usage.
5. Click **Next**.

6. Select Oracle Internet Directory as the directory server you want to use.
7. Click **Next**.
8. Enter connect information for the Oracle Internet Directory infrastructure.
9. Click **Next**.
10. Select the root OracleContext (cn=OracleContext) as the default Oracle Context in the directory and finish the Oracle Net configuration assistant configuration.

Running the Database Configuration Assistant

To run the database configuration assistant:

1. Start the database configuration assistant to register the information storage database with Oracle Internet Directory infrastructure.

```
$ORACLE_HOME/bin/dbca
```

2. Select **Configure database** option in the database.
3. Click **Next**.
4. Select the information store database instances.
5. Click **Next**.
6. In the Directory Services screen, Select the **Yes, register the database**.
7. Enter a user DN and password to connect to the Oracle Internet Directory infrastructure. For example, acmeadmin.
8. Complete the database configuration assistant configuration.

Setting the Database `init.ora` Parameters on the Information Storage Database

Set the database `init.ora` parameters on the information storage database to the following values:

```
processes=150 or higher
open_cursors=300 or higher
dml_locks=200 or higher
shared_pool_size=32000000 or higher
java_pool_size=40000000 or higher
```

Creating Information Storage Tablespaces and Schema

The Oracle Email configuration wizard creates tablespaces and schema for the information store. If you want to customize tablespace storage parameters or data files, you can create them before running configuration wizard.

For the names of information store tablespaces and their default storage parameters refer to the `$ORACLE_HOME/oes/install/sql/tblspc.sql` script.

There is a tablespace named `ESTERSTORE` that is reserved for tertiary storage of old messages. To enable tertiary storage, pre-create the `ESTERSTORE` tablespace on a different disk prior to installation. After which, create an instance of the housekeeping server with the `Tertiary Store` parameter enabled, and set the `Tertiary Storage Age Threshold` parameter to the desired age value in terms of number of days (the default is 30). The housekeeping server instance automatically moves messages periodically.

Note: If you pre-create tablespaces, the Oracle Email configuration wizard log shows some errors indicating tablespace creation failed. These errors can be ignored.

See Also: *Oracle Email Administrator's Guide* for more information on tertiary storage and how to configure server processes

Configuring Oracle Email

This section describes how to configure the Oracle Email information store and middle tier servers using the graphical interface provided by the `umconfig.sh` script.

This section contains the following topics:

- [Configuring the Oracle Email Information Storage Database](#)
- [Configuring the Oracle Email Middle Tier](#)

Note: The information store and middle tier must both be installed before you start the configuration. Also, you must configure the information storage database before you configure the middle tier.

Configuring the Oracle Email Information Storage Database

Configuring the information storage database does the following:

- Creates tablespaces for the mail schema
- Creates mail tables and indexes
- Loads mail related PL/SQL packages
- Loads mail related stored Java procedures
- Configures the information storage database with Oracle Internet Directory

To configure the Oracle Email information storage database, perform the following steps on the middle tier server:

1. Run the `umconfig.sh` script located on the Oracle Collaboration Suite middle tier.

```
$ORACLE_HOME/oes/bin/umconfig.sh
```

The Unified Messaging Configuration screen displays.

2. Select **Mail Store Database Configuration**.
3. Click **Next**. The Mail Store Database Configuration screen displays.
4. Enter the following information in the corresponding fields:

Field	Description
Database Hostname	The name of the system on which the database is located.
SID	The system identifier of the information store.
Port Number	The port number on which the listener is listening.
system_password	The system password for the host database.

5. Click **Next**. The CTXSYS Password screen displays. If the CTXSYS password is locked and needs to be reset, it will prompt you for password confirmation. Enter the CTXSYS password. The default password is CTXSYS.
6. Click **Next**. The ES_Mail Password screen displays.
7. Enter the ES_MAIL password and confirm it. If an ES_MAIL password is not entered, the default is es.

Note: The information store schema is owned by the ES_MAIL database user.

8. Click **Next**. The UMADMIN Password screen displays.

Note: UMADMIN is an administrator account created on the Oracle Internet Directory server during the application server installation of Oracle Email. The account owns specific Oracle Email entries in the directory. After installation, administrators should log in to the administration tool using the UMADMIN account and create an initial Oracle Email user. Thereafter, they can delegate system and domain administration responsibilities to other users.

9. Enter the UMADMIN password and confirm it. If a password is not entered, the default value welcome is stored in Oracle Internet Directory and the database as the UMADMIN password.
10. Click **Next**. The Create Unified Messaging Domain screen displays.
11. Enter a domain name to be used for users' e-mail addresses.

Caution: If you mistype the domain name and therefore create a bad domain, run the following command to correct the domain name:

```

$ORACLE_HOME/oes/bin/install_createdomain.sh UM_SYSTEM
domain_name

```

12. Click **Next**. The Configuration Tools screen displays and the information store configuration begins.

Once the information store configuration is complete, the End of Installation screen displays.

13. Inspect the log files created by `umconfig.sh` for errors. The log files are located in the following directory:

```
$ORACLE_HOME/oes/log/
```

14. Inspect the installation logs in the following directory:

```
/var/opt/oracle/oraInst.loc/logs
```

15. If you are not using the information storage database that is provided on the Oracle Collaboration Suite information Storage CD-ROM, perform the procedures described in the following topics:

- [Installing the umbackend Component](#)

- [Loading the SQL Scripts for umbackend](#)

Installing the umbackend Component

Note: If the information storage database was not installed from the Oracle Collaboration Suite Information Storage CD and the Oracle Collaboration Suite middle tier and information store are installed on different operating systems, then the `umbackend.tar` file must be downloaded from the Oracle Technology Network Web site.

To install the umbackend component:

1. If the Oracle Collaboration Suite middle tier and information store are installed on the same operating system (or platform), copy the `umbackend.tar` file from the `$ORACLE_HOME/oes` directory on the middle tier to the `$ORACLE_HOME` on the information storage database.

If the Oracle Collaboration Suite middle tier and information store are installed on different operating systems, then you must download `umbackend.tar` for the same operating system as the information store from the Oracle Technology Network (OTN).

2. Untar the `umbackend.tar` file:

```
tar xvf umbackend.tar
```

3. Start the Oracle Universal Installer:

```
cd backend/Disk1  
./runInstaller
```

4. Follow the screen prompts to complete the Oracle Email back-end installation.

Loading the SQL Scripts for umbackend

To load the SQL scripts for umbackend:

1. Change to the `$ORACLE_HOME/oes/install/sql` directory on the information storage database.
2. Run SQL*Plus and log in to the database as `sys`.
3. Load the `install_backend_sys.sql` script.
4. Run SQL*Plus and log in to the database as the `es_mail` user.
5. Load the `install_backend_es_mail.sql` script.

Note: These scripts must be run only if the information store was not installed from the Oracle Collaboration Suite Information Storage CD.

Configuring the Oracle Email Middle Tier

Configuring the middle tier does the following:

- Configures the middle tier with Oracle Internet Directory
- Configures the middle tier with the information storage database

- Creates Oracle Email server instances

To configure the Oracle Email middle tier servers:

1. Shut down any applications that use port 25.
2. Run the `umconfig.sh` script located on the application server:

```
$ORACLE_HOME/oes/bin/umconfig.sh
```

The Unified Messaging Configuration screen displays.

3. Select **Middle Tier Configuration**.
4. Click **Next**. The Mail Store Database screen displays.
5. Select the global name of the database to be used by this middle from the drop-down list.

Note: If the `UMADMIN` password and the domain name were specified during the information store configuration, the next screen that displays is the Start Processes screen. Otherwise, you must specify the `UMADMIN` password and the domain name.

6. Click **Next**. The Create Unified Messaging Domain screen displays.
7. Enter the name of the domain that is to be used as the local domain for SMTP and the List Server. This domain is used for users' e-mail addresses.
8. Click **Next**. The Start Processes screen displays.
9. Select **Yes** to automatically start the Oracle Email server processes after the configuration is complete. Otherwise, select **No**.
10. Click **Next**. The Configuration Tools screen displays and the middle tier configuration begins.

Once the middle tier configuration is complete, the End of Installation screen displays.

11. Inspect the log files for errors. The log file for `umconfig.sh` is located in the following directory:

```
$ORACLE_HOME/oes/log/
```

12. Inspect the installation logs in the following directory:

```
/var/opt/oracle/oraInst.loc/logs
```

Using the Administration Tools

This section describes the different administration tools used to administer the Oracle Email system.

This section contains the following topics:

- [Oracle Enterprise Manager](#)
- [Oracle Email Webmail Client](#)

Oracle Enterprise Manager

See Also: *Oracle9i Application Server Administrator's Guide* for more information about Oracle Enterprise Manager

Oracle Enterprise Manager is a Web-based tool that enables administrators to perform some of the management tasks for the Oracle9i Database and Oracle9i Application Server. The Oracle Enterprise Manager can be used to administer Oracle Email service processes.

Through Oracle Enterprise Manager, administrators can perform the following tasks on an Oracle Email system:

- Startup
- Shutdown
- Reinitialize
- Modify default parameters

To perform administration tasks for Oracle Email through Oracle Enterprise Manager, navigate to the following URL:

`http://host_name:1810`

Oracle Email Webmail Client

See Also: *Oracle Email Administrator's Guide* for more information on domain and user provisioning

Using the Oracle Email Webmail client, administrators can perform domain and user provisioning tasks. Through the Oracle Email Webmail client, administrators can do the following:

- Create and modify domain settings for users and distribution lists
- Create, delete, modify, and view e-mail, fax users, voice mail users, and distribution lists
- Add and delete members to and from distribution lists
- View all the distribution lists of which a specific user is a member
- Create, delete, modify, and view server-side filters
- Create, delete, and modify lists

To perform administration tasks for Oracle Email using the Webmail client, navigate to the following URL:

`http://host_name:port_number/um/traffic_cop`

Where:

- *host_name* is the name of the host on which the Middle Tier is installed
- *port* is the Oracle Web Cache port number

Starting Up, Shutting Down, and Reinitializing Oracle Email

This section explains how to start, stop, and reinitialize the Oracle Email system.

This section contains the following topics:

- [Verifying and Starting the Oracle Net Listener for the Information Store](#)
- [Verifying and Starting the Listener for the Middle Tier](#)
- [Starting the Oracle Email System](#)
- [Stopping the Oracle Email System](#)
- [Reinitializing the Oracle Email System](#)
- [Creating a Public User](#)

See Also: *Oracle Email Administrator's Guide* for more information on how to start up, shut down, and reinitialize individual processes

Verifying and Starting the Oracle Net Listener for the Information Store

Oracle Net Listener must be running on the information store database so that the system can establish database connections from the Oracle Email system and clients.

To verify that the listener is running:

```
% $ORACLE_HOME/bin/lsnrctl status
```

If the computer returns a message that contains the line `no listener`, the listener must be started.

To start the listener:

```
% $ORACLE_HOME/bin/lsnrctl start
```

See Also: *Oracle10i Net Services Administrator's Guide* for additional information on starting the listener

Verifying and Starting the Listener for the Middle Tier

To verify that the listener is running:

```
% lsnrctl status
```

If the computer returns a message that contains the line `no listener`, the listener must be started.

To start the listener:

1. Configure the listener with protocol addresses and other configuration parameters, using the Oracle Net configuration assistant or Oracle Net Manager.

See Also: *Oracle10i Net Services Administrator's Guide*, for listener configuration information

2. Log in as superuser (`root`) and set file ownership and access permissions for the listener executable (`tnslsnr`) and its dependent shared libraries so that these files can be modified only by the superuser. The `tnslsnr` is located in the `$ORACLE_HOME/bin` directory.
3. Verify that the permissions of the individual directories found in the path names to these files, starting with the root directory, are modified in the same way.
4. Start the listener as `root`. Ensure that the `ORACLE_HOME` environment variable is set to the `$ORACLE_HOME` directory. At the operating system prompt, enter the following command with optional command line arguments.

```
tnslsnr [listener_es] [-user user] [-group group]
```

Argument	Description
<code>-user user</code>	The numerical identification of the UNIX account that owns the Oracle software.
<code>-group group</code>	Specifies the numerical identification of the UNIX group to which the Oracle owner belongs.

Starting the Oracle Email System

Starting an Oracle Email service starts all the processes comprising that service type, such as IMAP4 and SMTP.

Using Oracle Enterprise Manager, perform the following procedure to start an Oracle Email system:

1. Navigate to the Oracle9i Application Server home page
2. Select **Unified Messaging**.
3. Click **Start**.

Stopping the Oracle Email System

Stopping an Oracle Email system sends a request to the operating system to shut down all of the Oracle Email processes. One reason an administrator would want to stop the Oracle Email system is to perform maintenance on the system, such as upgrading the server hardware or software. It is not possible for the processes to be running while certain kinds of upgrades are performed.

Using Oracle Enterprise Manager, perform the following procedure to stop an Oracle Email system:

1. Navigate to the Oracle9i Application Server home page.
2. Select **Unified Messaging**.
3. Click **Stop**.

Reinitializing the Oracle Email System

Reinitializing an Oracle Email process informs the operating system to reload its operational settings from the Oracle Internet Directory server. The process does not stop running, which means that users continue to receive uninterrupted service. Whenever an Oracle Email process parameter is modified, it must be reinitialized for the changes take effect.

Using Oracle Enterprise Manager, perform the following procedure to reinitialize an Oracle Email process:

1. Navigate to the Oracle9i Application Server home page.
2. Select **Unified Messaging**.
3. Click **Restart**.

Creating a Public User

After configuring Oracle Email, administrators must create a public user account on Oracle Internet Directory using Oracle Delegated Administration Services. To do this, navigate to `http://infrastructure_host:port_number/oiddas`.

This public user corresponds with the initial user that will be created using the Webmail client administration tool.

See Also: *Oracle Internet Directory Application Developer's Guide* for more information on using Oracle Delegated Administration Services

Once the public user has been created, navigate to `http://host_name:port_number/um/admin/UMAdminLogin.uix`, to create the initial domain and user.

See Also: *Oracle Email Administrator's Guide* for more information on creating the initial domain and user

Manually Configuring Oracle Email

This section describes how to manually configure Oracle Email without running `umconfig.sh`. The procedures are particularly useful when you need to add additional computing resources for the information storage database or middle tier server.

This section contains these topics:

- [Manually Configuring the Webmail Client](#)
- [Manually Configuring the Oracle Email Information Storage Database](#)
- [Manually Configuring the Oracle Email Middle Tier](#)

Manually Configuring the Webmail Client

The Webmail client is automatically configured the first time you run `umconfig.sh`. However, if you are performing the entire Oracle Email configuration manually, without using the graphical interface provided by `umconfig.sh`, enter the following to configure the Webmail client:

```
if [ -f $ORACLE_HOME/j2ee/OC4J_UM/config/application.xml ] && [ ! -f $ORACLE_
HOME/j2ee/OC4J_UM/config/application.xml.pre_libmod ]
then
    $ORACLE_HOME/um/scripts/webmail_library_mods.sh $ORACLE_HOME
    $ORACLE_HOME/opmn/bin/opmnctl restartproc type=oc4j gid=OC4J_UM
fi
```

Manually Configuring the Oracle Email Information Storage Database

Enter the following to configure the Oracle Email information storage database using the command line instead of the graphical interface provided by `umconfig.sh`:

```
%cd $ORACLE_HOME/oes/bin
%install_mailstore.sh connect_str \
%sys_password \
%system_passwd \
%CTXSYS_passwd \
%mail_store_SID \
%host_name \
%port_number \
%installation_name \
%ORACLE_HOME \
%es_mail_passwd \
%umadmin_passwd \
```

```
%oid_flag \  
%domain_name
```

The following table lists the variables and a description of their expected values:

Variable	Description
<i>connect_str</i>	Information store database connect string
<i>sys_password</i>	SYS password for the host database
<i>system_passwd</i>	SYSTEM password for the host database
<i>CTXSYS_passwd</i>	Password for the Oracle Text account
<i>mail_store_SID</i>	Information storage database SID
<i>host_name</i>	Information storage database host name
<i>port_number</i>	Information storage database port number. The default value is 1521.
<i>installation_name</i>	Name of the installation. The default value is UM_SYSTEM
<i>ORACLE_HOME</i>	Oracle home specification
<i>es_mail_passwd</i>	Password for the ES_MAIL database user. If an ES_MAIL password is not entered, the default is es.
<i>umadmin_passwd</i>	UMADMIN is an administrator account created on the Oracle Internet Directory server during the application server installation of Oracle Email. It account owns specific Oracle Email entries in the directory. After installation, administrators should log in to the administration tool using the UMADMIN account and create an initial Oracle Email user. Thereafter, they can delegate system and domain administration responsibilities to other users. If a password is not entered, the default value welcome is stored in Oracle Internet Directory and the database as the UMADMIN password.

Variable	Description
<i>oid_flag</i>	<p>If Oracle Email entries have been created in Oracle Internet Directory, then the value is 1; otherwise it is 0.</p> <p>To determine if the Oracle Internet Directory infrastructure is configured for Oracle Email, run the following commands from the middle tier ORACLE_HOME.</p> <p>On UNIX:</p> <pre>rm \$ORACLE_HOME/oes/log/exists.txt java -classpath \$ORACLE_HOME/jlib/esinstall.jar:\$ORACLE_HOME/jlib /repository.jar:\$ORACLE_HOME/jlib/esldap.jar: \$ORACLE_HOME/jlib/jndi.jar:\$ORACLE_HOME/jlib/ldap.jar: \$ORACLE_HOME/jlib/providerutil.jar oracle.mail.install. ESDSInstallQuery \$ORACLE_HOME um_system.</pre> <p>After running this query, check if the <code>\$ORACLE_HOME/oes/log/exists.txt</code> file exists. If it exists, then the value of <i>oid_flag</i> should be 1; otherwise, the value is 0.</p> <p>On Windows:</p> <pre>del %ORACLE_HOME%\oes\log\exists.txt java -classpath %ORACLE_HOME%\jlib\esinstall.jar;%ORACLE_HOME%\jlib \repository.jar;%ORACLE_HOME%\jlib\esldap.jar; %ORACLE_HOME%\jlib\jndi.jar;%ORACLE_HOME%\jlib \ldap.jar;%ORACLE_HOME%\jlib\providerutil.jar oracle.mail.install.ESDSInstallQuery %ORACLE_HOME% um_system.</pre> <p>After running this query, check if the <code>%ORACLE_HOME%\oes\log\exists.txt</code> file exists. If the file exists, then the <i>oid_flag</i> value should be 1; otherwise it is 0.</p>
<i>domain_name</i>	<p>The name of the default domain to be created when the first information store is added, such as <code>acme.com</code>. If this is not the first information store, the domain name is ignored.</p> <p>Note: This domain must exist.</p>

Note: The default `INSTALLATION_NAME` is `UM_SYSTEM`.

Manually Configuring the Oracle Email Middle Tier

Enter the following to configure the Oracle Email middle tier using the command line instead of the graphical interface provided by `umconfig.sh`:

```
%cd $ORACLE_HOME/oes/bin
%install_middletier.sh connect_string \
%mail_store_SYSTEM_password
%installation_name \
%ORACLE_HOME \
%umadmin_passwd \
%OID_flag \
%global_db_name \
%domain_name \
%start_proc
```

The following table lists the variables and a description of their expected values:

Variable	Description
<i>connect_string</i>	The information storage database connect
<i>mail_store_SYSTEM_password</i>	The SYSTEM password for the information storage database
<i>installation_name</i>	Name of the installation. The default value is UM_SYSTEM
<i>ORACLE_HOME</i>	The Oracle home specification
<i>umadmin_passwd</i>	<p>UMADMIN is an administrator account created on the Oracle Internet Directory server during the application server installation of Oracle Email. This account owns specific Oracle Email entries in the directory. After installation, administrators should log in to the administration tool using the UMADMIN account and create an initial Oracle Email user. Thereafter, they can delegate system and domain administration responsibilities to other users.</p> <p>If a password is not entered, the default value <code>welcome</code> is stored in Oracle Internet Directory and the database as the UMADMIN password.</p>
<i>oid_flag</i>	<p>If Oracle Email entries have been created in Oracle Internet Directory, the value is 1. Otherwise, it is 0.</p> <p>To determine if the Oracle Internet Directory infrastructure is configured for Oracle Email, run the following commands from the middle tier <i>ORACLE_HOME</i>.</p> <pre>rm \$ORACLE_HOME/oes/log/exists.txt java -classpath \$ORACLE_HOME/jlib/esinstall.jar:\$ORACLE_HOME/jlib /repository.jar:\$ORACLE_HOME/jlib/esldap.jar: \$ORACLE_HOME/jlib/jndi.jar:\$ORACLE_HOME/jlib/ldap.jar: \$ORACLE_HOME/jlib/providerutil.jar oracle.mail.install. ESDSInstallQuery \$ORACLE_HOME um_system.</pre> <p>After running this query, check if the <code>\$ORACLE_HOME/oes/log/exists.txt</code> file exists. If it exists, the value of <i>oid_flag</i> should be 1, otherwise, the value is 0.</p>
<i>global_db_name</i>	The database global name. For example, <code>acmedb.foo.acme.com</code> .
<i>domain_name</i>	The local domain name. For example, <code>acme.com</code> .
<i>start_proc</i>	Specifies whether or not to start the procedure. Acceptable values are 0 and 1.

Configuring Oracle Files

This chapter guides you through the process of configuring Oracle Files.

This chapter contains these topics:

- [Overview of the Oracle Files Configuration Process](#)
- [Recommended Protocol Configurations](#)
- [Preconfiguration Tasks for Oracle Files](#)
- [Configure Oracle Files](#)
- [Non-Interactive Configuration of Oracle Files](#)
- [Setting Up Oracle Files Runtime](#)
- [Additional Post-Configuration Tasks](#)

Overview of the Oracle Files Configuration Process

The following steps are required to configure and run Oracle Files:

1. Run the Oracle Files configuration assistant.
See ["Configure Oracle Files"](#) on page 12-7.
2. Start the Oracle Files processes.
See ["Starting All Necessary Processes"](#) on page 12-25.
3. Create the Oracle Files subscriber.
See ["Creating the Oracle Files Subscriber"](#) on page 12-26.
4. Log in to Oracle Files as `orclguest` (or as an existing Oracle Internet Directory user).
See ["Validating Basic Operations"](#) on page 12-29.

See ["Setting Up Oracle Files Runtime"](#) on page 12-24 for more information about post-configuration tasks. See ["Additional Post-Configuration Tasks"](#) on page 12-30 for additional post-configuration tasks.

Recommended Protocol Configurations

The following describes security considerations for the protocols used to access Oracle Files.

1. FTP and AFP protocols send unencrypted user passwords across the network.

This is the defined behavior of these industry-standard protocols. Oracle has no control over this behavior, and it does not represent a defect in Oracle software. Sites unwilling to accept this behavior should either a) disable these protocols; or b) configure Oracle Files to use Oracle Files-specific user passwords for these protocols, so that users' Oracle*9i*AS Single Sign-On passwords are not compromised if FTP or AFP passwords are compromised.

To set Oracle Files-specific passwords, use the Protocol Access page in Oracle Files. See the Oracle Files online help for details.

2. The HTTP/DAV protocol allows both "basic" (unencrypted) and "digest" (encrypted) authentication.

"Basic" authentication sends unencrypted user passwords across the network unless HTTP/DAV uses SSL (Secure Sockets Layer). Apache configuration (performed separately from Oracle Files configuration) determines whether or not HTTP/DAV uses SSL. Sites concerned about HTTP/DAV "basic" authentication should configure Apache to use SSL.

3. The HTTP/DAV, FTP, SMB, AFP, NTFS, and NFS protocols do not encrypt the network channel by default.

Files transferred using these protocols are susceptible to interception. This is the defined behavior of these protocols. Oracle has no control over this behavior and it does not represent a defect in Oracle software. Sites unwilling to accept this behavior should disable these protocols and configure Apache to use SSL (HTTP/DAV only).

4. If authentication is performed using the Oracle Files Web User Interface HTML form, instead of Oracle*9i*AS Single Sign-On, unencrypted passwords are transmitted over the network unless Apache is configured to use SSL.
5. To administer Oracle Files using Oracle Enterprise Manager, a user authenticates using an HTML form. Unless Oracle Enterprise Manager is configured for SSL, unencrypted passwords are transmitted over the network.
6. By default, JDBC does not encrypt network connections between Oracle Files processes and the Oracle*9i* Database Server. This means that passwords and files being transferred are susceptible to interception. Either a) secure the network connection between the middle tier machines running Oracle Files (if any), or b) use Oracle Advanced Security to encrypt these connections.
7. When configuring Oracle Files to use Oracle Internet Directory for user authentication, the administrator must choose whether or not to use SSL for connections between Oracle Files and Oracle Internet Directory. If SSL is not used, unencrypted passwords can be sent over network connections between Oracle Files processes and Oracle Internet Directory. Either a) secure the network connection between Oracle Files and Oracle Internet Directory or b) use SSL.

Preconfiguration Tasks for Oracle Files

The Oracle Files configuration assistant starts automatically if you chose to configure Oracle Files as part of the installation process and guides you through the process of identifying the Oracle database to use for the Oracle Files schema and various other configuration tasks.

Before you configure Oracle Files, there are a number of preconfiguration tasks you might want to complete, depending on your planned deployment. To perform any of these tasks, either deselect the Oracle Files check box in the Oracle Universal Installer,

which stops the Oracle Files configuration assistant from starting, or cancel the Oracle Files configuration assistant when it starts.

After performing the desired preconfiguration task(s), you can then run the Oracle Files configuration assistant and configure Oracle Files. To run the Oracle Files configuration assistant, execute `ifsca` from the following location:

```

$ORACLE_HOME/ifs/files/bin

```

This section contains the following topics:

- [Using Oracle Database 10g with Oracle Files](#)
- [Create Custom Tablespaces \(Recommended\)](#)
- [Set Up Oracle Files to Use Real Applications Clusters Database \(Optional\)](#)

Table 12–1 lists recommended and optional preconfiguration tasks and provides information to help you determine whether or not a task is necessary to your deployment of Oracle Files.

Table 12–1 *Optional Preconfiguration Tasks for Oracle Files*

Optional Preconfiguration Task	Purpose
"Using Oracle Database 10g with Oracle Files" Steps for this task begin on page 12-4.	If you want to use Oracle Database 10g, you must perform this preconfiguration task. To use Oracle Database 10g with an existing Oracle Files installation, you must apply Oracle Collaboration Suite patch set Release 9.0.4.2.0. See the patch set documentation for more information.
"Create Custom Tablespaces (Recommended)" Steps for this task begin on page 12-5.	For a production environment, Oracle recommends creating custom tablespaces for the various tables and indexes that comprise the system. If you choose to create custom tablespaces, you must do so before configuring Oracle Files. You cannot use custom tablespaces that you create after configuring Oracle Files.
"Set Up Oracle Files to Use Real Applications Clusters Database (Optional)" Steps for this task begin on page 12-6.	If you know that you want to use a Real Application Clusters database with your initial deployment of Oracle Files, it is recommended that you perform this task prior to configuring Oracle Files.

Table 12–2 lists additional configuration and usage information for Oracle Files.

Table 12–2 *Important Information for Configuring and Running Oracle Files*

Topic	Location
Creating users in Oracle Internet Directory	"Creating Users in Oracle Internet Directory" on page 12-27
Provisioning users in Oracle Files	"Creating Users in Oracle Internet Directory" on page 12-27, and <i>Oracle Files Administrator's Guide</i>
Integrating Oracle Workflow with Oracle Files	"Integrating Oracle Workflow with Oracle Files (Optional)" on page 12-31

Table 12–2 (Cont.) Important Information for Configuring and Running Oracle Files

Topic	Location
Oracle Files configuration tasks involving Oracle Enterprise Manager	<i>Oracle Files Administrator's Guide</i>
Oracle Files Site Administrator and Subscriber Administrator information	" Creating the Oracle Files Subscriber " on page 12-26; <i>Oracle Files Administrator's Guide</i> and Oracle Files online help
Configuring the NFS server	<i>Oracle Files Administrator's Guide</i>
Installing the Oracle FileSync client	<i>Oracle Files Administrator's Guide</i>
Other client access paths and software	<i>Oracle Files Administrator's Guide</i>
Creating a Return to Portal link	" Adding the Return to Portal Link in the Oracle Files Web UI (Required) " on page 12-37

Using Oracle Database 10g with Oracle Files

Follow these steps if you have a new Oracle Files installation and you want to use Oracle Database 10g for your information storage database:

Note: To use Oracle Database 10g with an existing Oracle Files installation, you must apply Oracle Collaboration Suite patch set Release 9.0.4.2.0. See the patch set documentation for more information.

1. Install Oracle Database 10g from the Oracle Database 10g CD pack.
2. Set the following environment variables on the computer on which the Oracle Database 10g server is installed:
 - Set the LIBPATH to include the following:
\$ORACLE_HOME/lib32
 - Set the PATH to include the following:
\$ORACLE_HOME/ctx/bin
3. Ensure that the following database parameters are set on the computer on which the Oracle Database 10g server is installed:

Table 12–3 Required Database Parameters

Parameter Name	Minimum Value
aq_tm_processes	1
java_pool_size	30 MB
job_queue_processes	4
open_cursors	300
processes	100
session_max_open_files	50
shared_pool_size	50 MB (52428800 bytes)

The values listed in [Table 12-3](#) are minimum values for these parameters. You may want to increase these values as appropriate for your deployment.

4. On the computer on which the Oracle Database 10g server is installed, restart the database and the database listener.
5. Install the Oracle Collaboration Suite Release 9.0.4.1.0 middle tier.
6. Do not select the Oracle Files components for configuration during installation of the middle tier.

If the Oracle Files configuration assistant appears, click **Cancel**.

7. Apply Oracle Collaboration Suite patch set Release 9.0.4.2.0.
See the patch set documentation for more information.
8. Configure Oracle Files by executing `ifsca` from the following location:

```
$ORACLE_HOME/ifs/files/bin
```

For configuration instructions, see "[Configure Oracle Files](#)" on page 12-7.

Create Custom Tablespaces (Recommended)

During Oracle Files configuration, you must select whether to store all schema objects in the USERS tablespace, or in custom tablespaces. For a production environment, the USERS tablespace is not optimal. Oracle recommends creating custom tablespaces for the various tables and indexes that comprise the system (see [Table 12-4](#)) before attempting to configure Oracle Files.

To create custom tablespaces for Oracle Files, Oracle recommends that you create tablespaces as **locally managed tablespaces**.

Locally managed tablespaces track all extent information in the tablespace itself, using bitmaps, resulting in simplified space allocation, ease of management, and performance benefits.

Locally managed tablespaces have been available since Oracle8i, and beginning with the Oracle9i Database Server, locally managed is the default for all non-SYSTEM permanent tablespaces whenever the type of extent management is not explicitly specified.

An example of the SQL syntax is:

```
CREATE TABLESPACE "tbspname"
  LOGGING
  DATAFILE '/data1/oradata/sidname/tbspname_01.dbf' SIZE 50M EXTENT
  MANAGEMENT LOCAL
```

In this example, the `EXTENT MANAGEMENT LOCAL` clause is extraneous, since this is the default, but the full syntax is shown to highlight the fact that you need not provide segment, extent, and other sizing parameters.

- If you create locally managed custom tablespaces, the default options are recommended. Specifically, be aware that you should not specify automatic segment-space management for the tablespaces, because most Oracle Files data is stored as LOBs, and `AUTO SEGMENT SPACE MANAGEMENT` does not support LOBs.
- Create custom tablespaces on disk storage appropriate for your implementation. See the *Oracle Database Performance Tuning Guide and Reference* for more information.

Table 12–4 contains additional information about custom tablespaces. This table can be used to note the names and specifics of any custom tablespaces you create.

For more information about creating tablespaces and about locally managed tablespaces, see the *Oracle9i Database Administrator's Guide*.

Table 12–4 Custom Tablespace Definitions for Oracle Files

Tablespace	Description (default size)	Your Custom Tablespace Name
Primary	Stores metadata for documents, information about users and groups, and other Oracle Files object data. (50 MB)	
Non-Indexed Media	Stores LOB data for documents that are not indexed by Oracle Text, such as zip files. (50 MB)	
Indexed Media	Stores LOB data for documents indexed by Oracle Text, such as text and word processing files. (50 MB)	
interMedia Media	Stores LOB data for documents indexed by Oracle interMedia, such as image, audio, and video files. (50 MB)	
Oracle Text Index	Stores the Oracle Text tokens table. (50 MB)	
Oracle Text Keymap	Stores the index on the Oracle Text tokens table. (50 MB)	
Oracle Text Data	Stores other Oracle Text tables. (150 MB)	

Set Up Oracle Files to Use Real Applications Clusters Database (Optional)

You can choose to run Oracle Files against a Real Application Clusters database at any time, either preconfiguration or post-configuration.

However, if you know that you want to point to a Real Application Clusters database for your initial Oracle Files deployment, performing the following preconfiguration steps enables you to specify a Real Application Clusters database during the Oracle Files configuration process. Note that there are additional post-configuration tasks that must also be completed.

Important: In order to use Real Application Clusters, configuration of Oracle Files must be performed against a specific node in the target Real Application Clusters configuration, and this node must have load balancing disabled during the Oracle Files configuration process.

1. Set the following system parameter in the Real Application Clusters database:

```
MAX_COMMIT_PROPAGATION_DELAY=1
```
2. Ensure that the `JOB_QUEUE_PROCESSES` parameter is set to a value of 10 or higher.
3. Make a TNS entry in the `tnsnames.ora` file for load balancing and connection failover options in each Oracle home used by Oracle Files. Please see *Oracle9i Real Application Clusters Administration* for more information on making a TNS entry for these options.
4. Configure Oracle Files, specifying the name of the Real Application Clusters database on the Database Selection screen of the Oracle Files configuration assistant.
5. Perform required post-configuration steps.

See "Post-Configuration Steps for Using Oracle Files with a Real Application Clusters Database (Optional)" on page 12-36 for details.

Configure Oracle Files

The Oracle Files configuration assistant is started automatically by the Oracle Universal Installer, and guides you through the configuration options listed in [Table 12-5](#). The Oracle Files configuration assistant always begins with the Oracle Files CA - Welcome screen.

Using the Oracle Files configuration assistant, make your choices on each screen and click **Next** to continue. To configure Oracle Files at a later time, click **Cancel** to stop the assistant, and then run the configuration assistant by executing the `ifsca` script from the following location:

```
$ORACLE_HOME/ifs/files/bin
```

[Table 12-5](#) describes the types of configurations you can perform:

Table 12-5 Configuration Assistant Options

Configuration Type	Description	See Also...
Creating a New Oracle Files Domain	Creates a new Oracle Files schema in the database. Optionally configures the software required to include the computer as a middle tier in the domain .	" Creating a New Oracle Files Domain " on page 12-7
Setting Up a Computer to Use an Existing Domain	Configures Oracle Files software on the system for integration with an existing domain. Select this option if: <ul style="list-style-type: none"> ▪ You are adding additional middle tiers ▪ You are upgrading your Oracle Files schema from Oracle Collaboration Suite Release 1 (9.0.3) to Oracle Collaboration Suite Release 2 (9.0.4.1) 	" Setting Up a Computer to Use an Existing Domain " on page 12-21

To monitor the Oracle Files configuration assistant as it progresses, you can view the log as it is being written to the following file:

```
$ORACLE_HOME/ifs/files/log/FilesConfig.log
```

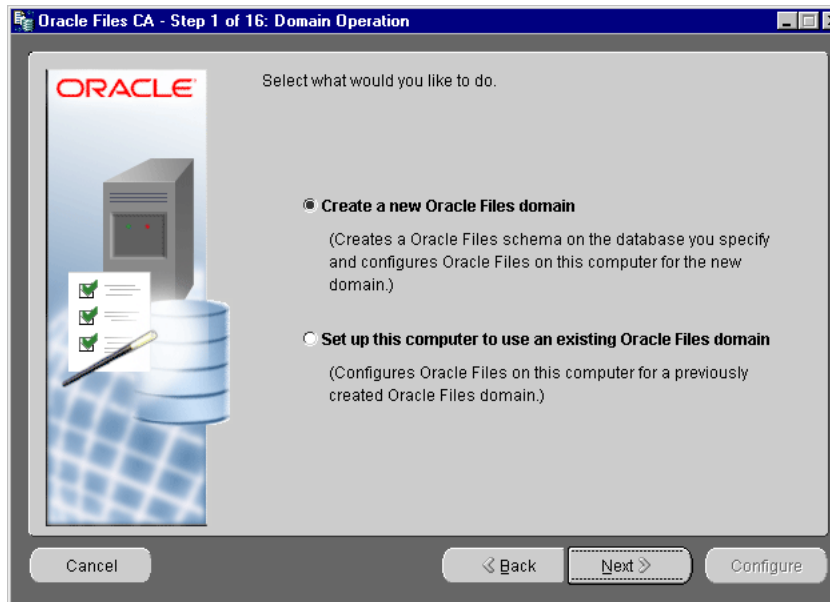
Creating a New Oracle Files Domain

These instructions guide you through the process of configuring the Oracle Files domain controller computer, which is typically the first computer in the domain that you are configuring.

The instructions begin from the Oracle Files configuration assistant Welcome screen.

1. Click **Next**.

The Domain Operation screen displays.

Figure 12–1 Domain Operation Screen

2. Select the **Create a new Oracle Files domain** option.

Important: If you upgraded your Oracle Files schema from Oracle Collaboration Suite Release 1 (9.0.3) to Oracle Collaboration Suite Release 2 (9.0.4.1), you must choose **Set up this computer to use an existing Oracle Files domain** on the Domain Operation screen, and reference the instructions for "[Setting Up a Computer to Use an Existing Domain](#)" on page 12-21.

3. Click **Next**.

The Database Selection screen displays.

Figure 12–2 Database Selection Screen

4. Enter the name of the host on which the database is running, the listener port number, the database service name, and the password for the database SYS user account.

Note: The database service name must be registered on the listener computer. To determine which services are registered, use the command `lsnrctl status` on the database server.

5. Click **Next**.

The Database Login Verifications message box displays while the CLASSPATH, database connection to the Oracle9i database, initialization parameters, Oracle JServer installation, and other important requirements are verified.

If an error occurs (for example, if JServer is not installed in the database, you see an error message related to the DBMS_JAVA package), you must cancel the Oracle Files configuration process, fix the error, then restart the Oracle Files configuration assistant by executing `ifsca` from the following location:

```
$ORACLE_HOME/ifs/files/bin
```

The Oracle Files configuration assistant attempts to make a connection as SYS AS SYSDBA using a database string, and therefore needs the database to be configured with a password file. If the following error message displays, then it is likely due to a missing password file on the database server:

```
Invalid password for Oracle user SYS
```

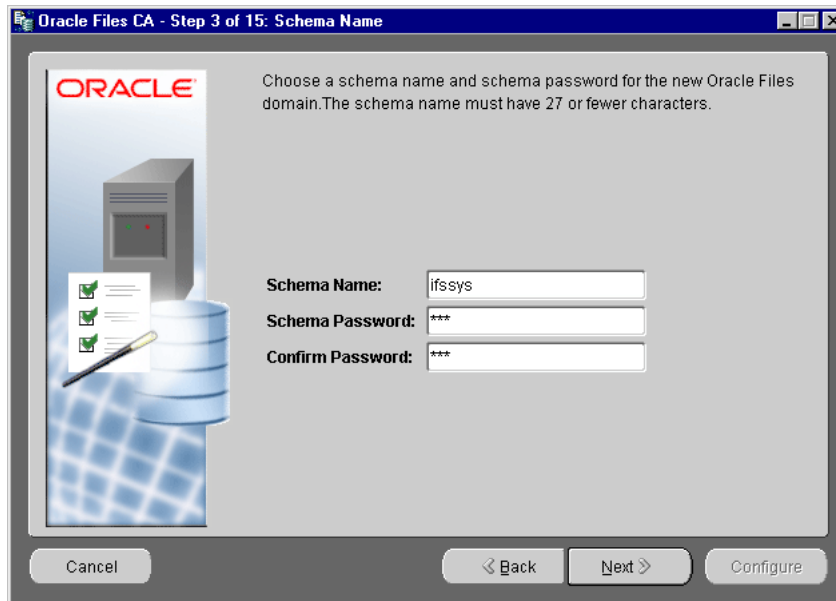
See Also: *Oracle9i Database Administrator's Guide* for more information about password file administration.

If additional errors occur, more information on why verification failed can be found in the `FilesConfig.log` file at the following location:

```
$ORACLE_HOME/ifs/files/log/FilesConfig.log
```

The Schema Name screen displays when the verification process completes.

Figure 12–3 Schema Name Screen



6. Enter a name to use for the Oracle Files schema. You must also provide a password for the schema. Enter the password in both fields to confirm.
7. Click **Next**.

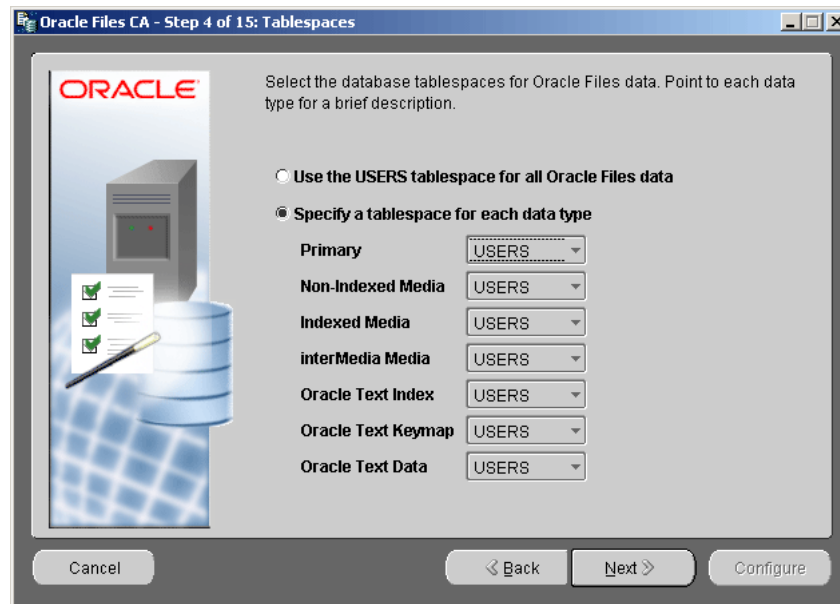
The Oracle Files configuration assistant checks to see if the schema name exists in the database. If it does exist, or if related schema names based on this schema name exist, a message box displays requesting further clarification.

8. In this message box:
 - Clicking **No** returns you to the Schema Name screen, where you can enter a new name for the schema.
 - Clicking **Yes** drops this schema and all related objects from the database, such as tables and views, and create a new schema.

Caution: Do not click **Yes** unless you are sure you want to drop this schema and all related objects from the database, and create a new schema. If you are upgrading Oracle Files, exit from the configuration assistant and run `ocsvua`. Follow the instructions in ["Setting Up a Computer to Use an Existing Domain"](#) on page 12-21.

The Tablespaces screen displays after you close the message box.

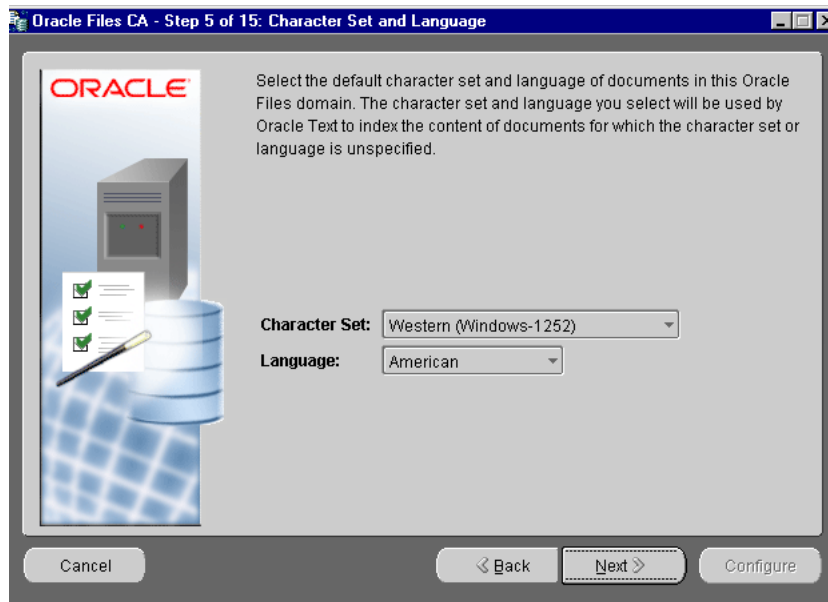
Figure 12-4 Tablespaces Screen



9. Select one of the following options:
 - Select **Use the USERS tablespace for all Oracle Files data** if you have *not* created custom tablespaces for Oracle Files content.

Important: Oracle corporation recommends that you create custom tablespaces for Oracle Files if you are configuring a production system. Create custom tablespaces as a preconfiguration step. See "[Create Custom Tablespaces \(Recommended\)](#)" on page 12-5 for more information.

- Select **Specify a tablespace for each data type** and choose the tablespaces you want to use for each type of content from the drop-down lists if you have created tablespaces specifically for Oracle Files content. The tablespaces must exist in order to select them for each data type; the Oracle Files configuration assistant does not create them.
10. Click **Next**. The Character Set and Language screen displays.

Figure 12–5 Character Set and Language Screen

11. Select the default character set and indexing language to use when storing documents in Oracle Files. The document character set defaults are used by client applications that do not specify a language or character set for documents being transferred to Oracle Files. The default character set is also used by non-Unicode enabled protocols, such as FTP and WebDAV, to determine the character set for these protocol servers to use.

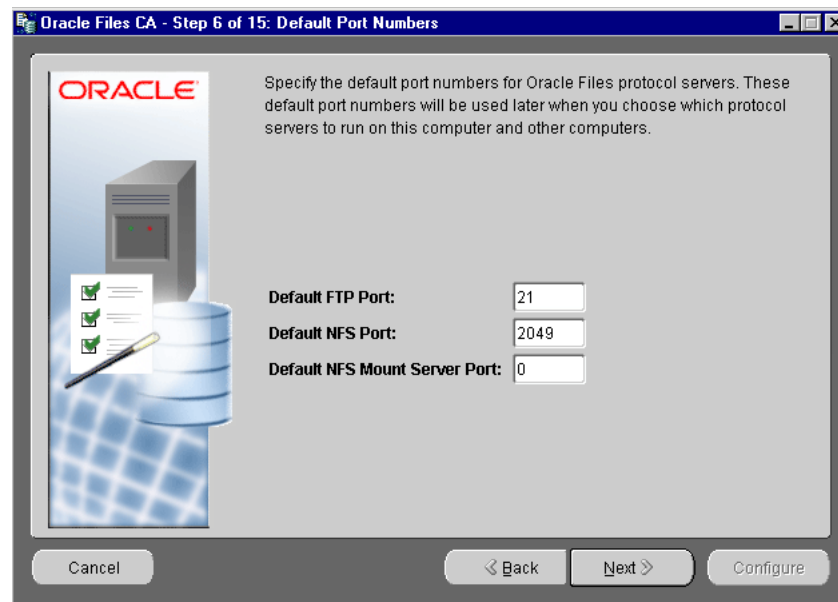
Oracle Corporation recommends setting the character set to the character set used by the majority of users in your Oracle Files domain.

See Also: "Multi_Lexer" in *Oracle Text Reference* for more information

12. Click **Next**.

The Default Port Numbers screen displays. The default port number settings are stored as an object for use by all middle tier computers that use the Oracle Files schema. After configuration of Oracle Files is complete, to change the configuration on any single middle tier computer, you must use the Enterprise Manager Web Site.

Figure 12–6 Default Port Numbers Screen



13. Change any of the port numbers as needed.

- To run both the native UNIX and the Oracle Files versions of specific protocol servers on this computer, you must change the port numbers to avoid conflicts. If you change the port numbers, the new port numbers are used for all middle tiers in the domain.
- If you change the main port for the NFS protocol server, you must also change the mount server port to a number other than 0. A value of 0 indicates that the mount server port number should be dynamically allocated by the port mapper, and should only be used when the NFS protocol server is on the standard NFS port number 2049.

See Also: *Oracle Files Administrator's Guide* for detailed information about setting up the NFS protocol server

- If you do not want to run the native UNIX implementations of the services, you can accept the default port numbers. However, if you accept the default port numbers you must stop the native UNIX services in order to avoid port conflicts.

Note: To provide Oracle Files NFS support to NFS clients running on AIX, HP-UX PA-RISC (64-bit), and Compaq Tru64 platforms, you must use port 2049 (the default) for Oracle Files and disable the native UNIX NFS protocol server. Linux x86 and Solaris Operating Environment (SPARC 32-bit) NFS clients do not have this limitation, so you can use both UNIX NFS and Oracle Files NFS protocol servers on the same computer for these clients.

14. Click **Next**.

The Website Information screen displays.

Figure 12–7 Website Information Screen

15. Enter the following information:

- **HTTP Host Name:** Enter the fully-qualified host name and port number of the computer through which you want the domain to provide HTTP listener services. This information should match the values you entered during Oracle Collaboration Suite middle-tier installation.
- **HTTP Port:** Enter a value for the HTTP port. If you are unsure of what port number to use, navigate to the Application Server Home page in the Application Server Control and click the **Ports** tab.

For example:

- 4443: Enter this value if you have configured SSL and are not using Oracle9iAS Web Cache.
- 4444: Enter this value if you have configured SSL and are using Oracle9iAS Web Cache.
- 7777: Enter this value if you have not configured SSL and are not using Oracle9iAS Web Cache.
- 7778: Enter this value if you have not configured SSL and are using Oracle9iAS Web Cache.
- **Uses SSL:** Select this only if you have configured SSL on that computer.

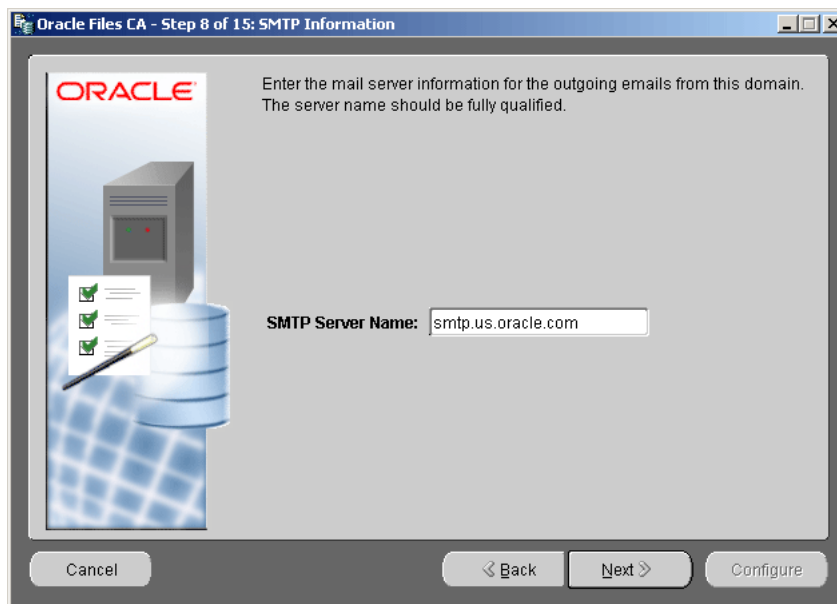
Note: If you have a load balancer in front of your middle-tiers, then the hostname and port number should match that of the load balancer.

See Also: *Oracle Files Administrator's Guide* and *Oracle9i Application Server Security Guide* for detailed information about using SSL.

16. Click **Next**.

The SMTP Information screen displays.

Figure 12–8 SMTP Information Screen



17. Enter the e-mail server information. This can be any valid SMTP server name. Enter the full host name of the SMTP server, in the form *hostname.domain*. Alternatively, you can enter the IP address of the SMTP server.

This information is used to send e-mail to the Subscriber Administrator regarding their respective passwords and to users regarding Oracle Files account provisioning.

Important: This information must be correct in order for the Subscriber Administrator to receive a password and for users to be notified when their accounts are provisioned. If the information is not correct, the Subscriber Administrator cannot log in to Oracle Files and users will not know when their accounts are provisioned.

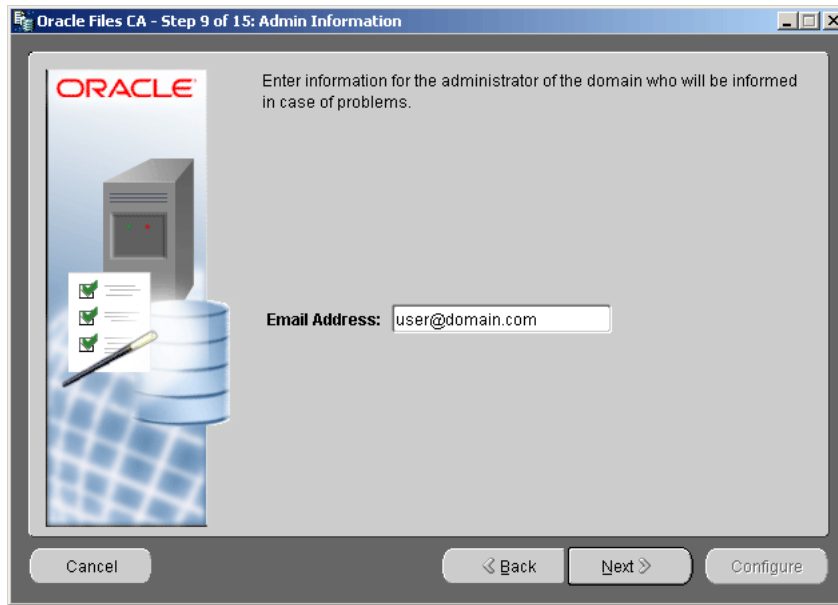
Note: If you need to change this information after configuring Oracle Files, you must:

- Edit the `IFS.SERVER.APPLICATION.UIX.SmtpHost` property of the `FilesBaseServerConfiguration` server configuration object through Oracle Enterprise Manager. You must restart the `OC4J_ifs_files` instance.
 - Reset the password on the Subscriber Name page (see ["Creating the Oracle Files Subscriber"](#) on page 12-26 for more information).
-

18. Click **Next**.

The Administrator Information screen displays.

Figure 12–9 Administrator Information Screen



19. Enter the fully-qualified e-mail address to use for sending notifications and other messages to the Oracle Files `site_admin` user.

20. Click Next.

The Users screen displays. The Oracle Files configuration assistant creates three new users: `system`, `guest`, and `site_admin`. The Site Administrator is used to create the [Subscriber](#) in Oracle Files.

Figure 12–10 Users Screen



21. Assign passwords to each of the default users.

The `site_admin` user is necessary for creating the Oracle Files subscriber post-configuration.

22. Click Next.

The Oracle Internet Directory Login screen displays.

Figure 12–11 Oracle Internet Directory Login Screen

Oracle Files CA - Step 11 of 15: OiD Login

ORACLE

Oracle Files uses directory services to store Oracle Files users passwords and perform user authentication. As a part of this configuration Oracle Files directory service and Oracle Internet Directory (OID) service will get created. Enter the login information for the OID server you want to configure as a Credential Manager for Oracle Files.

Server:

Port: Uses SSL

Super User:

Super User Password:

Root Oracle Context:

Cancel < Back Next > Configure

23. Enter the login information for the Oracle Internet Directory instance that you want to use for credential management. Enter the following information:

- **Server:** Enter the fully-qualified **host name** for the computer running Oracle Internet Directory.
- **Port:** Enter the port number where the Oracle Internet Directory server is listening.
 - Typically, the port number is 389. If port 389 is unavailable during the installation, port 4032 is used.
 - If you have SSL-enabled Oracle Internet Directory, select **Uses SSL** and change the port number. Typically, the port number for SSL-enabled Oracle Internet Directory is 636 or 4031.

See Also: *Oracle Files Administrator's Guide* and *Oracle Internet Directory Administrator's Guide* for detailed information about setting up Oracle Internet Directory for use with SSL

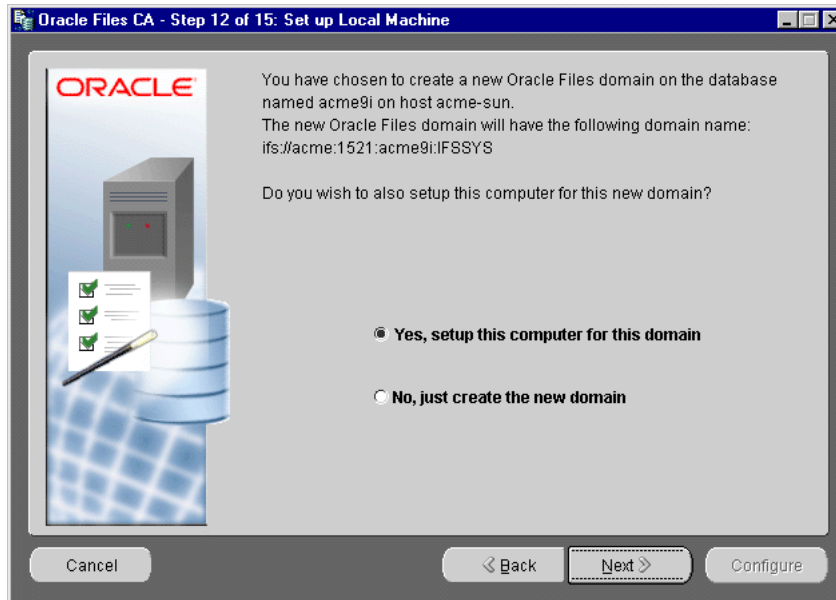
- **Super User:** Enter the Oracle Internet Directory super user name.
The default Oracle Internet Directory super user name is `cn=orcladmin`.
- **Super User Password:** Enter the Oracle Internet Directory super user password.
The password was created during the installation of Oracle Internet Directory.
- **Root Oracle Context:** Enter the root **Oracle Context**.
The default Oracle Internet Directory root Oracle Context is set to `cn=OracleContext`. Typically, you can leave this unchanged. If the Oracle Internet Directory administrator changed the root context, you must enter the

correct value. The concept of a root context is specific to LDAP directory services.

24. Click Next.

The Set Up Local Machine screen displays.

Figure 12–12 Set Up Local Machine

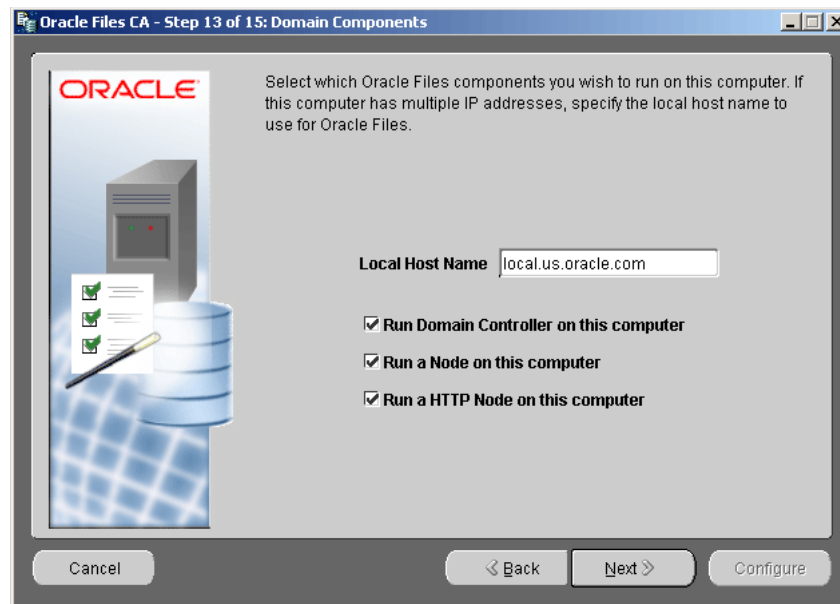


25. Select one of the following options:

- Select **Yes** to create the Oracle Files schema and configure this host to run a domain controller, node, or HTTP node.
- Select **No** to create the new schema without configuring this host.

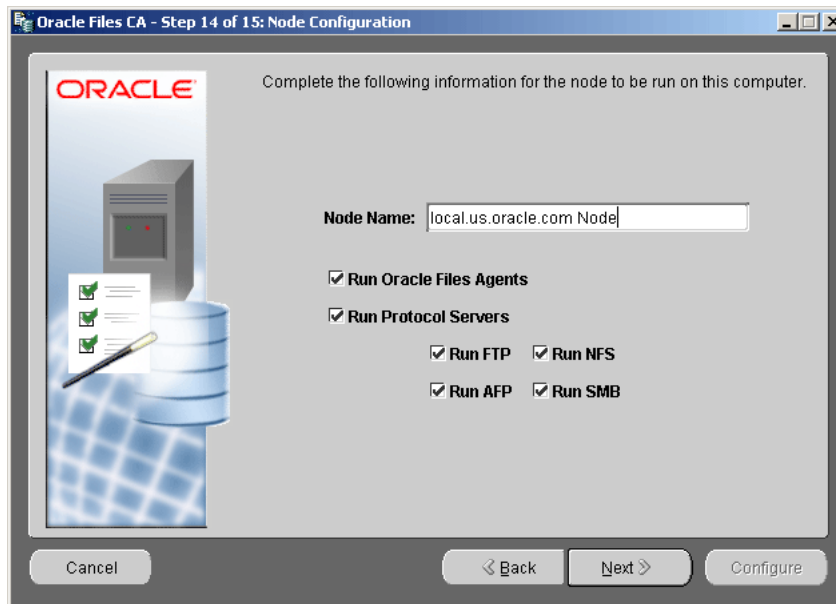
26. Click Next.

The Domain Components screen displays.

Figure 12-13 Domain Components Screen

27. Enter the fully qualified host name that you want to use for Oracle Files. If the computer contains multiple network interface cards (NICs), enter the IP address of the host computer.
28. Select **Run Domain Controller on this computer** and all other processes that you want to configure for the domain. By default, the following processes are selected on this screen:
 - **Run Domain Controller on this computer** configures the Oracle Files Domain Controller process. Only one computer should run this process.
 - **Run a Node on this computer** configures an Oracle Files node to run on this computer. Protocol servers and agents run on this node.
 - **Run an HTTP Node on this computer** configures an HTTP node to run the Oracle Files DAV server for HTTP and WebDAV access on this computer.
29. Click **Next**.

The Node Configuration screen displays.

Figure 12-14 Node Configuration Screen

This screen lists all the protocol servers and agents that you can choose to run in the domain:

- **Node Name** is the name by which you want the node to be known. For example, it can include the name of the computer (host name). The name must be unique across all of the nodes on this domain.
- **Run Oracle Files Agents** configures all the Oracle Files system agents to run on this computer. Note that agents run on only one node in the domain. If agents are already configured to run on another node, this box must be unchecked.
- **Run Protocol Servers** configures the Oracle Files protocol servers to run on this computer. Protocol Servers include FTP, AFP, NFS, and SMB.

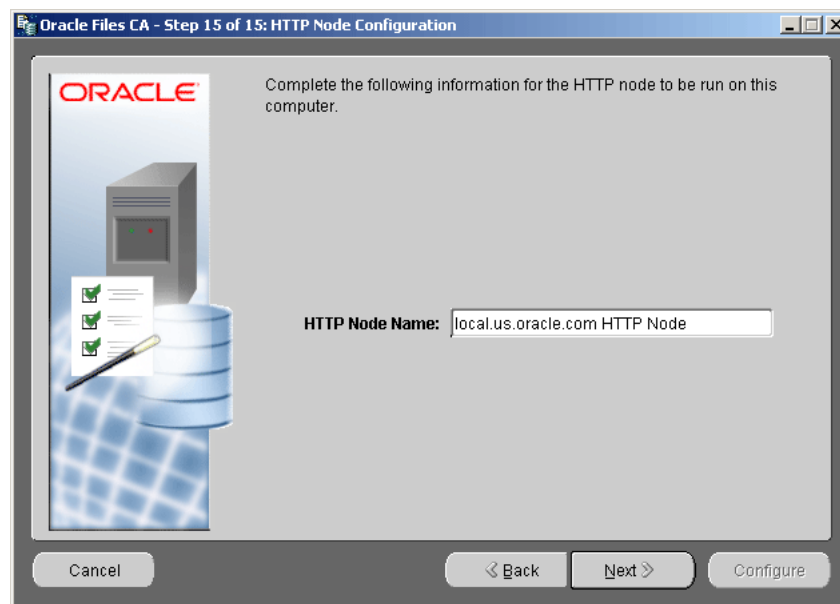
See Also: Chapter 1, "Oracle Files Concepts" in *Oracle Files Administrator's Guide*

30. Enter a node name and configure protocol servers and agents as needed.
31. Click **Next**.

The HTTP Node Configuration screen displays, if you selected **Run an HTTP Node on this computer** on the Domain Components screen. This screen enables you to provide a name for the HTTP Node. Continue to step 32.

Otherwise, the Summary screen displays. Continue to step 34.

Figure 12-15 HTTP Node Configuration Screen



32. Enter the name for the HTTP Node.

- **HTTP Node Name** is the name by which you want the HTTP node to be known. It can include the name of the computer (host name), but this is not a requirement. The name must be unique across all of the nodes on this domain.

33. Click **Next**.

The Summary screen displays. The Oracle Files configuration assistant now has all the information needed to create a new Oracle Files schema and configure the node and other processes. Note the name and location of the log file and any other important information on this screen.

34. Click **Configure** to execute the configuration process.

A progress window displays. If an error occurs, check the following log file for more information:

```
$ORACLE_HOME/ifs/files/log/FilesConfig.log
```

When the process is complete, a message informs you that the configuration was successful. Click **OK** to close the message. Oracle Files and the Oracle Enterprise Manager Web Site are integrated automatically.

If the Oracle Files configuration assistant was started by Oracle Universal Installer, then any remaining configuration tools are run.

Setting Up a Computer to Use an Existing Domain

These instructions guide you through the process of setting up a computer to use an existing domain. Perform these steps if you want to add additional Oracle Collaboration Suite middle tiers for your existing Oracle Files domain.

The instructions begin from the Oracle Files configuration assistant Welcome screen.

1. Click **Next** to begin the configuration process.

The Domain Operation screen displays

2. Select the **Set up this computer to use an existing Oracle Files domain** option and click **Next**.

The Database Selection screen displays.

3. Enter the name of the host on which the database is running (database host name), the listener port number, the database service name, and the password for the database `SYS` user account.

Note: The database service name must be registered on the listener computer. To determine which services are registered, use the command `lsnrctl status` on the database server.

4. Click **Next**.

The Database Login Verifications message box displays as the `CLASSPATH`, database connection to the Oracle database, initialization parameters, Oracle JServer installation, and other important requirements are verified.

If an error occurs, you must correct the problem before configuration can continue. For example, if JServer is not installed in the database, you see an error message related to the `DBMS_JAVA` package.

If additional errors occur, more information on why verification failed can be found in the `FilesConfig.log` file at the following location:

```
$ORACLE_HOME/ifs/files/log/FilesConfig.log
```

The Schema Name screen displays when the verification process completes.

5. Select the schema name of the existing Oracle Files domain from the list and enter the schema password.

6. Click **Next**.

The Domain Components screen displays after the database connection and schema are verified.

7. Enter the host name that you want to use for Oracle Files. If the computer contains multiple network interface cards (NICs), enter the IP address of the host computer.
8. Select the processes that you want to configure to run on this computer. By default, the following processes are selected:

- **Run Domain Controller on this computer** configures the Oracle Files Domain Controller process. Only one computer should run this process. To reuse an existing schema, uncheck this box. If a Domain Controller is already running on a different node, leave this box checked only if you want to move the Domain Controller to this middle tier.
- **Run a Node on this computer** configures an Oracle Files node to run on this computer. Select this option if you want to run protocol servers or agents on this middle tier.
- **Run an HTTP Node on this computer** configures an HTTP node to run the Oracle Files DAV server for HTTP and WebDAV access on this computer.

9. Click **Next**.

The Node Configuration screen displays.

The Node Configuration screen lists all the protocol servers and agents that you can choose to run in the domain:

- **Node Name** is the name by which you want the node to be known. It can include the name of the computer (host name), but it need not. Use any string that makes sense to you.
- **Run Oracle Files Agents** configures all the Oracle Files system agents to run on this computer. Note that agents run on only one node in the domain. If agents are already configured to run on another node, this box must be unchecked. If this box is checked, it inactivates agents running on other nodes and enables them on this node. If you are upgrading an existing Oracle Files schema, this box must be unchecked.
- **Run Protocol Servers** configures the Oracle Files protocol servers to run on this computer. Protocol Servers include FTP, AFP, NFS, and SMB.

See Also: "Oracle Files Concepts" in Chapter 1 of *Oracle Files Administrator's Guide*

10. Enter a node name and configure protocol servers and agents as needed.

11. Click **Next**.

The HTTP Node Configuration screen displays if you selected **Run an HTTP Node on this computer** on the Domain Components screen. This screen enables you to provide a name for the HTTP Node. Continue to step 12.

Otherwise, the Summary screen displays. Continue to step 14.

12. Enter the name for the HTTP Node.

HTTP Node Name is the name by which you want the HTTP node to be known. It can include the name of the computer (host name), but it need not. Use any string that makes sense to you.

13. Click **Next**.

The Summary screen displays. The Oracle Files configuration assistant now has all the information needed to configure the computer. Note the name and location of the log file and any other important information on this screen.

14. Click **Configure** to execute the configuration process.

A progress window displays. If an error occurs, check the following log file for more information:

```
$ORACLE_HOME/ifs/files/log/FilesConfig.log
```

15. When the process completes, a message informs you that the initial configuration was successful. Click **OK** to close the message.

If the Oracle Files configuration assistant was started by the Oracle Universal Installer, then the remaining configuration tools are started.

Note: After configuring Oracle Files to reuse a previously created schema, if you do not select **Run Domain Controller on this computer**, you must edit the following Oracle Files Base Server Configuration properties so that they point to the appropriate computer that is running the Domain Controller process:

```
IFS.SERVER.APPLICATION.UIX.ApplicationHost  
IFS.SERVER.APPLICATION.UIX.ApplicationPort
```

Alternatively, you can override these properties in the server-specific configurations.

Non-Interactive Configuration of Oracle Files

You can configure the Oracle Files domain non-interactively by passing a response file containing all the configuration settings to the Oracle Files configuration assistant as a parameter at the command line. The location of the response file is:

```
$ORACLE_HOME/ifs/files/settings/silentconfig.properties
```

The file contains instructions about how to modify and use it. Modify the response file to meet your specific needs.

1. Open the `silentconfig.properties` file in a text editor.
2. Make any required changes to the settings in the file, and close the file when you are finished.

The file itself contains instructions about how to modify and use it. Modify the response file to meet your specific needs. For example, you can specify a name for the schema, or disable the Run Domain Controller option, if you are installing and configuring an additional middle-tier machine to work with an existing instance.

3. Run the Oracle Files configuration assistant using your modified response file by entering the following two commands:

```
cd $ORACLE_HOME/ifs/files/bin
```

```
./ifscsa -file $ORACLE_HOME/ifs/files/settings/silentconfig.properties -silent
```

Oracle Files is configured on the computer according to the specifications defined in the response file. If an error occurs, check the following log file for more information:

```
$ORACLE_HOME/ifs/files/log/FilesConfig.log
```

Note: The response file contains sensitive information, such as passwords. After you have used the response file to configure Oracle Files, you should delete password information from file.

Setting Up Oracle Files Runtime

You must perform the following tasks to set up Oracle Files for runtime, and to ensure that your system is operational and secure:

- [Starting All Necessary Processes](#)
- [Creating the Oracle Files Subscriber](#)

- [Creating Users in Oracle Internet Directory](#)
- [Accessing the Protocol Servers](#)
- [Validating Basic Operations](#)

Starting All Necessary Processes

These instructions assume that Oracle Files has been installed and configured, and that the database and listener are running.

Oracle Files uses the Oracle*9i*AS Containers for J2EE (OC4J) component of the Oracle Collaboration Suite Infrastructure to support the DAV Servlet, which is deployed to OC4J automatically during the configuration process.

1. Verify that Oracle Enterprise Manager Web Site is running by using the following command:

```
$ORACLE_HOME/bin/emctl status
```

2. From a Web browser on the server computer or from another computer on the network, access the URL to connect to the Oracle Enterprise Manager Web Site on the computer where the Oracle Files domain controller is configured:

```
http://hostname:port
```

The *hostname* should be a fully qualified domain name. The *port* is typically 1810.

A User name and Password Required or Enter Network Password prompt displays.

3. Enter `ias_admin` as the user name with the appropriate password for the Oracle Collaboration Suite middle-tier.

The Web page displays a list of all Oracle Collaboration Suite Infrastructure components, or Targets, running on the specified host, as well as any Oracle Collaboration Suite-associated middle tiers.

4. Click the name of the Oracle Collaboration Suite instance that is hosting the Oracle Files software. If you are prompted for the Oracle Collaboration Suite instance user name and password again, enter `ias_admin` and the appropriate password to continue.

The Application Server page displays all of the system components running on the instance. The list should include the Oracle Files domain, which appears as a concatenation of `iFS_` and the database instance's host name, port number, service name, and the name of the schema for Oracle Files. For example:

```
iFS_myMachineHostname.mycompany.com:1521:myDBServiceName:myFILESSchemaName
```

Note: The **Start** and **Stop** buttons on this page are not active, and do not allow you to control Oracle Files.

5. Click the Oracle Files domain name link. On the subsequent page, click **Start Local Components**. A page prompting you for the host credential to start the Oracle Files node displays.
6. Enter the operating system account name and password for the computer. This is typically the `root` user name and password.

7. Click **OK**.

If your Oracle Files domain comprises multiple nodes across multiple computers, repeat steps 1 through 7 of this section for each computer. You must enter the operating system account name and password on each computer running a node that you want to start.

Note: In place of steps 1 through 7, you can run the `ifsctl start` command from the `$ORACLE_HOME/ifs/files/bin` location. However, following steps 1 through 7 enables you to use a browser to manage Oracle Files from any location.

8. Click the link that takes you back to the Application Server page.

Select `OC4J_iFS_files` and click **Start** or **Restart**.

9. Start the OC4J instance.

To start the OC4J instance from the command line, navigate to the `$ORACLE_HOME/opmn/bin` directory and use the following command:

```
opmnctl startproc gid=OC4J_iFS_files
```

The Oracle Files domain starts. You must start the OC4J instance on every middle tier computer that is running the HTTP Node.

10. Check the status of the Oracle Files domain. To do this, run the `ifsctl status -n` command from the following location:

```
$ORACLE_HOME/ifs/files/bin/
```

11. Check the log files to make sure the node and the HTTP node appear. The log files are located in the following directories:

```
$ORACLE_HOME/ifs/files/log/
$ORACLE_HOME/j2ee/OC4J_iFS_files/application-deployments/files
/OC4J_iFS_files_default_island_1/
```

Creating the Oracle Files Subscriber

Note: Ensure that the SMTP server is running before creating a subscriber. The SMTP server must be running in order for the Subscriber administrator and users to receive e-mail regarding their respective passwords.

In the following steps, you must log in to Oracle Files as the Site Administrator and create the **Subscriber**. You must create the Oracle Files subscriber in order for Oracle Internet Directory users to be able to log in to Oracle Files.

1. Go to:

```
http://http_host:port/files/app/AdminLogin
```

The `http_host` should be a fully qualified domain name. For example:

```
http://acme.us.oracle.com:7778/files/app/AdminLogin
```

The Administrator Login page displays.

2. Log in as `site_admin` and use the same `site_admin` password you used during configuration.
3. Click **New Subscriber**.

The Subscriber Name page displays. Note that the Subscriber Name is the default subscriber for the Oracle Internet Directory server. The Oracle Internet Directory server is the value entered in step 23 in the "Creating a New Oracle Files Domain" section on page 12-17 during Oracle Files configuration.

4. Accept the default values.

Important: Multiple subscribers are not currently supported due to Oracle9iAS Single Sign-On limitations.

5. Click **Next**.

The Subscriber Information page displays.

6. Set the quota and maximum number of users. For example, 1 GB total quota, 10 MB quota for each user, and 10 MB quota for each Workspace.

7. Click **Next**.

The Create Subscriber Administrator Account page displays.

8. Enter the Subscriber Administrator user login ID. The e-mail address is where the subscriber's password is sent. Specify the Default User Account Settings and Default Workspace Settings.

9. Click **Next**.

The New Subscriber Confirmation page displays.

10. Review your information, then click **Submit**.

The Browse Subscribers page displays. You can see that the Subscriber has been created and the Subscriber's password has been automatically e-mailed.

11. To log in as the Subscriber Administrator, navigate to the following URL:

`http://http_host:port/files/app/AdminLogin`

The Administrator Login page displays.

12. Log in as `subscriberadmin_user_login_ID/password` using the subscriber user login ID that you entered when creating the subscriber in step 8 of this section, and the subscriber password that you received by e-mail.
13. Click the Users tab to view the Users page. Search for the wildcard value `*` to see an updated list of all Oracle Files users.

Creating Users in Oracle Internet Directory

In order for users to access Oracle Files, they must first be created as users in Oracle Internet Directory, Oracle's LDAP server.

To create users in Oracle Internet Directory:

1. Make sure that the OC4J_DAS instance has been started on the Infrastructure host.
2. Connect to your infrastructure host, typically:

`http://oidserver.us.oracle.com:7777/oiddas`

The *hostname* should be a fully qualified domain name.

3. Log in as the Oracle Internet Directory Administrator (typically `orcladmin`).
4. Click the **Directory** tab.
5. Click **Create**.

The Create User page displays.

6. Fill in the fields. You must specify an e-mail address.
7. Select **Oracle Collaboration Suite Users** to add this user to the group.
8. Click **Submit**.

Caution: If you use spaces at the end of user names, or any of the following characters, the user is not provisioned from Oracle Internet Directory into Oracle Files: `& ' % ? \ / + = () * ^ , ; | ~`

Once users are created in Oracle Internet Directory, and the Oracle Files Site Administrator has created the Oracle Files Subscriber Administrator, they are automatically provisioned in Oracle Files every 15 minutes (the default setting) by the `FilesOidUserSynchronizationAgent`.

Additionally, once a user has been created in Oracle Internet Directory, logging on to Oracle Files as that user immediately provisions the user in Oracle Files, irrespective of the time interval specified for the Agent (this feature is new in this release).

You can reset the default interval for auto-provisioning by the `FilesOidUserSynchronizationAgent` from 15 minutes to any interval of your choosing.

See Also: *Oracle Files Administrator's Guide* for information about how to change this default interval

Note: Although Oracle Files supports multibyte character sets, some protocols, such as WebDAV, do not support multibyte user names. For this reason, when you create users for Oracle Files in Oracle Internet Directory, you should create the names using single-byte characters only. Users whose names are created with multibyte characters are unable to access content through Oracle Files protocol servers. Similarly, you should create user passwords in ASCII since the protocols only accept ASCII passwords.

Users whose passwords are created with non-ASCII characters are unable to access content through the Oracle Files protocol servers.

Accessing the Protocol Servers

To access the protocol servers running on your Oracle Files Domain, each end user must perform the following steps:

1. Connect to the Protocol Access page:

`http://ocs_midtier_hostmachine:port/files/app/ProtocolAccess`

The value supplied for *ocs_midtier_hostmachine* should be a fully qualified domain name. The value supplied for *port* should be the port number of the middle tier computer.

The Single Sign-On page displays.

2. Log in using the Oracle Internet Directory user and password.

The Protocol Access page displays.

3. Enter the Oracle9iAS Single Sign-On password and the Oracle Files-specific password and password confirmation to create these passwords for the user.
4. Click **Continue** to save.

Now that you have configured the Oracle Internet Directory user using the Protocol Access page, you can access the protocol servers that are running on your Oracle Files Domain.

Note: To access FTP and AFP, use the Oracle Files-specific password. To access SMB, Oracle FileSync, Web Folders, or the Oracle Files Web interface, use the Oracle Internet Directory password.

See Also: *Oracle Files Administrator's Guide* for more information about creating users and accessing protocol servers running on your Oracle Files Domain

Validating Basic Operations

To validate that the domain and node started and the core Oracle Files components are working, perform the following steps:

1. Check the status of the Oracle Files domain. Run the `ifsctl status -n` command from the following location:

```
$ORACLE_HOME/ifs/files/bin/
```

2. Check the HTTP log at the following location:

```
$ORACLE_HOME/j2ee/OC4J_iFS_files/application-deployments/files  
/OC4J_iFS_files_default_island_1/application.log
```

3. If the HTTP log contains a "503 Service Temporarily Unavailable" message, attempt to connect to the system from another computer on the network.

Table 12–6 *Expected Basic Functionality*

Protocol or Server	Access Address or Method	Expected Result
HTTP	<code>http://ocs_middle_tier_host_name:port_number/files/app</code>	Log in as a user created in the Oracle Internet Directory server.
SMB	Map a network drive from Windows Explorer. <code>\\middle_tier_host_name\myhome</code>	A Windows file share appears.

If you attempt to connect to the HTTP Web server and receive a 503 Service Temporarily Unavailable message, the HTTP node has not fully started. You must start the HTTP node (the OC4J instance).

In addition, when the Oracle Files domain is stopped and restarted, you must also restart the HTTP node (the OC4J instance) in order to reinitialize the HTTP Node servlet.

To start the OC4J instance from the command line, navigate to the \$ORACLE_HOME/opmn/bin directory and use the following command:

```
opmnctl restartproc gid=OC4J_ifs_files
```

Additional Post-Configuration Tasks

Depending on your planned deployment, some or all of the following tasks are required after configuring Oracle Files.

- [Configuring Net Service Names](#)
- [Integrating Oracle Workflow with Oracle Files \(Optional\)](#)
- [Post-Configuration Steps for Using Oracle Files with a Real Application Clusters Database \(Optional\)](#)
- [Adding the Return to Portal Link in the Oracle Files Web UI \(Required\)](#)
- [Editing the Oracle Internet Directory Return Query Limit \(Optional\)](#)
- [Registering the Oracle Files and Search Portlets \(Required\)](#)

Configuring Net Service Names

This task is recommended for ease of administration. You must perform this task if you are integrating Oracle Workflow with Oracle Files. Configure net service names using Oracle Net configuration assistant as follows:

1. Run the Oracle Net configuration assistant by executing the following script:

```
$ORACLE_HOME/bin/netca
```

The Welcome screen displays.

2. Select **Net Service Name configuration**, and click **Next**.

The Net Service Name Configuration screen displays.

3. Click **Add**, and then click **Next**.

The Net Service Name Configuration, Database Version screen displays.

4. Select **Oracle8i or later database or service**.

5. Click **Next**.

The Service Name screen displays. Enter a **Service Name** for the database instance, such as db1.us.acme.com.

6. Click **Next**.

The Select Protocols screen displays.

7. Select **TCP (default)**.

8. Click **Next**.

The TCP/IP Protocol screen displays. Enter values for the **DB Hostname** and **DB Port**. The default value for the database port is 1521.

9. Click **Next**.

The Test screen displays.

10. Click **Yes** to perform a test.

The Connecting screen displays with the result of the test connection. The test attempts to connect using the default user `scott`. Because the user `scott` is locked during database creation, the test connection might fail. If the test connection fails, the Oracle Net configuration assistant returns to the Service Name screen. Change the user to `system`, enter the values for your database and perform the test connection again.

11. If the Connection screen returns the result **OK**, click **Next**.

The Net Service Name screen displays. Enter a service name for this database connection in the **TNS Alias Name** field, such as `db1`.

12. Click **Next**.

The Net Service Name screen displays. Accept the default value of **No**.

13. Click **Next**.

The NetCA Done screen displays.

14. Click **Next**.

The Summary screen displays.

15. Click **Finish**.

Integrating Oracle Workflow with Oracle Files (Optional)

To integrate Oracle Workflow with Oracle Files, perform the following tasks:

1. [Configuring Oracle Workflow](#)
2. [Integrating Oracle Workflow with the Oracle Files Schema](#)
3. [Enabling Additional Languages in the Oracle Workflow Schema \(Optional\)](#)

Configuring Oracle Workflow

The steps detailed in this section must be performed to properly configure Oracle Workflow for use with Oracle Files.

Configuring Oracle Workflow primarily involves setting up the Oracle Workflow schema, and only needs to be done for the first middle tier, not for any additional middle tiers that are added.

Note: The Oracle Workflow scripts automatically set the Oracle Workflow administrator as the `orcladmin` user.

1. Run Oracle Workflow configuration assistant in the first middle tier computer by executing the following script:

```
$ORACLE_HOME/ifs/files/bin/ifswoffinstall
```

The Oracle Workflow configuration assistant displays.

- Enter the user information listed in [Table 12-7](#):

Table 12-7 Oracle Workflow Configuration Assistant Values

Field	Value
Workflow Account	The user name of your Oracle Workflow database account. The default Workflow account is <code>OWF_MGR</code> . If you are creating more than one Oracle Workflow instance on the same information storage database, enter a descriptive name for this account.
Workflow Password	The password for your Oracle Workflow database account.
SYS Password	Enter the <code>SYS</code> password for the database in which you are creating the Oracle Workflow account. See your Oracle DBA if you need more information.
SYSTEM Password	Enter your <code>SYSTEM</code> password for the database in which you are creating the Oracle Workflow account. See your Oracle DBA if you need more information.
Install Option	Select Install to perform a fresh installation of Oracle Workflow.
Language Selection	If you selected the Add language install option, select the language abbreviation for the language you want to add. Otherwise, accept the default. See Also: Table 12-9, "Language Codes" for a list of standard language abbreviations
Connect Method	Select Local to connect to a local database using the Oracle SID, or Remote to connect to a remote database through Oracle Net. Select Remote if you performed the steps listed in "Configuring Net Service Names" on page 12-30.
Connect String	If you select the Remote connect method, enter the service name that you specified in step 11 of "Configuring Net Service Names" on page 12-30 for the remote database. Important: To ensure that the Oracle Workflow schema is created on the same database where the Oracle Files schema is to be created, use the Oracle Collaboration Suite information store <code>CONNECT_STRING</code> .

- Click **Submit** to begin Oracle Workflow configuration.

When Oracle Workflow configuration is complete, a confirmation window displays.

- Click **OK**.

Oracle Workflow configuration is now complete. You can check the status of the Oracle Workflow configuration by reviewing the `workflow.log` log file located in the following directory:

```
$ORACLE_HOME/wf/install/
```

Important: The `workflow.log` file produced during installation and configuration of Oracle Workflow can contain sensitive information. To protect this sensitive information, delete this file after the installation is complete or change the permissions for the file so that only authorized administrators can access it.

Integrating Oracle Workflow with the Oracle Files Schema

Before integrating Oracle Workflow with the Oracle Files schema, you must apply ARU patch 5778073.

Download the patch from <http://metalink.oracle.com>.

To integrate Oracle Workflow with the Oracle Files schema, perform the following steps. These steps assume you have already configured Oracle Workflow per the instructions on page 12-31:

Notes: If you are using an external 9.2.0.3 database instead of the information storage database included with Oracle Collaboration Suite Release 2 (9.0.4.1), or if you are updating an existing information storage database, you must run the `catldap.sql` configuration script as the database `SYS` user on the database host system from `/rdbms/admin`. Then, run the `ifswfsetup` script to integrate Oracle Files with Oracle Workflow.

1. If you are integrating Oracle Files with Oracle Workflow in a locale other than English, you must change the `LANG` environment variable to the English locale before running the `ifswfsetup` script. Type the following at a command prompt:

Note: Before changing the value of `LANG`, enter the command `set LANG` at a command prompt and record the current value of the environment variable.

```
set LANG = american_america.we8iso8859p1
```

2. Once you have successfully configured Oracle Workflow, edit the `ifswfsetup.properties` file using the values provided in [Table 12-8](#). This table describes the parameters that are used by the `ifswfsetup` script. Edit these parameters based on your requirements. **These edits are mandatory if you want to integrate Oracle Workflow with Oracle Files.** The `ifswfsetup.properties` file is located at:

```
$ORACLE_HOME/ifs/files/settings
```

Important: Back up the `ifswfsetup.properties` file before modifying it. Do not edit any parameters other than the ones listed in [Table 12-8](#).

If you have applied Oracle Collaboration Suite patch set Release 9.0.4.2.0, the patch installation process backs up the file automatically.

Table 12-8 Values for `ifswfsetup.properties` File

Field # and Name	Structure	Example ¹
(1) Oracle home	<code>ORACLE_HOME=ORACLE_HOME</code>	<code>ORACLE_HOME=u01/app/oracle/ocsmid</code>
(2) Database Host	<code>DB_HOST_NAME=dbhost.us.oracle.com</code>	<code>DB_HOST_NAME=acme.us.oracle.com</code>
(3) Database Port	<code>DB_LISTENER_PORT=port_number</code>	<code>DB_LISTENER_PORT=1521</code>

Table 12–8 (Cont.) Values for ifswfsetup.properties File

Field # and Name	Structure	Example ¹
(4) Database Service Name	DB_SERVICE_NAME= <i>db_service_name</i>	DB_SERVICE_NAME=acme9i
(5) Database TNS Alias Name	DB_TNS_ALIAS= <i>db_tns_aliasname</i>	DB_TNS_ALIAS=my_files_instance This is the database service that you are using for Oracle Files, created with the Oracle Net configuration assistant. See "Configuring Net Service Names" on page 12-30 for more information.
(6) Database SID	DB_SID= <i>db_sid</i>	DB_SID=my_files_sid
(7) Oracle Files Schema Name	IFS_SCHEMA_NAME= <i>ifssys</i>	IFS_SCHEMA_NAME=ifssys
(8) Oracle Workflow Schema Name	IFS_WORKFLOW_SCHEMA_NAME= <i>workflow_schema_name</i>	IFS_WORKFLOW_SCHEMA_NAME=owf_mgr
(9) Oracle Workflow URL	WF_URL=http:// <i>midtier:port_number</i>	WF_URL=http://mycomp.us.oracle.com:7777
(10) Oracle LDAP Host	OID_HOST_NAME= <i>ldaphost.us.oracle.com</i>	OID_HOST_NAME=oidserver.us.oracle.com
(11) Oracle LDAP Port	OID_PORT= <i>port_number</i>	OID_PORT=4032
(12) Oracle LDAP Admin User Name	OID_SUPER_USER_NAME=cn=orcladmin	Enter the exact value specified in the Structure column.
(13) Oracle LDAP Changelog	LDAP_CHANGELOG=cn=changelog	Enter the exact value specified in the Structure column.
(14) Oracle LDAP Baselog	LDAP_BASELOG=cn=Users,dc=us,dc=oracle,dc=com	Values should match those specified for LDAP searchbase during Oracle Internet Directory configuration.
(15) Language Upload Script	LANGONLY=false	Set the value to <code>false</code> when integrating Oracle Files and Oracle Workflow. Set the value to <code>true</code> when enabling additional languages in the Oracle Workflow schema.
(16) Language Files to Upload See Table 12–9, "Language Codes" for a complete list of language codes. Multiple codes can be entered, separated by a comma.	LANG= <i>language_code</i>	LANG= When LANGONLY=false (see Field 15), this value should be left empty. LANG=es When LANGONLY=true (see Field 15), enter a language code.
(17) OID Sync Interval	INTERVAL= <i>interval_duration</i>	INTERVAL=10 Specifies, in minutes, how often an Oracle Internet Directory user is provisioned in Oracle Files.

¹ Values for fields 2-7 and should be identical with information entered during Oracle Files configuration.
Values for fields 8-9 should be identical with information entered during Oracle Workflow configuration.
Values for fields 10-14 should be identical with LDAP information entered during Oracle Files configuration.

3. Save and exit from the `ifswfsetup.properties` file.
4. Execute the `ifswfsetup` script by entering the following two commands:

```
cd $ORACLE_HOME/ifs/files/bin
./ifswfsetup
```

This executes the script and creates the `ifswfsetup.log` log file in the following directory:

```
$ORACLE_HOME/ifs/files/log/
```

Important: The `ifswfsetup.properties` file and the `ifswfsetup.log` file contain sensitive information. To protect this sensitive information, delete these files after the installation is complete or change the permissions for the files so that only authorized administrators can access them.

Note: If you changed the value of `LANG`, you must use the `set LANG` command at a command prompt to set the value of the environment variable to its previous value.

5. Enable additional languages in the Oracle Workflow schema, if necessary.

Enabling Additional Languages in the Oracle Workflow Schema (Optional)

To enable additional languages in the Oracle Workflow schema, perform the following steps:

Note: Czech, Greek, Hungarian, Romanian, and Russian language support is only available if you have applied Oracle Collaboration Suite patch set Release 9.0.4.2.0.

1. Edit the `ifswfsetup.properties` file (located at `$ORACLE_HOME/ifs/files/settings`), as follows:
 - **Field 15: Language Upload Script**
`LANGONLY=true`
 - **Field 16: Language Files to Upload**
`LANG=[Enter language codes from column 2 of Table 12-9 that match the languages that you want to upload to Oracle Workflow. Separate multiple language codes with a comma.]`

If you want to enable all languages, use the following syntax:

```
LANG=all
```

2. When you have completed edits to the `ifswfsetup.properties` file, execute the `ifswfsetup` script by entering the following two commands:

```
cd $ORACLE_HOME/ifs/files/bin
./ifswfsetup
```

This executes the script and creates the `ifswfenablelang.log` log file in the following directory:

```
$ORACLE_HOME/ifs/files/log/
```

Important: The `ifswfenablelang.log` file contains sensitive information. To protect this sensitive information, delete this file after the installation is complete or change the permissions for the file so that only authorized administrators can access it.

Table 12–9 Language Codes

Language	Code ¹
Czech	cs
Danish	da
German	de
Greek	el
Spanish	es
Finnish	fi
French	fr
Hungarian	hu
Italian	it
Japanese	ja
Korean	ko
Dutch	nl
Norwegian	no
Portuguese	pt
Brazilian Portuguese	pt_BR
Romanian	ro
Russian	ru
Swedish	sv
Turkish	tr
Simplified Chinese	zh_CN
Traditional Chinese	zh_TW

¹ These codes can also be found in the `ifswfsetup.properties` file.

Note: Czech, Greek, Hungarian, Romanian, and Russian language support is only available if you have applied Oracle Collaboration Suite patch set Release 9.0.4.2.0.

Post-Configuration Steps for Using Oracle Files with a Real Application Clusters Database (Optional)

The following tasks are required after configuring Oracle Files if you are using Oracle Files with a Real Application Clusters database.

In addition to the required preconfiguration tasks for setting up Oracle Files to use a Real Application Clusters database (see ["Set Up Oracle Files to Use Real Applications"](#))

[Clusters Database \(Optional\)](#)" on page 12-6), you must perform the following post-configuration steps:

1. On each middle tier, back up the `registry.xml` file (located in the `$ORACLE_HOME/ifs/common/` directory).
2. Edit the `registry.xml` file and add a `DatabaseUrl` entry.

You can add the `DatabaseUrl` entry anywhere under the `<Instance>` tag. In the following example, the entry is added directly under the tag. Note that the value for `tnsentry` should be the same as that specified in the Real Application Clusters pre-configuration steps.

For example:

```
<Instance>
  <DatabaseUrl>jdbc:oracle:oci8:@tnsentry</DatabaseUrl>
  <Domain>ifs://DBHOME:1521:dbservice:ifssys</Domain>
  <DomainType>files</DomainType>
  <Registered>1018925008096</Registered>
  <LastStarted>1028329087966</LastStarte>d
  <LastModified>1028330926700</LastModified>
  <Ports>
</Instance>
```

Adding the Return to Portal Link in the Oracle Files Web UI (Required)

If you have configured Oracle9iAS Portal, you can add a Return to Portal link that displays in the Oracle Files Web UI, so that you can navigate from Oracle Files to the Oracle Collaboration Suite Home page.

To add the Return to Portal link to the Oracle Files Web UI, perform the following steps:

1. Access the Oracle Enterprise Manager Web site by entering the following URL in a Web browser:

```
http://hostname:1810/
```

2. Log in as `ias_admin`, using the password you specified during installation, and click **OK**.
3. From the Oracle9iAS Home page, navigate to the Oracle Files top-level page by clicking on the Oracle Files domain link. For example:

```
ifs_dbhost.us.oracle.com:1521:ifsdbservice.us.oracle.com:FilesSchema
```

4. In the Configuration section, click **Server Configurations**
5. From the Server Configuration page, click **FilesBaseServerConfiguration**. The Edit page displays.

6. In the Properties section, select `IFS.SERVER.APPLICATION.FILES.PortalUrl` and click **Edit**.

7. Change the value to specify the Oracle Collaboration Suite Home page URL. For example:

```
http://hostname.us.foo.com:7777/pls/portal
```

8. Click **OK** on the Edit Properties page.
9. Click **OK** on the Edit Server page.

10. Return to the Oracle*9i*AS Home page.
11. Select OC4J_iFS_files and click **Restart**.

The Return to Portal link now displays in the Oracle Files Web UI. It also displays in the Federated Search pages.

Editing the Oracle Internet Directory Return Query Limit (Optional)

If your Oracle Internet Directory server has more than 1000 Oracle Internet Directory user accounts, the following error message can occur in your node log when the Oracle Files `OidUserSynchronizationAgent` attempts to synchronize users from the Oracle Internet Directory server:

```
8/13/02 7:39 PM Files: [oidsync-2107123 OidUserSynchronizationAgent] Exception
oracle.ifs.common.IfsException: IFS-12988: Count limit exceededUIDs
```

To avoid this error, complete the following steps before starting the Oracle Files `OidUserSynchronizationAgent`:

1. Run Oracle Directory Manager.
2. Log in to the infrastructure Oracle Internet Directory server using the Oracle Internet Directory administrator's user name and password.
3. Select the Oracle Internet Directory server into which you just logged in from the tree. The server is represented in the tree with the account name, Oracle Internet Directory host, and Oracle Internet Directory port. Oracle Directory Manager displays the properties of the Oracle Internet Directory server in the right part of the window.
4. Locate and change the value in the **Query Entry Return Limit** field so that it is greater than the number of Oracle Collaboration Suite users.
5. Click **OK** to save.

Registering the Oracle Files and Search Portlets (Required)

After configuring Oracle Files and starting the domain, you must run the Web client installer in order to configure the Oracle Files and Search portlets. After registering the portlets, they become available from the Oracle Collaboration Suite Web client page.

See Also: [Chapter 6, "Installing Oracle Collaboration Suite"](#) for information about running the Web client installer

Configuring Search Features

This chapter guides you through the process of configuring search for Oracle Collaboration Suite.

This chapter contains the following topics:

- [Default Oracle Ultra Search Instance](#)
- [Creating an Oracle Ultra Search Database User](#)
- [Default Oracle Ultra Search Instance](#)
- [Configuring the Oracle Ultra Search Crawler](#)
- [Creating a Web Source](#)
- [Creating a Schedule](#)
- [Scheduling the Oracle Ultra Search Crawler](#)
- [Setting Oracle Ultra Search Properties](#)
- [Making E-mail Searchable](#)
- [Restarting OC4J_iFS_files](#)
- [Testing Oracle Ultra Search](#)

Default Oracle Ultra Search Instance

The Oracle Ultra Search installer creates a default out of the box Oracle Ultra Search instance based on the default Ultra Search test user, so users can test Oracle Ultra Search functionality based on the default instance after installation.

The default instance name is `WK_INST`. It is created based on the database user `WK_TEST`. In other words, `WK_TEST` is the instance administrator for `WK_INST`. The default user password is `WK_TEST`.

For security purposes, `WK_TEST` is locked after the installation. The Oracle Collaboration Suite administrator should login to the database as DBA role, unlock the `WK_TEST` user account, and set the password to be `WK_TEST`. (The password expires after the installation.) If the password is changed to anything other than `WK_TEST`, then you must also update the cached schema password using the administration tool Edit Instance page after you change the password in the database.

The default instance is also used by the Oracle Ultra Search sample query application. You must update the `data-sources.xml` file, as described in the "Configuring the Middle Tier Component" section of the *Oracle Ultra Search User's Guide*.

Creating an Oracle Ultra Search Database User

Oracle Corporation recommends that Oracle Ultra Search use its own tablespace to store its own data, as follows:

```
SQL> create tablespace ultra datafile 'file_location' size x_MB
```

Log in to the infrastructure host and create an Oracle Ultra Search schema with the following commands:

```
$ sqlplus system/password@iasdb
SQL> CREATE USER ocs_us IDENTIFIED BY password DEFAULT TABLESPACE ultra
TEMPORARY TABLESPACE temp QUOTA UNLIMITED ON ultra;
User created.
SQL> GRANT resource, connect, wkuser TO ocs_us;
Grant succeeded.
SQL> exit
```

The WKUSER role gives the user access to Oracle Ultra Search.

Configuring the Oracle Ultra Search Crawler

This section explains how to configure the Oracle Ultra Search crawler.

Note: Follow these steps when a new instance is created. In step 10, the paths for **Temporary Directory Location** and **Crawler Logging** must be applied to the default instance WK_TEST.

To configure the Oracle Ultra Search crawler:

1. Create directories on the infrastructure machine where Oracle Ultra Search is installed to hold the temporary and log files.
2. Go to the Oracle Ultra Search administration tool at the following URL:
`http://mddletier_host:mddletier_port/ultrasearch/admin_sso/index.jsp`
3. When the Single Sign-On page displays, enter the Oracle Internet Directory administrator's username and password and click **Login** to display the Welcome page.
4. Click the **Create** subtab to display the Create Instance page.
5. Click **Create instance**.
6. Enter a **New Instance Name** and enter the name of the database schema created in "[Creating an Oracle Ultra Search Database User](#)" on page 13-2 in the **Ultra Search Schema Name** field.
7. Click **Apply** and wait for the page to refresh. A confirmation message displays to confirm the creating of the new instance and the Welcome page displays.
8. Select the instance you just created from the **Select Instance to Manage** drop-down list and click **Apply** to select this instance as your current instance. You receive a confirmation message.
9. Click the **Crawler** tab.
10. Enter the following information:

- **Crawling Depth:** The maximum number of nested links the crawler will follow. You can limit the depth by selecting the **Limit** radio button and entering a number in associated field.
- **Default Character Set:** Choose Standard UTF8 as the default for HTML documents
- **Temporary Directory Location:** Enter the path to the temporary directory you created in Step 1 of this task
- **Crawler Logging:** Enter the path to the log directory you created in Step 1 of this task
- Note the value in the **Database Connect String** field. This value is required when you configure Oracle Files for Oracle Ultra Search in "[Setting Oracle Ultra Search Properties](#)" on page 13-4.

11. Click **Apply**.

Creating a Web Source

To create a Web source:

1. Click the **Sources** tab to display the Create Web Source: Step 1 page.
2. Click **Create Web Source**.
3. Choose a small Web site to index as a test site for Oracle Ultra Search and enter it in the **Source Name** field.
4. Click **Proceed to Step 2** to display the Create Web Source: Step 2 page.
5. Click **Proceed to Step 3** to accept the defaults and display the Create Web Source: Step 3 page.
6. In the **Starting Address** section, enter a URL for a starting address for indexing.
7. Click **Add** to add the new address to the Starting Address List.
8. Click **Proceed to Step 4** to display the Create Web Source: Step 4 page.
9. Click **Proceed to Step 5** to accept the defaults and display the Create Web Source: Step 5 page.
10. Click **Proceed to Step 6** to accept the defaults and display the Create Web Source: Step 6 page.
11. Click **Finish** to accept the defaults.

The new Web source appears in the **Web Source List**.

Creating a Schedule

To create a schedule:

1. Click the **Schedules** tab to display the Synchronization Schedules page.
2. Click **Create New Schedule** to display the Create Schedule: Step 1 of 3 page.
3. Enter a schedule name in the **Name** field.
4. Click **Proceed to Step 2** to display the Create Schedule: Step 2 of 3 page.
5. Click **Proceed to Step 3** to accept the default schedule. This schedules the crawl to execute once a month.

6. Choose a data source for the schedule to crawl, by doing the following:
 - a. Select **Web** from the **Get Available Sources for Type** drop-down list and click **Get Sources**.
 - b. The source that you created in "[Creating a Web Source](#)" on page 13-3 appears in the **Available Sources** list.
 - c. Select the source and click **>>** to move the source to the **Assigned Sources** list.
 - d. Click **Finish** to return to the Synchronization Schedules page.

The new schedule displays in the **Schedules** column.

Scheduling the Oracle Ultra Search Crawler

To schedule the Oracle Ultra Search Crawler:

1. Click **Scheduled** in the **Status** column to display the Synchronization Schedule Status page.
2. Click **Execute Immediately** to start the crawler.
3. In the **Crawler Progress Summary and Log Files by Data Source** section, click the pencil icon in the **Statistics** column to display the status and summary for the crawl.

Click the **Refresh Status** link if you do not see the pencil icon.

4. To determine if the crawl was successful, verify that **Documents Indexed** in the **Name** column has a value other than zero.

Setting Oracle Ultra Search Properties

After you index documents, you must set the Oracle Ultra Search properties in Oracle Collaboration Suite.

To set the Oracle Ultra Search properties:

1. Start Oracle Enterprise Manager and navigate to the Oracle Files domain page.
2. Click **Federated Search Configuration** to display the Federated Search Configuration page.
3. Select the **Yes** radio button for **Ultra Search Configured**.
4. Select the **Yes** radio button for **Mail Configured**.
5. Set the Webmail Base URL to
`http://middletier_host:middletier_port/um/traffic_cop`
6. Enter the name of the database schema that you created in "[Configuring the Oracle Ultra Search Crawler](#)" on page 13-2 in the **Ultra Search Schema Name** field.
7. Enter and confirm the password that you chose for the database schema in "[Configuring the Oracle Ultra Search Crawler](#)" on page 13-2 in the **Ultra Search Schema Password** and **Confirm Password** fields.
8. Enter the value that was displayed in step 10 "[Configuring the Oracle Ultra Search Crawler](#)" on page 13-2 in the **Ultra Search Connect String** field, prepended with `jdbc:oracle:thin:@`. For example,
`jdbc:oracle:thin:@infrastructure_host:1521:iasdb.`

9. Click **Apply** to receive a confirmation message that the Federated Search configuration has been successfully updated.
10. After modifying the Federated Search Configuration, you must restart the OC4J_iFS_files instance. You can either restart it from Oracle Enterprise Manager, or execute the following command from the command line:

```
opmnctl restartproc gid=OC4J_iFS_files
```

Making E-mail Searchable

In order to enable Oracle Ultra Search to search e-mail, you must index e-mail and configure the `HouseKeeping` process to regularly synchronize the e-mail text index.

This section contains the following topics:

- [Indexing E-mail](#)
- [Configuring the HouseKeeping Process](#)

Indexing E-mail

To index e-mail for users as they are created, do so at the domain level, as follows:

1. Log in to the Webmail client as a user with administrator privileges.
2. Click the **Administration** tab.
3. Click the **Domain** tab.
4. Ensure that **Domain Settings for Users** is selected.
5. Choose the appropriate **Installation** and **Domain** from their respective drop-down lists and click **Submit**.
6. Set **Mail User Index Type** to **Indexed for Text** and click **Submit**.

To index e-mail for users that have been created prior to making the above change at the domain level, you must do it on an individual basis, as follows:

Note: Only new e-mail is indexed. E-mail sent prior to enabling Text Synchronization is not indexed.

1. Log in to the Webmail client as an e-mail administrator with administrator privileges.
2. Click the **Administration** tab.
3. Click the **User** tab.
4. Click **Default New User**.
5. Enter the search criteria for the existing user(s) and specify the appropriate e-mail domain from the drop-down list and click **Go**.
6. Click the user ID.
7. Set **Mail User Index Type** to **Indexed for Text** and click **Modify**.

Configuring the HouseKeeping Process

To configure the `HouseKeeping` process:

1. Using Oracle Enterprise Manager, navigate to the HouseKeeping page.
2. Clicking **Create or Create Like** to create a new Oracle Email housekeeping instance.
3. Click the new housekeeping instance to bring up the parameters screen and set **Text Synchronization** to **Enabled**.
4. Disable the **Pruning** and **Collection** options.
5. In the **Process Sleep Duration** field, enter how often the housekeeper should queue messages for indexing, in minutes. For example, if you want the housekeeper to queue messages for indexing every three minutes, enter 3 in the field.

Note: Set the HouseKeeper to index messages as frequently as clients check for new mail, such as five minutes.

6. Set **Execution Mode** to **Daemon**.
7. Click **Apply**.
8. Return to the HouseKeeping page.
9. Click **Start**.

As an ongoing process, housekeeping periodically collects newly arrived messages to Oracle Text for indexing.

Restarting OC4J_ifs_files

The new Federated Search settings are not used until the OC4J_ifs_files system component is restarted.

To restart the OC4J_ifs_files system component:

1. On the Federated Search Configuration page in Oracle Enterprise Manager, click the first link in the navigation path under the subtab bar.
2. Select the radio button next to the **OC4J_ifs_files** system component.
3. Click **Restart**.
4. Click **Yes** to confirm that you want to restart.
5. Click **OK** to confirm the restart message.

Testing Oracle Ultra Search

To test Oracle Ultra Search:

1. Go to the following URL to display the Oracle Files Search window:
`http://middletier_host:middletier_port/files/app/FederatedSearch`
2. Log in as the test user to display the General Search page.
3. In the **Item Name** field, enter a name for which to search.
4. In the **Content** field, enter content for which to search.
5. In the **User Name** field, enter the name of the owner of the content to search.

6. Choose a comparison operator from the **Date** drop-down list and enter a date string in the associated field against which to search.
7. Choose **Files**, **Web**, or both in the **Look In** field to indicate which source or sources to search.
8. After entering the search criteria, click **Search**.

To search Oracle Files content or Oracle Email, configure them as sources in Oracle Ultra Search.

Configuring Oracle Web Conferencing

This chapter provides an overview of post-installation configuration tasks for Oracle Web Conferencing. For complete details about deploying and configuring Oracle Web Conferencing, see the *Oracle Web Conferencing Administrator's Guide*.

This chapter contains the following sections:

- [Overview of Oracle Web Conferencing Deployment](#)
- [Manually Starting and Stopping Web Conferencing Processes](#)
- [Oracle Real-Time Collaboration Core Components Configuration](#)

Overview of Oracle Web Conferencing Deployment

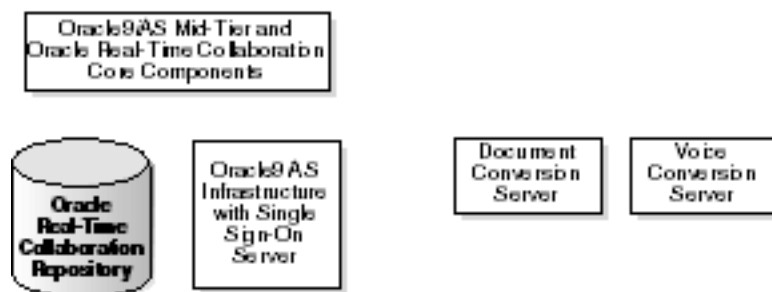
The Oracle Web Conferencing system includes the following components:

- Oracle Real-Time Collaboration Core components that provide the core functionality of Web Conferencing
- The Document Conversion Server for converting Microsoft Office documents that need to be shared during a conference
- The Voice Conversion Server for streaming voice data during a conference
- The set of Oracle Real-Time Collaboration database schemas residing in an Oracle9iAS database

In addition, the Oracle Web Conferencing system interacts with an Oracle9iAS Infrastructure system to manage user sign-on and to synchronize user information with the Oracle Internet Directory.

Figure 14-1, "Oracle Real-Time Collaboration Basic Components" shows the components needed for Web Conferencing.

Figure 14-1 Oracle Real-Time Collaboration Basic Components

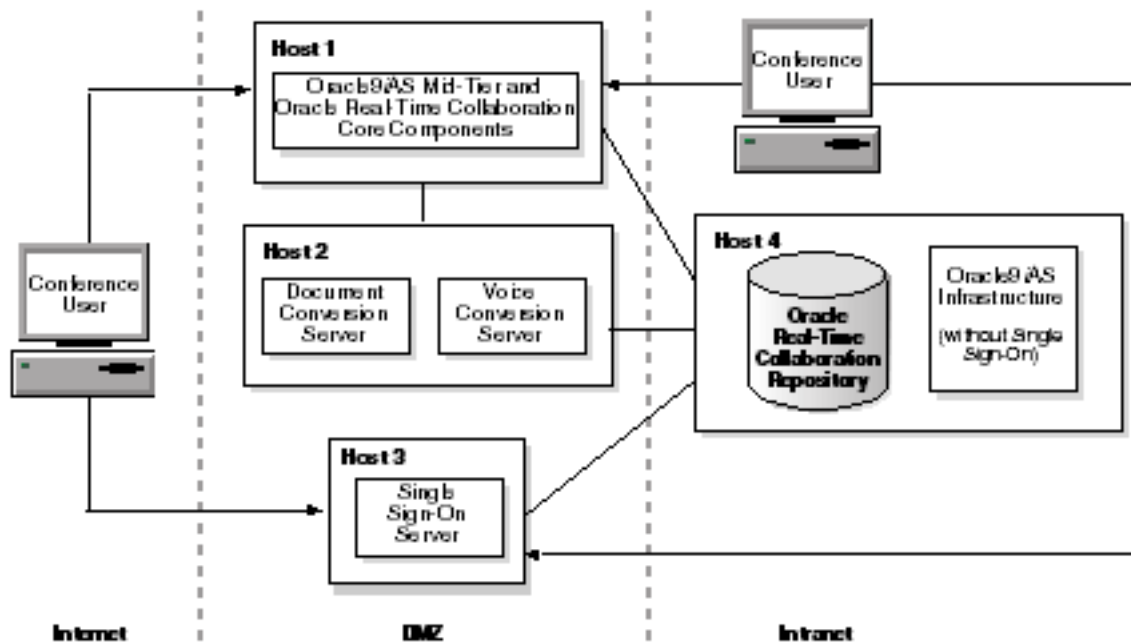


The Oracle Real-Time Collaboration Core components and Document and Voice Conversion servers are installed on Oracle9iAS mid-tier systems. Document and Voice Conversion servers must be installed on a computer running Microsoft Windows and Microsoft Office, while the core components and supporting database and infrastructure systems can be installed on Solaris, hp-ux, AIX, Linux, or Windows systems. The Voice Conversion server has additional hardware requirements discussed in [Chapter 2, "Preparing for Installation"](#). The supporting database and infrastructure systems are often installed on a separate database host, although they can also be installed together with the core components.

Some considerations need to be made, however, to support conference services on a corporate intranet that generally includes a secure intranet area behind a firewall, a DMZ ("demilitarized zone") between the firewall and the public Internet, and web conferencing users both within the intranet and outside the firewall in the Internet.

[Figure 14-2, "Oracle Real-Time Collaboration Example Deployment"](#) shows an example of a deployment where the components required by users for a conference, including the Single Sign-On Server used to verify users entering a conference, are located on mid-tier systems in the DMZ, to allow access to users outside the firewall. Users within the intranet or within the DMZ can also access all required conference components.

Figure 14-2 Oracle Real-Time Collaboration Example Deployment



The Single Sign-On Server and Oracle Real-Time Collaboration Core components can be located on the same mid-tier system, if desired. The Single Sign-On server can remain with the Oracle9iAS infrastructure if both are placed in the DMZ to serve Internet users. The repository and Oracle9iAS infrastructure can be on separate machines or combined, or can even be combined on a machine with the Oracle Real-Time Collaboration core components.

The following mandatory associations must be made for the various parts of Oracle Web Conferencing to work. All of these associations are created during installation:

- **Oracle Real-Time Collaboration Core Components to Oracle Real-Time Collaboration Repository:** This association is made during installation
- **Oracle Real-Time Collaboration Core Components to Oracle9iAS Infrastructure:** This association is made during installation
- **Document and Voice Conversion Servers to Oracle Real-Time Collaboration Repository:** This association is made during installation

Manually Starting and Stopping Web Conferencing Processes

The Real-Time Collaboration components and the additional Oracle components used by Oracle Web Conferencing are started during installation. If for some reason you need to start or stop these processes, this section describes how to do so. It covers the following topics:

- [Starting and Stopping Oracle9iAS Components for Web Conferencing](#)
- [Starting or Stopping an Oracle Real-Time Collaboration Instance](#)

This section discusses how to use the `dcmctl` and `imtctl` utilities. For more details about these commands, see the following books:

See Also: *Oracle9i Application Server Administrator's Guide* for details about `dcmctl`

See Also: *Oracle Web Conferencing Administrator's Guide* for details about `imtctl`

Starting and Stopping Oracle9iAS Components for Web Conferencing

The Oracle Web Conferencing system uses several Oracle9iAS components such as the Oracle Web Conferencing J2EE Application (OC4J_imeeting), Oracle HTTP Server, and Oracle Process Management and Notification. This section shows you how to start or stop these processes, if necessary.

1. To determine the status of the processes, use the `dcmctl getState` command on all servers where the Real-Time Collaboration Core Components are installed:

```
$ORACLE_HOME/dcm/bin/dcmctl getState -v
```

2. To start OC4J_imeeting, enter the following command:

```
$ORACLE_HOME/dcm/bin/dcmctl start -co OC4J_imeeting -t -v 120
```

3. To start the Oracle HTTP server, enter:

```
$ORACLE_HOME/dcm/bin/dcmctl start -ct ohs -v -t120
```

4. To start the Oracle Process Monitor and Notification system, enter:

```
$ORACLE_HOME/dcm/bin/dcmctl start -ct opmn
```

5. To stop any of the above processes, enter the same commands as above but substitute `stop` for `start`.

Starting or Stopping an Oracle Real-Time Collaboration Instance

At installation time, all the Real-Time Collaboration processes are automatically started by the installer. At any other time, all Web Conferencing components can be

started or stopped by using the `imtctl` utility on each instance where Web Conferencing components have been installed.

1. To check the status of Oracle Real-Time Collaboration components, use the `imtctl getState` command:

```
$ORACLE_HOME/imeeting/bin/imtctl getState
```

2. To start any Real-Time Collaboration instance, enter the following `start` command on each machine on which an instance has been installed:

```
$ORACLE_HOME/imeeting/bin/imtctl start
```

The Document or Voice Conversion Servers, used to support conversion of documents for document sharing and streaming voice during conferences, are installed on Windows machines. The command to start these servers is:

```
%ORACLE_HOME%\imeeting\bin\imtctl start
```

3. You can stop any Web Conferencing component by using the `stop` command:

```
$ORACLE_HOME/imeeting/bin/imtctl stop
```

Oracle Real-Time Collaboration Core Components Configuration

When you install the Oracle Web Conferencing system, including instances of the Oracle Web Conferencing Core components and the Document and Voice Conversion servers, you perform the following two types of configuration tasks:

- **System tasks:** These tasks must be done once for the entire Oracle Web Conferencing system. In most cases, there is no need to repeat these steps when a new instance is added to the system. However, you can use the global settings or override them for specific instances.
- **Instance tasks:** These must be done for every instance. The set of specific tasks that must be completed is determined by how you are deploying the system (for example, allowing Internet or enabling SSL security).

Table 14–1 lists the various tasks you must perform.

Table 14–1 Task Checklist

Task	Why Required	Nature of Task
Integrate with Oracle HTTP Server	Each Oracle Web Conferencing instance must be integrated with the Oracle HTTP Server associated with that instance. This allows access to intranet users behind remote firewalls.	Instance task
Set up for periodic monitoring	Each Oracle Web Conferencing instance can be monitored periodically and the results plugged into an alert management system.	Instance task
Integrate with existing proxy server	Oracle Web Conferencing must be integrated with the existing proxy settings for use by the Oracle Web Conferencing Console. This includes cobrowsing functionality, and cross-instance HTTP-based diagnostics.	System task
Integrate with existing e-mail	Oracle Web Conferencing must be integrated with the e-mail infrastructure in order to send e-mail invitations for conferences.	System task

Table 14–1 (Cont.) Task Checklist

Task	Why Required	Nature of Task
Configure Oracle Web Conferencing for reports	Oracle Web Conferencing provides automatic generation and transmission of reports by e-mail.	System task
Assign <code>businessadmin</code> role to an administrator	An administrative account must be assigned to let an administrator view the administration pages in the Oracle Web Conferencing Application.	System task

All of these tasks are discussed in detail the *Oracle Web Conferencing Administrator's Guide*.

Part IV

Appendixes

Part IV contains the following appendixes:

- [Appendix A, "Java Access Bridge Installation"](#)
- [Appendix B, "Installation Checklists"](#)
- [Appendix C, "Troubleshooting"](#)
- [Appendix D, "Default Port Numbers and Port Ranges"](#)
- [Appendix E, "Windows Services"](#)
- [Appendix F, "Installing Oracle Calendar Standalone"](#)
- [Appendix G, "Oracle Collaboration Suite Client Installations"](#)

Java Access Bridge Installation

This appendix describes the procedures required for installation of Java Access Bridge.

This appendix contains these topics:

- [Setting Up Java Access Bridge](#)
- [Setup for JRE 1.3.1](#)
- [Setup for JRE 1.1.8](#)

Setup for JRE 1.3.1

To set up Java Access Bridge with JRE 1.3.1, run the batch file on the first Oracle Collaboration Suite CD-ROM. The batch file is located at:

```
first_install_CD-ROM\install\win32\access_setup.bat
```

Setup for JRE 1.1.8

The following sections describe how to use Java Access Bridge with JRE 1.1.8:

- [Setup for Oracle Universal Installer](#)
- [Setup for Oracle Installed Components](#)

Setup for Oracle Universal Installer

Install and configure Java Access Bridge before installing Oracle components to enable assistive technologies to read Oracle Universal Installer screens.

To install Java Access Bridge:

1. Exit any assistive technology software that is running before you begin Java Access Bridge installation.
2. Insert the first Oracle Collaboration Suite component CD-ROM.
3. Copy `\AccessBridge\accessbridge1_0_2.zip` to a location on your hard drive.
4. Extract the files onto your computer hard drive. For example:
`c:\`
5. Add `access-bridge.jar` and `jaccess-1_1.jar` information to the CLASSPATH user environment variable.

- a. Open the Windows System Control Panel. For Windows NT or Windows 2000, choose **Start > Settings > Control Panel > System**.

- On Windows NT, click the **Environment** tab.
- On Windows 2000, click the **Advance** tab. Then, click **Environment Variables**.

- b. Add the following to the CLASSPATH user environment variable:

```
c:\AccessBridge-1_0_2fcs\installer\installerFiles\access-bridge.jar
c:\AccessBridge-1_0_2fcs\installer\installerFiles\jaccess-1_1.jar
```

where `c:\AccessBridge-1_0_2fcs` is the full path to the Java Access Bridge location on your computer hard drive.

6. Copy `JavaAccessBridge.dll` and `WindowsAccessBridge.dll` from:

```
c:\AccessBridge-1_0_2fcs\installer\installerFiles\
```

to

```
%SystemRoot%\system32\
```

Following successful installation, Java Access Bridge documentation is located at:

```
\AccessBridge-1_0_2fcs\doc
```

Setup for Oracle Installed Components

Install and configure Java Access Bridge for Windows after installing Oracle components to enable assistive technologies to read Oracle component screens.

To install Java Access Bridge:

1. Insert the first Oracle Collaboration Suite component CD-ROM.
2. Copy `\AccessBridge\accessbridge1_0_2.zip` to a location on your hard drive.
3. Extract the files onto your computer hard drive. For example:

```
c:\
```

4. Install Java Access Bridge into the subdirectory of JRE 1.1.8 used by Oracle components. By default, the JRE 1.1.8 used by Oracle is installed in:

```
SYSTEM_DRIVE:\Program Files\Oracle\jre\1.1.8
```

[Table A-1](#) lists the files to copy from the Java Access Bridge location on your computer hard drive to the appropriate subdirectory of the JRE used by Oracle components.

Table A-1 Copy Files To Subdirectory

Copy...	To...
<code>\AccessBridge-1_0_2fcs\installer\installerFiles\jaccess-1_1.jar</code>	<code>\lib\</code>
<code>\AccessBridge-1_0_2fcs\access-bridge.jar</code>	<code>\lib\</code>
<code>\AccessBridge-1_0_2fcs\JavaAccessBridge.dll</code>	<code>\bin\</code>
<code>\AccessBridge-1_0_2fcs\WindowsAccessBridge.dll</code>	<code>\bin\</code>

1. Rename `jaccess-1_1.jar` to `jaccess.jar` in the destination folder.

2. Use a text editor to open the `\lib\awt.properties` file located in the subdirectory of JRE 1.1.8 used by Oracle components.
3. Add the following lines to the `awt.properties` file:

```
AWT.EventQueueClass=com.cun.java.accessibility.util.EventQueueMonitor
AWT.assistive_technologies=com.sun.java.accessibility.AccessBridge
```

Following successful installation, Java Access Bridge documentation is located at:

```
\AccessBridge-1_0_2fcs\doc
```

To configure Oracle components to use Java Access Bridge:

Set the system environment variable `ORACLE_OEM_CLASSPATH` to point to the installed Java Access Bridge files.

1. Open System Properties. For Windows NT or Windows 2000, choose **Start > Settings > Control Panel > System**.

On Windows NT:

- a. Click the **Environment** tab.
- b. Select a variable in the **System Variables** list.
- c. Enter `ORACLE_OEM_CLASSPATH` in the **Variable** field.
- d. Enter the full path of `jaccess.jar` and `access-bridge.jar` in the **Value** field. For example, if JRE 1.1.8 is installed in the default location, then the paths are:

```
SYSTEM_DRIVE:\Program Files\Oracle\jre\1.1.8\lib\jaccess.jar;
SYSTEM_DRIVE:\Program Files\Oracle\jre\1.1.8\lib\access-bridge.jar
```

- e. Click **Set**.
- f. Click **OK**.

On Windows 2000:

- a. Click the **Advanced** tab.
- b. Click **Environment Variables**.

The Environment Variables dialog appears.

- c. Click the **New** button under the **System Variable** list.

The New System Variable dialog appears.

- d. Enter the `ORACLE_OEM_CLASSPATH` in the **Variable Name** field.
- e. Enter the full path of `jaccess.jar` and `access-bridge.jar` in the **Variable Value** field. For example, if JRE 1.1.8 is installed in the default location, then the paths are:

```
SYSTEM_DRIVE:\Program Files\Oracle\jre\1.1.8\lib\jaccess.jar;
SYSTEM_DRIVE:\Program Files\Oracle\jre\1.1.8\lib\access-bridge.jar
```

- f. Click **OK** until you exit System Properties.

Setting Up Java Access Bridge

This section contains setup information for enabling Oracle components to use a screen reader.

Java Access Bridge enables assistive technologies, such as the JAWS screen reader, to read Java applications running on the Windows platform. Assistive technologies can read Java-based interfaces, such as Oracle Universal Installer and Oracle Enterprise Manager.

Your Oracle Collaboration Suite installation CD-ROMs contain two different versions of Java Runtime Environment (JRE) that are used by Oracle Universal Installer during installation. The CD-ROMs contain JRE 1.3.1 and JRE 1.1.8. The JREs enable use of Java Access Bridge during installation.

Complete the following procedures to install and configure Java Access Bridge for each of the JREs.

Note: Java Access Bridge is available on the first CD-ROM of the following installation CDs:

- Oracle*9i*AS Infrastructure
 - Oracle Collaboration Suite information storage
 - Oracle Collaboration Suite
-
-

Installation Checklists

This appendix provides checklists for the three installations of Oracle Collaboration Suite and the Oracle Files Configuration Assistant. These checklists identify the types of information you are prompted to enter for each installation and configuration.

This appendix contains these topics:

- [Oracle9iAS Infrastructure Installation Checklist](#)
- [Oracle Collaboration Suite information storage Installation Checklist](#)
- [Oracle Collaboration Suite Installation Checklist](#)
- [Oracle Files Configuration Checklist](#)

Oracle9iAS Infrastructure Installation Checklist

Table B-1 lists required information for Oracle9iAS Infrastructure installation. Enter your values for the listed installation information in the Your Information column before beginning.

Table B-1 Oracle9iAS Infrastructure Installation Information

Information	Example Values	Your Information
Oracle Base Directory ¹	/private/oraInventory	
Oracle Home Location	/private/orainf	
OSDBA Group ¹ (See "UNIX Group Names for Privileged Groups" on page 2-9)	svrtech	
OSOPER Group ¹ (See "UNIX Group Names for Privileged Groups" on page 2-9)	svrtech	
Instance Name	instance1	
ias_admin Password	oracle1	
Oracle9iAS Single Sign-On Server Host Name ²	ocs.us.oracle.com	

Table B-1 (Cont.) Oracle9iAS Infrastructure Installation Information (Cont.)

Information	Example Values	Your Information
Oracle9iAS Single Sign-On Port Number ² (See Appendix D, "Default Port Numbers and Port Ranges")	7777	
Oracle Internet Directory Host Name	ocs.us.oracle.com	
Oracle Internet Directory Port Number (See Appendix D, "Default Port Numbers and Port Ranges")	4032	
Oracle Internet Directory Username	cn=orcladmin	
Oracle Internet Directory Password	oracleadmin	
Database Character Set	UTF8	

¹ Required for first time installation of Oracle software on a computer.

² Required for Oracle Collaboration Suite installations.

Oracle Collaboration Suite information storage Installation Checklist

[Table B-2](#) lists required information for Oracle Collaboration Suite information storage installation. Enter your values for the listed installation information in the Your Information column before beginning.

Table B-2 information storage Installation Information

Information	Example Values	Your Information
Oracle Base Directory ¹	/private/oraInventory	
Oracle Home Location	/private/orastore	
OSDBA Group ¹ (See "UNIX Group Names for Privileged Groups" on page 2-9)	svrtech	
OSOPER Group ¹ (See "UNIX Group Names for Privileged Groups" on page 2-9)	svrtech	
Global database name and SID name	instance1	
Database Character Set	UTF8	UTF8 ²

¹ Required for first time installation of Oracle software on a computer.

² For this release of Oracle Collaboration Suite, the default character set for the Oracle Email and Oracle Files information store is UTF8.

Oracle Collaboration Suite Installation Checklist

Table B-3 lists required information for Oracle Collaboration Suite installation. Enter your values for the listed installation information in the Your Information column before beginning.

Table B-3 Oracle Collaboration Suite *Installation Information*

Information	Example Values	Your Information
Oracle Base Directory ¹	/private/oraInventory	
Oracle Home Location	/private/oraocs	
OSDBA Group ¹ (See "UNIX Group Names for Privileged Groups" on page 2-9)	svrtech	
OSOPER Group ¹ (See "UNIX Group Names for Privileged Groups" on page 2-9)	svrtech	
Multilingual Support (See "Starting Oracle Universal Installer" on page 5-4)	runInstaller	
Instance Name		
ias_admin Password	oracle1	
Oracle9iAS Single Sign-On Server Host Name ²	ocs.us.oracle.com	
Oracle9iAS Single Sign-On Port Number ² (See Appendix D, "Default Port Numbers and Port Ranges")	7777	
Oracle Internet Directory Host Name	ocs.us.oracle.com	
Oracle Internet Directory Port Number (See Appendix D, "Default Port Numbers and Port Ranges")	4032	
Oracle Internet Directory Username	cn=orcladmin	
Oracle Internet Directory Password	oracleadmin	

¹ Required for first time installation of Oracle software on a computer.

² Required for Oracle Collaboration Suite installations.

Oracle Files Configuration Checklist

Table B-4 lists required information for Oracle Files configuration. Enter your values for the listed configuration information in the Your Information column before beginning.

Table B-4 Oracle Files Configuration Information

Information	Example Values	Your Information
Schema Name	IFSSYS	
Schema Password		
Oracle Files system User Password		
Oracle Files site_admin User Password		
Database Host Name	deploy.mycompany.com	
Database Listener Port	1521	
Database Service Name	storage.deploy.mycompany.com	
Database SYS User Password		
HTTP Host Name	files.mycompany.com	
SMTP Server Name	smtp.mycompany.com	
Site Administrator E-mail Address	admin@mycompany.com	
Oracle Internet Directory Root Oracle Context	cn=OracleContext	
Local Host Name	local.mycompany.com	
Node Name	local.mycompany.com Node	
HTTP Node Name	local.mycompany.com HTTP Node	
Oracle Files Protocol Servers		<input type="checkbox"/> FTP <input type="checkbox"/> NFS <input type="checkbox"/> AFP <input type="checkbox"/> SMB

Troubleshooting

This appendix describes common installation problems and solutions.

This appendix contains these topics:

- [Troubleshooting Oracle Collaboration Suite Web Client Configuration](#)
- [Troubleshooting Oracle Files Installation](#)
- [Troubleshooting Real Application Clusters](#)

Troubleshooting Oracle Collaboration Suite Web Client Configuration

If a user logs into Oracle Collaboration Suite and sees a generic Oracle*9i*AS Portal page instead of the Oracle Collaboration Suite Home page, do the following:

1. Ensure that the user is a member of the Oracle Collaboration Suite Users group, as follows:
 - a. Log into Oracle Delegated Administration Services as `orcladmin` at the following URL:

```
http://host_name:port_number/oiddas/
```

Note: In a typical installation, Oracle Delegated Administration Services is located where the infrastructure is installed.

 - b. Click the **Directory** tab.
 - c. Search for the user by user ID (`orclguest`, for example).
 - d. Select the user from the search results, and click **Edit**.
 - e. Scroll down to the **Public Groups Assignment** section, and ensure that the user is a member of the Oracle Collaboration Suite Users group.

If the user is not a member, select the **Oracle Collaboration Suite Users** box, and click **Apply**.
 - f. Log out of Oracle Delegated Administration Services.
2. Ensure that the Oracle Collaboration Suite Users group is the user's default group, as follows:
 - a. Log into Oracle*9i*AS Portal as the user in question. For example, go to `http://host_name:port_number/`, click **End User Login**, and log in as `orclguest`.

- b. If the Oracle Collaboration Suite Home page displays, the user is now correctly provisioned and the rest of this procedure is unnecessary.
 - c. If the Oracle*9i*AS Portal Welcome page displays, click **Account Info**.
 - d. On the Account Info page, ensure that the user's default group is set to OCS_PORTAL_USERS.
If it is not, manually enter OCS_PORTAL_USERS for the user's default group, and click **Apply**.
 - e. Ensure the user's **Default Home Page** is blank.
 - f. Click the **Home** global button. You should see the Oracle Collaboration Suite Home page. If not, proceed to step 3.
3. If the Oracle Collaboration Suite Home page still does not display, do the following:
 - a. Log into Oracle*9i*AS Portal as the user in question. For example, go to `http://host_name:port_number/`, click **End User Login**, and log in as `orclguest`.
 - b. When the Oracle*9i*AS Portal Welcome page displays, click **Account Info**.
 - c. On the Account Info page, ensure that the user's default group is set to OCS_PORTAL_USERS.
If it is not, manually enter OCS_PORTAL_USERS for the user's default group, and click **Apply**.
 - d. Click the **Browse Pages** icon next to the **Default Home Page** field.
 - e. Locate the **OCS_V2_PAGE_GROUP** page group, and click to expand it.
 - f. Locate the Oracle Collaboration Suite Home page, and click **Return Object**.
 - g. Click **Apply**.
 - h. Click the **Home** global button and the correct home page should display.

Troubleshooting Oracle Files Installation

Most configuration errors involve failure to carefully follow preinstallation instructions. The following section describes some common installation problems, their possible causes, and how to correct the problem. Installation and configuration actions are captured in the following log files:

- `$ORACLE_HOME/oraInventory/logs/installActions.log` file records any errors encountered during installation.
- `$ORACLE_HOME/ifs/files/log/FilesConfig.log` file records errors encountered during Oracle Files configuration.
- `$ORACLE_HOME/ifs/files/log/DBHost_port_ServiceName_SchemaName/midtierhostName_Node.log` is the Files Node log file. Review this file to diagnose protocol servers and agents that are currently running. It is also useful for diagnosing issues with starting and stopping the protocol servers and agents.

For example:

```
/data/mtier/ifs/files/log/ifsqa1_us_oracle_com_1521_ifsqa1service_
myschema/test2-pc_Node.log
```


- `ORACLE_HOME/j2ee/OC4J_iFS_files/application-deployments/files/OC4J_iFS_files_default_island_1/application.log` is the Files HTTP Node log file. Review this log to diagnose the Oracle Files application and OC4J_iFS_files. This log is also useful for diagnosing issues when using Oracle Files with the Web browser or DAV clients (Web Folders, and Oracle FileSync).

For example:

```
/data/mtier/j2ee/OC4J_iFS_files/application-deployments/files/OC4J_iFS_files_default_island_1/application.log
```

- `$ORACLE_HOME/wf/install/workflow.log` file records errors encountered during Oracle Workflow configuration.
- `$ORACLE_HOME/ifs/files/log/ifswfsetup.log` file records errors encountered while integrating Oracle Workflow with the Oracle Files schema.
- `$ORACLE_HOME/ifs/files/log/ifswenablelang.log` file records errors encountered while enabling additional languages in the Oracle Workflow schema.

This section describes the following problems:

- [Error Creating Database Objects](#)
- [Database-Related Installation Error Messages](#)
- [Oracle Files Servers Fail Due to Insufficient Database Resources](#)
- [Determining if Oracle Text is Operating Properly](#)
- ["Out of database cursors" Message Written to \\$ORACLE_HOME/ifs/files/log/domain_name/node_name.log](#)
- [Server is Slow](#)
- [Cannot Connect to Protocol Servers](#)
- ["503 Service Unavailable" Message](#)
- [Oracle Files Configuration Assistant Cannot Establish a Connection to a RAC Database With the Thin Driver](#)
- [Oracle Files Configuration Assistant "session_max_open_files must be set to 50" Error Message](#)
- [Broken Images on UNIX](#)

Error Creating Database Objects

The database is not running or is not available, or the listener is not running. Start the database and listener prior to configuration.

Database-Related Installation Error Messages

The database is not running or Oracle Text is not correctly configured. Start the database prior to installation and check the `tnsnames.ora` and `listener.ora` files.

Oracle Files Servers Fail Due to Insufficient Database Resources

The values in `initsid.ora` are too low. Check the `$ORACLE_HOME/ifs/files/log` directory for the log file of the failed server. Edit the `initsid.ora` file (or change the `SPFILE`), but provide larger values.

Determining if Oracle Text is Operating Properly

The Oracle Files configuration assistant performs a series of operations to determine if Oracle Text is operating correctly. These steps involve the following:

- Creating and logging in as an IFSCXTXTEST0 user
- Creating an Oracle Text preference
- Creating a table with a blob column
- Creating an Oracle Text index based on this blob column
- Loading a Word document into the table
- Synching the Oracle Text index

If any of these steps fail, the Oracle Files configuration assistant notifies you that Oracle Text is not operating properly. The cause of the problem can be related to a number of issues. To find out in which step the test fails, use the following procedure.

Note: Oracle Files configuration against Windows 64-bit Oracle9i Database Server 9.2 database fails because the database is missing the `ctxhx` executable that is required to enable Oracle Text on the schema.

There are two possible solutions to this problem:

- If you receive an error message during Oracle Files configuration that states "Oracle Text Verification Failed," click **OK** to create a schema without Oracle Text enabled.
 - Build your own `ctxhx` executable. For more information, read the *Building a Filter Server for Oracle Text* document on OTN at <http://otn.oracle.com/products/text/htdocs/FilterServer.htm>
-

Perform the following to do a manual step-by-step check of Oracle Text:

1. Log in as a DBA user and create a test user called `ifsctxtest0`, as follows:

```
SQL> CREATE USER IFSCXTXTEST0 IDENTIFIED BY IFSCXTXTEST0 DEFAULT TABLESPACE
USERS TEMPORARY TABLESPACE TEMP;
```

```
SQL> GRANT CONNECT,RESOURCE,CTXAPP TO IFSCXTXTEST0;
```

2. Create the directory to load the `ifsctxtest.doc` file from:

```
SQL> create or replace directory DIR_TESTCASE as '$ORACLE_
HOME/9ifs/admin/binaries';
```

3. Allow the IFSCXTXTEST0 user to read from this directory:

```
SQL> grant read on directory DIR_TESTCASE to IFSCXTXTEST0;
```

4. Connect as IFSCXTXTEST0 and create a `lexer` preference:

```
SQL> exec ctx_ddl.create_preference('mylexer', 'basic_lexer');
```

5. Disable theme indexing for this preference:

```
SQL> exec ctx_ddl.set_attribute('mylexer', 'index_themes', 'NO');
```

6. Create a temporary table to store the Word document:

```
SQL> create table ifs_basic_lob_table( id NUMBER PRIMARY KEY, name
VARCHAR2(64),content BLOB );
```

7. Create an Oracle Text index on the BLOB column:

```
SQL> create index content_i on ifs_basic_lob_table(content) indextype is
ctxsys.context parameters ('lexer mylexer');
```

8. Insert a row into the temporary table containing the lob locator and load the document using the following PL/SQL block:

```
SQL> DECLARE
    Dest_loc BLOB;
    Src_loc BFILE := BFILENAME('DIR_TESTCASE', 'ifsctxttest.doc');
BEGIN
    INSERT INTO ifs_basic_lob_table (id,name,content)
    VALUES (1,'ifsctxttest.doc',EMPTY_BLOB())
    RETURN content INTO dest_loc;
    DBMS_LOB.FILEOPEN(Src_loc, DBMS_LOB.LOB_READONLY);
    DBMS_LOB.LOADFROMFILE(Dest_loc, Src_loc, DBMS_LOB.GETLENGTH(Src_
loc));
    DBMS_LOB.FILECLOSE(Src_loc);
    COMMIT;
END;
/
```

9. Synchronize the index:

```
SQL> alter index content_i rebuild parameters('sync');
```

10. Perform a content-based query on the table containing the Word document:

```
SQL> SELECT id, name FROM ifs_basic_lob_table WHERE CONTAINS
(content,'Protocol') > 0;
```

If Oracle Text is operating properly, this should return the following row:

```

ID NAME
-----
1 ifsctxttest.doc
```

Any error messages that are returned should give you an indication of what could be causing the problem. If synchronizing the index or searching on the content fails, ensure you check the CTX_USER_INDEX_ERRORS for supplemental information, as ifsctxttest0:

```
SQL> select * from ctx_user_index_errors;
```

This information can be used to search *Oracle MetaLink* for possible solutions or supply support analysts with better diagnostic information.

Remember to review the Oracle Text documentation and the troubleshooting sections in the *Oracle Files Administrator's Guide* for information on configuring Oracle Text.

Tips:

- Ensure that you have the following locations in your LIBPATH on the database server:

```
$ORACLE_HOME/lib32
$ORACLE_HOME/ctx/lib
$ORACLE_HOME/ctx/bin
```

- Stop and start the database listener to apply any changes

Note: Remember to drop the IFSCXTXTEST0 user after these tests have been performed.

"Out of database cursors" Message Written to \$ORACLE_HOME/ifs/files/log/domain_name/node_name.log

The OPEN_CURSORS value in the `initsid.ora` is too low. Modify the `initsid.ora` file (or change the `SPFILE`) using a larger value for OPEN_CURSORS.

Server is Slow

Tuning is required.

See Also: The Oracle Files troubleshooting and performance chapter in *Oracle Files Administrator's Guide*

Cannot Connect to Protocol Servers

If you can log in to the Oracle Files Web Interface but cannot connect to some of the Oracle Files protocol servers, you must set the Oracle Files-specific password. Protocols with which to associate an Oracle Files-specific password were selected during Oracle Files configuration. By default, FTP and AFP require users to log in with an Oracle Files-specific password rather than a Single Sign-On password.

Connect to `http://host_name:port/files/app/ProtocolAccess` and set the Oracle Files-specific password for users.

See Also: *Oracle Files Administrator's Guide* for more information about configuring protocol servers

"503 Service Unavailable" Message

There are two possible causes for this:

- The `OC4J_ifs_files` instance is not running. You must restart the `OC4J_ifs_files` process after starting the Oracle Files domain (use the command `ifstl start` to start the Oracle Files domain).

Check the HTTP log for errors and start the `OC4J_ifs_files` instance. Then connect to `http://hostname:port/files/app`.

To start the `OC4J_ifs_files` process, run the following command in the `$ORACLE_HOME/opmn/bin` directory:

```
opmnctl startproc gid=OC4J_ifs_files
```

If you had previously started the `OC4J_iFS_files` process, use the following command to restart the process:

```
opmnctl restartproc gid=OC4J_iFS_files
```

- The `OC4J_iFS_files` instance is running, but the interface is still loading. Wait approximately one minute after starting `OC4J_iFS_files` before connecting.

Oracle Files Configuration Assistant Cannot Establish a Connection to a RAC Database With the Thin Driver

This occurs when the Oracle Files Configuration Assistant attempts to make a connection to a RAC database as `SYS 'AS SYSDBA'` using the thin JDBC driver, which fails.

To resolve this issue, you must create a new SYS user password:

1. On the database computer, run the following at the command line:

```
orapwd file=$ORACLE_HOME/dba/orapw password=password entries=5
```

Where *password* is the new value for the SYS user password.

2. Run the following two commands in SQL*Plus to change the password of the SYS user:

```
connect / as sysdba
ALTER USER sys IDENTIFIED BY password
```

Where *password* is the password that you specified in step 1.

3. Add the following line to the `init.ora` file:

```
REMOTE_LOGIN_PASSWORDFILE=EXCLUSIVE
```

Oracle Files Configuration Assistant "session_max_open_files must be set to 50" Error Message

The `session_max_open_files` value in the `initsid.ora` file is not set correctly. Modify the `initsid.ora` file and set the value of the `session_max_open_files` parameter to 50.

Edit the file and add the following line:

```
session_max_open_files=50
```

After editing the file, shut down the database and then restart it with the new `initsid.ora` file. Use the following command in SQL*Plus to start the database:

```
startup pfile="$ORACLE_HOME/pfile/initsid.ora"
```

Run the Oracle Files configuration assistant.

Broken Images on UNIX

Oracle Files uses Oracle UIX (User Interface XML) technology to generate web pages. UIX dynamically generates many images, such as buttons and tabs, appearing throughout the UI. Due to limitations in Java 2 Standard Edition (J2SE) prior to version 1.4, UIX requires an X server process in order to generate dynamic images on UNIX platforms.

Note: This limitation does not affect Windows platforms.

To locate the X server, the UIX runtime relies on the value of the DISPLAY environment variable. If the Web Client is running on a UNIX host, and some of the images in the UI appear broken or inconsistent, the problem may be that the value of the DISPLAY environment variable for the Web Client process is set incorrectly.

A common symptom of this problem is that instead of the rounded, beige buttons, UI pages are rendered using native browser buttons.

To verify the value of the DISPLAY environment variable for the Web Client process, open the `$ORACLE_HOME/opmn/conf/opmn.conf` file in a text editor, and locate the entry for the instance called `\OC4J_Portal\`:

```
<oc4j maxRetry="3" instanceName="OC4J_Portal" gid="OC4J_Portal" numProcs="1">
  <environment>
    <prop name="DISPLAY" value="your-host-name:0.0" />
  </environment>
</oc4j>
```

Change the value of the DISPLAY property to a running X server computer.

Note: During installation, the Oracle Universal Installer automatically populates the value of the DISPLAY property in `opmn.xml` using the value of the DISPLAY environment variable detected during the installation session. If you are running OUI remotely, such as from a desktop PC with X emulation software such as Hummingbird Exceed), this auto-detected value will be incorrect, because it will point to a remote X server that is not guaranteed to be available. The safest approach is to create an X server on the middle tier host and set the DISPLAY property to point to it. Consult your UNIX documentation on how to start an X server on your platform.

Troubleshooting Real Application Clusters

To ensure that the installation succeeds on the remote nodes you choose, select a path for Oracle home that is the same on all chosen nodes and is writable. Otherwise, installation on the remote nodes fails. No error message indicates this failure.

Default Port Numbers and Port Ranges

This appendix describes the port numbers automatically assigned by Oracle Universal Installer.

This appendix contains these topics:

- [Port Allocation Overview](#)
- [Component Port Numbers](#)
- [Oracle Port Usage \(Sorted by Component\)](#)
- [Oracle Port Usage \(Sorted by Port Number\)](#)

Port Allocation Overview

Oracle9iAS Infrastructure and Oracle Collaboration Suite automatically assign port numbers to a component when it is configured. The port number is assigned from a preallocated set of default port numbers and port ranges.

The following method is used to assign port numbers:

1. It is determined if the default port number is already in use by an Oracle or non-Oracle process.
2. If the default port number is not in use, it is assigned to the component.
3. If the default port number is already in use, an attempt is made to assign a number from the port range, starting with the lowest number and going up until a free port number is found.

Component Port Numbers

Oracle Universal Installer creates a file called `portlist.ini` showing the ports assigned during installation of Oracle9iAS Infrastructure and Oracle Collaboration Suite. The installation process automatically detects any port conflicts and chooses an alternate port in the range allocated for that component. The file is located at:

```
$ORACLE_HOME/install/portlist.ini
```

The `portlist.ini` file lists component entries using the "port name = port value" format. For example:

```
Oracle HTTP Server port = 7777
Oracle HTTP Server SSL port = 4443
Oracle HTTP Server listen port = 7778
Oracle HTTP Server SSL listen port = 4444
Oracle HTTP Server Jserv port = 8007
```

Enterprise Manager Servlet port = 1810

You can also view the port numbers by pointing your browser to the Oracle Collaboration Suite Welcome page and selecting the Ports tab.

`http://hostname:port_number/`

where the default `port_number` is 7777.

Note: Oracle Universal Installer uses the port numbers for select components during installation of Oracle Collaboration Suite. If you are planning on adding additional Oracle Collaboration Suite instances, make sure the installed instances are running at the time of additional installation.

Oracle9iAS Infrastructure Port Usage

Installation of the Oracle9iAS Infrastructure requires exclusive use of port 1521 on your computer. If one of your current system applications uses this port, then complete one of the following actions before installing Oracle9iAS Infrastructure:

- If you have an existing application using port 1521, then reconfigure the existing application to use another port.
- If you have an existing Oracle Net listener and an Oracle9i database, then proceed with the installation of Oracle9iAS Infrastructure. Your Oracle9iAS Infrastructure uses the existing Oracle Net listener.

Oracle Port Usage (Sorted by Component)

Table D-1 lists Oracle ports by components names.

Table D-1 Oracle Port Usage (Sorted by Component)

Component	Default Port Number	Port Number Range
Oracle9iAS Clickstream Intelligence		
Oracle9iAS Clickstream Collector Server	6675	Fixed
Oracle9iAS Clickstream Collector Agent	6666	Fixed
Oracle9iAS Clickstream Intelligence Collector Agent	6666	6666-6674
Oracle9iAS Clickstream Execution Engine	6676	Fixed
Oracle9iAS Clickstream Intelligence Viewer	Same as Oracle HTTP Server	Same as Oracle HTTP Server
Oracle9iAS Clickstream Runtime Administrator	Same as Oracle HTTP Server	Same as Oracle HTTP Server
Oracle9iAS Containers for J2EE		
Oracle9iAS Containers for J2EE AJP	3001	3001-3100
Oracle9iAS Containers for J2EE RMI	3101	3101-3200

Table D-1 (Cont.) Oracle Port Usage (Sorted by Component) (Cont.)

Component	Default Port Number	Port Number Range
Java Message Service (JMS) for Oracle9iAS Containers for J2EE	3201	3201-3300
Oracle9iAS Containers for J2EE HTTP Listener	3301	3301-3400
Oracle9iAS Forms Services		
Oracle9iAS Forms Services	Same as Oracle HTTP Server	Same as Oracle HTTP Server
Oracle HTTP Server		
Oracle HTTP Server- non-SSL	7777	7777-7877
Oracle HTTP Server- SSL	4443	4443-4543
Oracle HTTP Server Listen- non-SSL	7777	7777-7877
Oracle HTTP Server- non-SSL if Oracle9iAS Web Cache is installed and configured	7778	7777-7877
Oracle HTTP Server- SSL	4443	4443-4543
Oracle HTTP Server- SSL- Oracle9iAS Web Cache is installed and configured	4444	4443-4543
Oracle HTTP Server JServ Servlet Engine	8007	8007-8107
Oracle HTTP Server- Oracle Notification Service Requested Port	6003	6003-6099
Oracle HTTP Server- Oracle Notification Service Local Port	6100	6100-6199
Oracle HTTP Server- Oracle Notification Service Remote Port	6200	6200-6299
Oracle HTTP Server- Java Object Cache	7000	7000-7010
Oracle9iAS Portal		
Oracle9iAS Portal	Same as Oracle HTTP Server	Same as Oracle HTTP Server
Oracle9iAS Single Sign-On	5000	5000-5099
Oracle9iAS Reports Services		
Oracle9iAS Reports Services	3000	3000-3010
SQL*Net- For 6i Backward Compatibility Only	1950	1950-1960
Visigenics CORBA- Reports 9i	14000	14000-14010
Oracle Email		
Oracle Email	5100	5100-5200
IMAP4	143	Fixed
IMAP4- SSL	993	Fixed
POP3	110	Fixed

Table D-1 (Cont.) Oracle Port Usage (Sorted by Component) (Cont.)

Component	Default Port Number	Port Number Range
POP3- SSL	995	Fixed
SMTP	25	Fixed
NNTP	119	Fixed
NNTP- SSL	563	Fixed
Oracle9iAS Web Cache		
Oracle9iAS Web Cache HTTP Listen- non-SSL	7777	7777-7877
Oracle9iAS Web Cache HTTP Listen- SSL	4443	4443-4543
Oracle9iAS Web Cache Administration	4000	4000-4030
Oracle9iAS Wireless		
Oracle9iAS Wireless	Same as Oracle HTTP Server	Same as Oracle HTTP Server
Oracle9iAS Wireless PIM Notification Dispatcher	9000	9000-9100
Oracle Enterprise Manager		
Oracle Enterprise Manager Application Server Administration Service	1810, 1811	1812-1820
Oracle Enterprise Manager Intelligent Agent	1748, 1754, 1808, 1809	Fixed
Oracle Management Server	7771, 7772, 7773	7771-7773
Oracle Internet Directory		
Oracle Internet Directory	389, 4031-4040	4031-4040
Oracle Internet Directory- non-SSL	4032	
Oracle Internet Directory- SSL	636, 4031-4040	4031-4040
Oracle Calendar		
uniengd (UNIX daemon)	5730	
unisncd (UNIX daemon)	5731	
unidasd (UNIX daemon)	5732	
Oracle Calendar server manager	5734	
Oracle Files		
Oracle Files Domain Controller	53000 range (auto-assigned)	Dynamic
Main Oracle Files Node	53000 range (auto-assigned)	Dynamic
Oracle Files HTTP Node	53000 range (auto-assigned)	Dynamic
LDAP- non-SSL	Same as Oracle Internet Directory	Same as Oracle Internet Directory

Table D–1 (Cont.) Oracle Port Usage (Sorted by Component) (Cont.)

Component	Default Port Number	Port Number Range
LDAP- SSL	Same as Oracle Internet Directory	Same as Oracle Internet Directory
AFP	548	Fixed
FTP	21	Other typical values: 2100 or 21000
NFS	2049	4048 and 4049 for Mount Server
SMB	139	Fixed
Oracle Workflow		
TNS	1521	Fixed

Oracle Port Usage (Sorted by Port Number)

[Table D–2](#) lists Oracle ports in ascending order.

Table D–2 Oracle Port Usage (Sorted By Port Number)

Port Number	Component
21	Oracle Files - FTP (default value)
110	Oracle Email - POP
119	Oracle Email - NNTP
139	Oracle Files - SMB
389	LDAP (Oracle Internet Directory)
548	Oracle Files - AFP
563	Oracle Email NNTP- SSL
636	Oracle Internet Directory- SSL
995	Oracle Email POP- SSL
1521	Oracle Workflow - TNS
1748	Oracle Enterprise Manager Intelligent Agent
1754	Oracle Enterprise Manager Intelligent Agent
1808	Oracle Enterprise Manager Intelligent Agent
1809	Oracle Enterprise Manager Intelligent Agent
1810	Oracle Enterprise Manager Application Server Service
1811	Oracle Enterprise Manager Application Server Service
1950	Oracle9iAS Reports Services SQL*Net
2049	Oracle Files - NFS (default value)
2070	Oracle9iAS Syndication Server (OSS); To access OSS
3001	Oracle9iAS Containers for J2EE - AJP
3101	Oracle9iAS Containers for J2EE - RMI
3201	Oracle9iAS Containers for J2EE - JMS
3301	Oracle9iAS Containers for J2EE HTTP Listener

Table D–2 (Cont.) Oracle Port Usage (Sorted By Port Number) (Cont.)

Port Number	Component
4000	Oracle9iAS Web Cache Administration Port
4001	Oracle9iAS Web Cache Invalidation Port
4002	Oracle9iAS Web Cache Statistics
4031	Oracle Internet Directory SSL
4032	Oracle Internet Directory non-SSL
4443	Oracle HTTP Server- SSL, Oracle HTTP Server Listen- SSL, Oracle9iAS Web Cache Listen- SSL
4444	Oracle HTTP Server Listen- SSL if Oracle9iAS Web Cache is installed and configured
5000	Oracle9iAS Single Sign-On
5100	Oracle Email
5730	Oracle Calendar
5731	Oracle Calendar
5732	Oracle Calendar
5734	Oracle Calendar server manager
6003	Oracle HTTP Server- Oracle Notification Service Request Port
6100	Oracle HTTP Server- Oracle Notification Service Local Port
6200	Oracle HTTP Server- Oracle Notification Service Remote Port
6666	Oracle9iAS Clickstream Collector Agent
6675	Oracle9iAS Clickstream Collector Server
6676	Oracle9iAS Clickstream Execution Engine
7000	Oracle HTTP Server Java Object Cache
7771	Oracle Management Server
7772	Oracle Management Server
7773	Oracle Management Server
7777	Oracle HTTP Server- non-SSL, Oracle HTTP Server Listen- non-SSL, Oracle9iAS Web Cache Listen- non-SSL
7778	Oracle HTTP Server Listen- non-SSL if Oracle9iAS Web Cache is installed and configured
8007	Oracle HTTP Server JServ Servlet Engine
9000	Oracle9iAS Wireless PIM Notification Dispatcher
14000	Oracle9iAS Reports Services Visigenics - CORBA
16001	IIOP
53000 range	Oracle Files Domain Controller and Nodes
53000 range	Oracle Files Main Node
53000 range	Oracle Files HTTP Node

Windows Services

This appendix lists the services that the Oracle Collaboration Suite for Windows installation creates during installation.

This appendix includes these topics:

- [Accessing Windows Services](#)
- [Services for Oracle Collaboration Suite Installations](#)
- [Services for Oracle Voicemail & Fax Installation](#)

Accessing Windows Services

To open Services on Windows NT, choose **Start > Settings > Control Panel > Services**.

To open Services on Windows 2000 and Windows XP, choose **Start > Programs > Administrative Tools > Services**.

Services for Oracle Collaboration Suite Installations

[Table E-1](#) shows the Windows services created during the three Oracle Collaboration Suite installations.

ORACLE_HOME represents the Oracle home name.

Table E-1 Windows Services for Oracle Collaboration Suite

Install Type	Windows Services
Oracle9iAS Infrastructure	<ul style="list-style-type: none"> ■ Oracle OLAP 9.0.1.0.1 (Online Analytical Processing) ■ Oracle OLAP Agent ■ OracleORACLE_HOMEAgent ■ OracleORACLE_HOMEClientCache ■ OracleORACLE_HOMEEMWebsite ■ OracleORACLE_HOMEInternetDirectory_SID¹ ■ OracleORACLE_HOMEManagementServer² ■ OracleORACLE_HOMEPagingServer ■ OracleORACLE_HOMEProcessManager⁵ ■ OracleORACLE_HOMETNSListener ■ OracleORACLE_HOMEWbCache ■ OracleORACLE_HOMEWbCacheAdmin ■ OracleORACLE_HOMEWbCacheMon ■ OracleServiceSID³
Oracle Collaboration Suite information storage	<ul style="list-style-type: none"> ■ OracleORACLE_HOMEAgent ■ OracleORACLE_HOMEClientCache ■ OracleORACLE_HOMESNMPPeerEncapsulator ■ OracleORACLE_HOMESNMPPeerMasterAgent ■ OracleORACLE_HOMETNSListener⁴ ■ OracleServiceSIDn
Oracle Collaboration Suite	<ul style="list-style-type: none"> ■ Calendar Corporate-Wide Services ■ Calendar Directory Access Server ■ Calendar Engine ■ Calendar Lock Manager ■ Calendar Synchronous Network Connections ■ OracleORACLE_HOMEAgent ■ OracleORACLE_HOMEClientCache ■ OracleORACLE_HOMEEMWebsite (Enterprise Manager Web site) ■ OracleORACLE_HOMEProcessManager⁵ ■ OracleORACLE_HOMETNSListener ■ OracleORACLE_HOMEWbCache ■ OracleORACLE_HOMEWbCacheAdmin (Web Cache Administrator) ■ OracleORACLE_HOMEWbCacheMon (Web Cache Monitor)

¹ Not created if Oracle Internet Directory is deselected during Oracle9iAS Infrastructure installation.

² Not created if Oracle Management Server is deselected during Oracle9iAS Infrastructure installation.

³ Created during Oracle9iAS Metadata Repository installation.

⁴ Not created if Software Only was selected as the database configuration type.

⁵ Created during Oracle HTTP Server installation.

Services for Oracle Voicemail & Fax Installation

Table E-2 shows the Windows services created during the Oracle Voicemail & Fax installation.

Table E-2 *Windows Services for Oracle Voicemail & Fax*

Install Type	Windows Service
Oracle Voicemail & Fax	<ul style="list-style-type: none">■ Oracle Unified Messaging-Attendant■ Oracle Unified Messaging-FaxRecv (Fax)■ Oracle Unified Messaging-MWI (Message Waiting Indicator)■ Oracle Unified Messaging-Process Manager■ Oracle Unified Messaging-Recording■ Oracle Unified Messaging-Retrieval■ Oracle Unified Messaging-Routing■ Oracle Unified Messaging-Recovery

Installing Oracle Calendar Standalone

This chapter describes requirements and procedures for installing the components of Oracle Calendar standalone, including:

- **Oracle Calendar server:** Required in order to run the remaining components of Oracle Calendar. Complemented by the Oracle Calendar Administrator.
- **Oracle Calendar application system:** The application framework that controls the following components:
 - Oracle Calendar Web client
 - Oracle Calendar Web services
 - Oracle Sync Server

Instructions in this chapter apply to UNIX-based systems.

You can install Oracle Calendar server and the Oracle Calendar application system on the same host or on multiple, separate hosts across a network.

This appendix contains these topics:

- [System Requirements](#)
- [Preinstallation](#)
- [Installation](#)
- [Upgrades](#)
- [Postinstallation Configuration](#)
- [Oracle Calendar Deinstallation](#)
- [General Issues and Workarounds](#)

System Requirements

Since you can install Oracle Calendar server and the application system together or separately, the following sections list requirements common to both components and separate to each.

This section contains the following topics:

- [Common Requirements](#)
- [Oracle Calendar Server Requirements](#)
- [Oracle Calendar Application System Requirements](#)

Common Requirements

- **Operating system:** UNIX-based systems, as described in the requirements for Oracle Collaboration Suite
- **Colors:** A minimum of 256 display colors
- **Disk space:** Up to 150 MB free disk space may be necessary for installation
- **Patches:** On AIX-based systems, the same patches apply as are listed in the requirements for Oracle Collaboration Suite

See Also: ["Operating System Patches and Packages"](#) on page 2-3

Oracle Calendar Server Requirements

- **Privileges:** During installation, the Oracle Universal Installer may require you to run some scripts with root privileges. For more information, see the documentation included with Oracle Universal Installer.
- **RAM:** An estimated 512 MB of RAM or more is needed for computers handling a large number of users or services. To calculate your exact requirements, see Appendix A, "Disk Space and Memory," in the *Oracle Calendar Administrator's Guide*.
- **Disk space:** 400 MB of disk space, plus space for the Oracle Calendar database and log files
- **Messaging server:** An SMTP messaging server for mail notifications
- **Web browser:** One of the following Web browsers, in order to use the Oracle Calendar Administrator:
 - Internet Explorer 5.5 or 6.0 (Windows only)
 - Netscape 7.0
 - Mozilla 1.2
- **Kernel parameters:** See Appendix B, "Adjusting Calendar Kernel Parameters," in the *Oracle Calendar Administrator's Guide* for details on the kernel parameters needed to run Oracle Calendar server on UNIX-based systems.

Note: Make sure you set the `shmsys:shminfo_shmmin` parameter to 1. This is different from other parameters, whose values are generally a maximum or sum of the host's existing value and the Calendar requirement. If you do not set `shmsys:shminfo_shmmin` to 1, you will not be able to start the Calendar server after installation.

Oracle Calendar Application System Requirements

- **Web server:** Oracle HTTP Server or Apache Web server. On Apache Web servers, you must have Apache 1.3.27 with mod-fastcgi 2.2.12. Find the latter through FTP access, as it is not readily available from the Apache Web site. Oracle Calendar standalone does not work with Apache 2.x and mod-fastcgi 2.4.x.
- **RAM:** 256 MB RAM or more is recommended for computers handling a large number of users.
- **Disk space:** 100 MB of disk space for installation, plus 200 MB for operation (linkdb and sessiondb disk space; more space may be required for heavy deployments).

- **Oracle Calendar Web client browsers:** Users must have one of the following browsers in order to use the Oracle Calendar Web client component of the Oracle Calendar application system:
 - Internet Explorer 5.x, 6.x (Windows)
 - Internet Explorer 5.x (Macintosh OS 9 only)
 - Netscape 6.x, 7.x (Linux x86, Macintosh, Windows)
 - Mozilla (Linux x86, Macintosh, Windows)
 - Safari (Macintosh OS X only)
 - Lynx 2.8.4 Pre5 (for Accessible mode, standalone only)

Preinstallation

This section contains important information you need to know before installing Oracle Calendar server and the Oracle Calendar application system, including:

- [Setting up your Directory Server](#)
- [Planning Separate Installations of the Oracle Calendar Application System and Server](#)
- [Oracle Calendar Application System Considerations.](#)

Note: If you have a previous version of Oracle Calendar installed, please see "[Upgrades](#)" on page F-11, for information on working with other versions.

Setting up your Directory Server

When installed in standalone mode, the Oracle Calendar server can be used with a third party external directory server. Support for the Lightweight Directory Access Protocol (LDAP) is offered through separate connectors:

- LDAP Connector 9.0.4 for Sun ONE Directory Server
- LDAP Connector 9.0.4 for OpenLDAP
- LDAP Connector 9.0.4 for Syntegra Aphelion Directory Server
- LDAP Connector 9.0.4 for Critical Path InJoin Directory Server

Before installing Oracle Calendar server, you must use your LDAP connector to extend the directory schema. Directory servers have schemas that define the information they store. These schemas consist, amongst other things, of objects and attributes. The directory server schema needs to be extended to include objects and attributes needed by the Calendar server. For a list of the extensions to the Oracle Calendar server schema, see Appendix H, "Calendar Extensions to Directory Server Schema," of the *Oracle Calendar Reference Manual*.

This section contains the following topics:

- [Sun ONE Directory Server](#)
- [OpenLDAP](#)
- [Syntegra Aphelion Directory Server](#)
- [Critical Path InJoin Directory Server](#)

- [Terminology for Directory Servers](#)

Sun ONE Directory Server

These steps apply to the Sun ONE and iPlanet 5.x Directory Servers.

1. Extract the files from the tar file `ldapc0904000_SunOne_unix_en_rtm1.tar` included in the Oracle Calendar server package.
2. Find the file `SunOne/calendar-schema.ldif`.
3. Use this file with the `ldapmodify` utility to modify the directory entries:

```
% ldapmodify -h host -p port -D Directory_Manager_DN -w Directory_Manager_Password -f "calendar-schema.ldif"
```
4. Verify that no error is reported.

OpenLDAP

These steps apply to the OpenLDAP Directory Servers version 2.x, and later.

1. Extract the files from the tar file `ldapc0904000_openldap_unix_en_rtm1.tar` included in the Oracle Calendar server package.
2. Find the file `openldap/calendar.schema`.
3. Locate the OpenLDAP configuration directory. On UNIX, it is usually set to `/usr/local/etc/openldap`. This directory will be used in the next examples.
4. Copy the file `calendar.schema` to `/usr/local/etc/openldap/schema`, assuming that the configuration directory is in `/usr/local/etc/openldap`.
5. Edit the file `/usr/local/etc/openldap/slapd.conf`.
6. Locate the line that contains

```
include /usr/local/etc/openldap/schema/cosine.schema
```
7. If it has not been already been added, add the line:

```
include /usr/local/etc/openldap/schema/inetorgperson.schema
```
8. Add the line:

```
include /usr/local/etc/openldap/schema/calendar.schema
```
9. In the database section, add the line

```
index ctcalkitemid pres,eq
```
10. Restart the `slapd` server.

Syntegra Aphelion Directory Server

These steps apply to the Syntegra Aphelion Directory Server.

1. Extract the files from the tar file `ldapc0904000_syntegra_unix_en_rtm1.tar`, included in the Oracle Calendar server package, to a temporary directory.

The temporary directory should contain the following three files:

```
syntegra/oidtable.gen_cst
syntegra/oidtable.oc_cst
syntegra/oidtable.at_cst
```

2. To prepare the directory server, you will need to install these files to configure ctCal directory objects. Append the content of these files (containing the Oracle Calendar server schema's object identifier numbers, the object classes, and the attributes) to the corresponding Syntegra Aphelion (object identifier) table files:

```
/usr/var/osi/oidtable.gen
/usr/var/osi/oidtable.oc
/usr/var/osi/oidtable.at
```

3. Restart the directory server to allow the configuration changes to take effect.

Critical Path InJoin Directory Server

These steps apply to the Critical Path InJoin Directory Server version 4.x and include:

- [Extending the Schema](#)
- [Creating Name Bindings](#)
- [Setting the Oracle Calendar Base DN](#)
- [Granting Anonymous Read Access \(optional\)](#)

Extending the Schema

1. Extract the files from the tar file `ldapc0904000_injoin_unix_en_rtml.tar`, included in the Oracle Calendar server package, in a staging directory. The directory should contain the following files:

```
injoin/calendar_acsp
injoin/calendar_admin_aci
injoin/calendar_anonymous_aci
injoin/calendar-attribute.schema
injoin/calendar_local
injoin/calendar-objc.schema
```

2. Type `http://iCon_host:iCon_port` in the location field to go to the iCon administration page. The iCon port is set to 1500 by default.
3. On the left tab, click the **Schema** navigational tab.
4. On the right windows, click **Schema Import**.
5. Copy the content of the file `calendar-attribute.schema` to the New attributes in LDAPv3 format text area.
6. Click **Schema Import**.
7. On the left tab, click the **Schema** navigational tab and on the right window, click **Schema Import**.
8. Copy the content of the file `calendar-objc.schema` to the New object classes in LDAPv3 format text area.
9. Click **Schema Import**.

Creating Name Bindings

The Oracle Calendar server introduces two types of structural object classes, `ctCalAdmin` and `ctCalResource`. The name binding registry must be updated to allow these types of entries to exist under an `organizationalUnit` entry.

To create a name binding for `ctCalAdmin`:

1. Type `http://iCon_host:iCon_port` in the location field to go to the iCon administration page. The iCon port is set to 1500 by default.
2. On the left tab, click the **Schema** navigational tab.
3. Click **Create a new name binding**.
4. Select **organizationalUnit** from the **Superior** list box.
5. Select **ctCalAdmin** from the **Subordinate** list box.
6. Select **ctCalXItemId** from the **Naming attributes** list box.
7. Click **Create Name Binding**.

Creating a name binding for `ctCalResource`:

1. Type `http://iCon_host:iCon_port` in the location field to go to the iCon administration page. The iCon port is set to 1500 by default.
2. On the left tab, click the **Schema** navigational tab.
3. Click **Create a new name binding**.
4. Select **organizationalUnit** from the **Superior** list box.
5. Select **ctCalResource** from the **Subordinate** list box.
6. Select **commonName** from the **Naming attributes** list box.
7. Click **Create Name Binding**.

Setting the Oracle Calendar Base DN

The subtree where the Oracle Calendar server will be installed must be set as an Access Control Specific Point (ACSP) subtree. In most installations, this is already the case. The following procedure shows how to do this.

1. Copy the files `calendar_acsp`, `calendar_anonymous_aci`, `calendar_local` and `calendar_admin_aci` to the working directory of your `dsa`.
2. Edit the `calendar_local` to match your deployment.

Set the value of the macro `ctBaseDN` to the location where the Oracle Calendar server will be installed (BASEDN). For example:

```
BASEDN: o=acme,c=us
=ctBaseDN Rc("us") Ro("acme")
BASEDN: ou=School of Law, o=ABC University,c=us
=ctBASEDN Rc("us") Ro("ABC University") Rou("Shool of Law")
```

3. Go to the `dsa` working directory. For example: `/opt/ids/ICon/dsa1`
4. Start the `odsadmin` directory access tool by typing `odsadmin` at the command prompt.
5. Type `bman` to bind as the directory manager:

```
odsadmin> bman
```

6. Enter the directory manager password when prompted.
7. Make the Oracle Calendar BASEDN an ACSP (unless it is already set up).

```
odsadmin> run calendar_acsp ~
```

Granting Anonymous Read Access (optional)

The Oracle Calendar server binds anonymously or as a "bind user" when performing a search operation. If your directory server does not allow anonymous read access, you need to create an entry that has read access to the subtree where the Oracle Calendar server will be installed. You will need to supply the distinguished name (DN) of this entry and its password during the Oracle Calendar server installation. The following procedure shows how to grant read access for anonymous searches.

1. If you have already closed the `odsadmin` session, open it again by typing `odsadmin` from the `dsa` working directory.
2. Type `bman` to bind as the directory manager:

```
odsadmin> bman
```
3. Enter the directory manager password when prompted.
4. Run the command file which will set the ACI to permit anonymous read-only access. This will modify your directory server's security.

```
odsadmin> run calendar_anonymous_aci ~
```

Terminology for Directory Servers

Use the following table to determine the correlation between the directory server parameters required during installation and the terminology used for each separate product.

Table F-1 Calendar server / directory server concordance

Definition of concept	Oracle Calendar Server	Sun ONE Directory Server	Syntegra Aphelion Directory Server	Critical Path InJoin Directory Server
Computer on which Directory Server is installed	LDAP Host	Directory Server host		Directory Server host
Port number for Directory Server (LDAP) connections	LDAP Port	Directory Server port number	LDAP daemon port	Directory Server address port number
The point in the directory hierarchy from which searches are performed	Base DN	BaseDN / Directory suffix / search root	DN located beneath context prefix	Entry Starting Point / context prefix
"Superuser" for the directory (user with unrestricted access)	SuperUserDN	RootDN or Unrestricted user	Manager DN	Directory Administrator's DN
Password for unrestricted access	SuperUserDN Password	RootDN or Unrestricted user password	Manager DN Password	Directory Administrator's Password
The "parent" entry, offset from the baseDN, for the 6 reserved Oracle Calendar users	Oracle Calendar server Administrators' Parent DN	n/a	n/a	n/a
A new group, offset from the baseDN, for the 6 reserved Oracle Calendar users	Oracle Calendar server Administrators' Group DN	n/a	n/a	n/a

Planning Separate Installations of the Oracle Calendar Application System and Server

The Oracle Universal Installer allows you to install and configure the Oracle Calendar application system and server on the same host. Both components are configured to see one another's host and port. However, for large deployments, it is best to install the server and application system on separate hosts. You can do this by running the Installer on each host and selecting which component or components you want to install.

Generally, you should start by installing the server. You will need to enter a temporary value when prompted for the application system's host name and port. When you install the application system, you will need to enter information on the server you've just installed. Afterwards, you should edit the server's configuration file to enable resource approval, as described in ["Installation"](#) on page F-8.

For more information on editing Oracle Calendar configuration files, see the *Oracle Calendar Reference Manual*.

Oracle Calendar Application System Considerations

For security reasons, it is best that the Sync Server component only be accessible through SSL ([https](#)) connections. You may also want to install Oracle Sync Server on a separate host for easier accessibility from phones. Keep in mind that some phones support VPN access through a firewall, while others do not.

It is also best to only use Web services through SSL connections.

Installation

This section explains how to install Oracle Calendar standalone components on UNIX-based systems. This section contains the following topics:

- [Installing Oracle Calendar Server and Oracle Calendar Application System](#)
- [Installing Oracle Calendar Server Only](#)
- [Installing Oracle Calendar Application System Only](#)
- [Installing Multiple Instances of Oracle Calendar](#)
- [Manually Running the Oracle Calendar Configuration Assistant](#)

Installing Oracle Calendar Server and Oracle Calendar Application System

1. Extract or copy the Oracle Calendar installation files to a temporary directory.
2. In your temporary directory, go to the subdirectory
`./Disk1/`
3. Start the Oracle Universal Installer with the command
`./runInstaller`
4. Click **Next** on the Welcome screen and follow the installation instructions.
5. Unmount Disk 1, eject Disk 1, and mount Disk 5. On the Specify File Locations screen, select the following:

`/Source_Path/calendar_standalone/stage/products.jar`

You must select this path to install the standalone version of Oracle Calendar.

6. Also on the Specify File Locations screen, enter an `ORACLE_HOME` name and path, then click **Next**. The path you enter can be up to 74 characters long. If you have a previous version of Oracle Calendar installed and you want to upgrade it, do not overwrite it.
7. Select the components you want to install and click **Next**. Note that Oracle Calendar Web client, Sync Server and Web services cannot be installed unless you select **Oracle Calendar application system**. Oracle Calendar will be installed in the following locations:

Component	Location
Oracle Calendar server	\$ORACLE_HOME/ocal/
Oracle Calendar Administrator	\$ORACLE_HOME/ocad/
Oracle Calendar application system	\$ORACLE_HOME/ocas/

8. If the kernel parameters on your computer are not sufficient to run the Oracle Calendar server, an information dialog box opens explaining which parameters you might have to change. You should make whatever changes are necessary, restart the computer and restart the installation. For details on calculating required kernel parameters, see Appendix B, "Adjusting Calendar Kernel Parameters," in the *Oracle Calendar Administrator's Guide*.
9. Select the time zone in which Oracle Calendar users will be working and click **Next**.
10. Select the directory server you will be using. (Select **Internal** if you do not have a directory server.) Click **Next**. You will be prompted for directory server configuration information such as **Host**, **Port** and **Base DN**, as described in "[Setting up your Directory Server](#)" on page F-3.

Notes: If you select **Critical Path InJoin Directory Server**:

- When you are prompted for the BASEDN subtree, ensure that you are setting it to the same location you set in `calendar_local`, as described in "[Setting the Oracle Calendar Base DN](#)" on page F-6.
 - If your directory server has anonymous access disabled, clear the **Anonymous binding permitted** check box. Enter a DN and password of an entry that has read access on the Oracle Calendar BASEDN subtree.
 - When prompted for the Oracle Calendar admin group name, leave it to the default value, unless you have changed the value in the `calendar_local` file.
-

11. After entering your directory server information, enter a password on the Oracle Calendar Administrative Password screen.
12. On the Oracle Calendar Node-ID screen, enter a Node-ID. This must be a unique value between 1 and 4999.
13. If this is your first installation of the Oracle Calendar server, select **Yes** on the Oracle Calendar Master Node screen to make the current installation the master node. You must have one master node on your network in order for Web services and Sync Server to work.
14. Click **Next** and follow the remaining instructions to complete the installation.
15. If you want to upgrade data from a previous version of Oracle Calendar, go to "[Upgrades](#)" on page F-11. Otherwise, go to "[Postinstallation Configuration](#)" on page F-16.

Installing Oracle Calendar Server Only

The procedure for installing just the Oracle Calendar server is similar to that described in ["Installing Oracle Calendar Server and Oracle Calendar Application System"](#) on page F-8, with the differences being:

- In step 7 you must select the **Oracle Calendar server** and *not* the **Oracle Calendar application system**.
- You will be prompted for the application system's host and port. If you do not know these yet, you can enter temporary values and, later, edit the `unison.ini` file server with the correct values. For example:

```
[RESOURCE_APPROVAL]
url=http://server:port/ocas-bin/ocas.fcgi
```

Installing Oracle Calendar Application System Only

The procedure for installing just the Oracle Calendar application system and its components is similar to that described in ["Installing Oracle Calendar Server and Oracle Calendar Application System"](#) on page F-8, with the differences being:

- In step 7, you must select **Oracle Calendar application system** (and any of its components), *not* **Oracle Calendar server** or the **Oracle Calendar Administrator**.
- After step 7, you will only be prompted to enter the **Host**, **Port** and **Node-ID** for the Oracle Calendar server. If you do not know these values, you can enter temporary values and, later, edit the `ocas.conf` file in the application system with the correct values. For example:

```
[CONNECTION]
mnode=Host:Engine_Port,node
```

Installing Multiple Instances of Oracle Calendar

If you install two instances of Oracle Calendar (two instances each of the Oracle Calendar server and the Oracle Calendar application system) on the same infrastructure, the `orclguest` account may not be provisioned for the second instance. If this happens, you must point the second instance of the Oracle Calendar application system to the first instance of the Oracle Calendar server.

To do this, edit the Oracle Calendar application system configuration file on the second instance (`$ORACLE_HOME/ocas/conf/ocas.conf`) as follows:

```
[CONNECTION]
mnode=host_name:engine_port,node
```

Where `host_name` is the first instance of the Oracle Calendar server and `node` is the master node.

Manually Running the Oracle Calendar Configuration Assistant

The Oracle Collaboration Suite installation program runs an Oracle Calendar server configuration assistant, a tool that configures Oracle Calendar standalone to work with your system. If you encounter an error during installation due to a problem with your setup (for example, if a host URL you specified could not be read) you should manually run this configuration assistant once you have fixed the problem.

To manually run the configuration assistant:

1. Set your `ORACLE_HOME` environment variable to the directory where Oracle Calendar is installed.

2. Set your LIBPATH environment variable as follows:

```
$ORACLE_HOME/lib32:$ORACLE_HOME/ocal/sbin
```

3. Open the following log file:

```
$ORACLE_HOME/cfgtoollogs/configtoolsDATE_TIME.log
```

4. Locate the configuration assistant header; for example:

```
-----  
Launched configuration assistant 'Calendar Server Configuration Assistant'  
-----
```

5. Underneath the header, copy the command that was created during installation. The command will start with something similar to:

```
/home/myuser/oracle_home/jre...
```

And end with something similar to:

```
... -epw -DSDS OID -portDAS 5736 -DSMgrdn cn=orcladmin -emgrp -mme -ePIM  
-eimt -eclient -tzkey MEZ-1MESZ -silent
```

6. Run the command line you copied, making sure to replace the following parameters:

Parameter	Replace With
-epw	-nodepw <ias_admin_password>
-emgrp	-DSMgrp <DSMgrdn_user_password> (The DSMgrdn user is specified in the command line; for example, -DSMgrdn cn=orcladmin.)
-ecsm	-csmid <password_for_new_csm>

Upgrades

This section explains how to upgrade your data for Oracle Calendar and the Oracle Calendar application system. Make sure you read and follow these directions before removing your previous installation of Oracle Calendar.

This section includes these topics:

- [Server Upgrade](#)
- [Oracle Calendar Application System Upgrade](#)

Note: Before performing an upgrade, you are advised to re-evaluate your sizing calculations based on the requirements provided for the new software. See Appendix A, "Disk Space and Memory" in the *Oracle Calendar Administrator's Guide* to calculate disk space and memory requirements. For CPU usage, the hardware requirements have changed as a result of added functionality. If in your current Oracle Calendar installation you track regular peaks in CPU usage at 60%, or greater, several times a day, you may require additional CPU for a new installation. You will also notice increased CPU usage if your deployment contains previous versions of the Oracle Calendar application system working against a new Oracle Calendar server.

Server Upgrade

You can upgrade to Oracle Calendar server Release 2 (9.0.4) from:

- CorporateTime Server 5.3
- CorporateTime Server 5.4 (Oracle branded)
- Oracle Calendar server 5.5 (part of Oracle Collaboration Suite Release 1 (9.0.3))

If your installation is older than 5.3, you must upgrade it to 5.4 before you can upgrade to Release 2 (9.0.4).

Depending on the version you have, you may be able to do an automatic upgrade, or you may have to perform a manual upgrade. You can also install Oracle Calendar to coexist with your previous version.

This section contains the following topics:

- [Supported Automated Upgrade Paths](#)
- [Supported Manual Upgrade Path](#)
- [Coexistence](#)
- [Upgrading the Server](#)

Supported Automated Upgrade Paths

You can automatically upgrade Oracle Calendar from:

- 5.4 (or 5.3) internal to standalone 9.0.4 internal
- 5.4 (or 5.3) external to standalone 9.0.4 external (with supported 9.0.4 directory servers only)

Supported Manual Upgrade Path

You must do a manual upgrade when upgrading from standalone 9.0.4 internal to standalone 9.0.4 external. This involves a manual migration of the LDAP directory with supported third-party directory servers only. The following steps provide an overview of this procedure using the iPlanet directory server.

See Also: Doc ID 268950.1 on <http://metalink.oracle.com> for more detailed instructions.

Step 1 Install Oracle Calendar Standalone with iPlanet Directory Server

When you install Oracle Calendar standalone with iPlanet Directory Server, use the same node network configuration (nodes and node IDs) as your current configuration.

Step 2 Migrate the User and Resource Entries to iPlanet Directory Server

User and resource entries must be exported from Oracle Internet Directory to an LDAP Data Interchange Format (LDIF) file, then imported to iPlanet Directory Server. Depending on your setup you may need to add a `userPassword` attribute for resources to iPlanet Directory Server.

Step 3 Reconfigure the .ini Files

Update the `.ini` files on the Oracle Calendar standalone external installation so that they match the settings in the Oracle Calendar standalone internal installation.

Step 4 Migrate the Calendar Database

Migrating the calendar database involves moving the calendar nodes from the Oracle Calendar standalone internal installation to the Oracle Calendar standalone external installation, then reconfiguring the node network to recognize this change.

Coexistence

Coexistence can be useful for a large organization that needs to upgrade its current installation to a new version. The ability to have nodes and servers of different versions connected and running at the same time can help reduce the down time required to achieve the upgrade.

It is important to note that coexistence between Oracle Calendar servers of different versions is viewed as a migration step towards having a uniform (same version) network of Oracle Calendar servers. It is not recommended that a mix of different versions be sustained for a long period of time or permanently. There are limitations in having two servers of different versions co-exist. For example, the right version of utilities must be used on the corresponding server; also, Web services 9.0.4 will only work when all connected servers are upgraded to version 9.0.4.

Supported coexisting version combinations include:

- Standalone 9.0.4 with 5.3 or 5.4 (all internal, or all external to the same directory)

Unsupported coexisting version combinations include:

- Standalone 9.0.4 with pre-5.3
- Standalone 9.0.4 with 5.5 Oracle Collaboration Suite Release 1 (9.0.3)

Supported coexisting external/internal installations include:

Coexistence is supported for the following external (LDAP) and internal (no LDAP) combinations:

- Oracle Collaboration Suite Release 2 (9.0.4.1) with standalone 9.0.4 (internal or external using DIP)
- Standalone 9.0.4 external with standalone 9.0.4 internal
- Standalone 9.0.4 internal with Oracle Collaboration Suite Release 2 (9.0.4.1)

Upgrading the Server

Notes:

- Oracle Calendar server version 5.x is supported only on AIX version 4.3.3, and Oracle Calendar server Release 2 (9.0.4.1) is supported only on AIX version 5L. Therefore, to upgrade from Oracle Calendar server version 5.x to Oracle Calendar server Release 2 (9.0.4.1), you need Oracle Calendar server Release 2 (9.0.4.1) installed on a separate target system running AIX version 5L.
 - Before you start, it is recommended that you back up your data in case you want to restore your previous version at a later time. For details, see Chapter 15, "Node Maintenance," in the *Oracle Calendar Administrator's Guide*.
 - When you install Oracle Calendar Release 2 (9.0.4.1), a default node is created. This will be removed when you upgrade data from an older installation. If you have any important data stored in the new node, you should back it up before upgrading.
-
-

1. If your previous version is 5.2 or earlier, you must upgrade to version 5.4. For instructions on how to do this, see the version 5.4 Readme.
2. Install Oracle Calendar server standalone on AIX version 5L, as described in "[Installation](#)" on page F-8.
3. Make sure that Oracle Calendar server version 5.x has been stopped on the AIX 4.3.3 host. Create a tar file of the /users/unison directory on the AIX 4.3.3 host, using the following command:

```
tar -cvf unison.tar /users/unison
```

4. FTP the unison.tar file to the target computer on which Oracle Calendar server Release 2 (9.0.4.1) is installed on AIX version 5L.
5. Create a /users directory on the target computer, if one does not already exist. Then, untar unison.tar to the /users directory, using the following command:

```
tar xvf unison.tar
```

6. Stop Oracle Calendar server 9.0.4, if it has been started.
7. Set the environment variable to your Oracle Calendar server 9.0.4, as in the following example:

```
setenv ORACLE_HOME
```

8. From \$ORACLE_HOME/ocal/upgrade, run ocalPreUpg.sh as root. This will change the ownership of your Oracle Calendar 5.x installation.
9. While logged on as the user who installed Oracle Calendar 9.0.4 (that is, *not* as root), run ocalUpg.sh from \$ORACLE_HOME/ocal/upgrade using the following syntax:

```
./ocalUpg.sh -srcpath <current source location> -dstpath $ORACLE_HOME
```

Where:

- -srcpath: Location of your Oracle Calendar 5.x installation (/users/unison)
 - -dstpath: Location of the new Oracle Calendar installation (ORACLE_HOME)
10. If your server is coexisting with previous versions, you need to add the following parameters to \$ORACLE_HOME/ocal/misc/unison.ini on the 9.0.4 calendar server.

```
Section: [ENG]
Parameter: usermailmap
Value: "o"
```

```
Section: [ENG]
Parameter: coexist_cwsbasicauth
Value: TRUE
```

```
Section: [ACE_PLUGINS_SERVER]
Parameter: cs-standard_coexistence
Value: TRUE
```

Important: As a security precaution, you must remove the preceding parameters from \$ORACLE_HOME/ocal/misc/unison.ini immediately after all calendar servers are upgraded to 9.0.4.

If you have any problems during the upgrade, please refer to the log file \$ORACLE_HOME/ocal/upgrade/log.

Oracle Calendar Application System Upgrade

You can automatically upgrade CorporateTime/Oracle Calendar 3.x data to the new version of the Oracle Calendar application system.

See Also: ["General Issues and Workarounds"](#) on page F-22 for known issues related to upgrading the application system

This section contains the following topics:

- [Before You Start](#)
- [Upgrading the Oracle Calendar Application System](#)

Before You Start

- Check for known upgrade issues in ["General Issues and Workarounds"](#) on page F-22
- Ensure that the following files have the appropriate permissions for the new version's ORACLE_HOME user:
 - Read access for the version 3.x configuration file, webcal.ini, generally found in the /APACHE_ROOT/cgi-bin/lexacal-private/ini/ directory
 - Read and write access for the Web server's configuration file, httpd.conf (or Apache.conf), generally found in /APACHE_ROOT/conf/
- Ensure the Oracle Calendar Web server and version 3.x FastCGI processes are stopped

Upgrading the Oracle Calendar Application System

1. Install the Oracle Calendar application system in standalone mode as described in "Installation" on page F-8.
2. Set the `ORACLE_HOME` and `LIBPATH` environment variables.
3. Stop the CorporateTime and Oracle Calendar Web servers.
4. From the new installation directory `$ORACLE_HOME/ocas/upgrade/`, run the upgrade assistant with the command `ocasua.sh`, using the following optional syntax:

```
./ocasua.sh [ -appdir appdir ] [ -resdir resdir ] [ -confdir confdir ]
```

Where:

- **-appdir** is the CorporateTime binary directory, such as:
`/Apache_home/cgi-bin/owc`
- **-resdir** is the CorporateTime base directory, such as:
`/Apache_home/cgi-bin/lexacal-private`
- **-confdir** is the Web server configuration directory, such as:
`/Apache_home/conf`

A log of the process is generated in:

```
$ORACLE_HOME/ocas/upgrade/log/
```

5. Remove the FastCGI Server directives in the old version found in `httpd.conf`. They have been replaced by directives inserted in
`$ORACLE_HOME/ocas/conf/ocal.conf`
6. Some sections and keys are not migrated from `webcal.ini` into `ocas.conf` and `ocwc.conf`. You will need to migrate these manually. For more information see "Upgrades" on page F-25.

Postinstallation Configuration

This section describes procedures necessary to configure your standalone installation of Oracle Calendar.

This section contains the following topics:

- [Configuring the Web Server](#)
- [Configuring the Directory Server](#)
- [Configuring the Oracle Calendar Server](#)
- [Configuring the Oracle Calendar Application System](#)
- [Configuring Oracle Calendar E-Mail Delivery](#)

Configuring the Web Server

If you are using an Apache server or Oracle HTTP Server, add the following to the Web server's `httpd.conf` file in order to recognize the Oracle Calendar Administrator:


```
include $ORACLE_HOME/ocad/config/ocad.conf
```

(Ensure there is read access to `ocad.conf`)

In addition, make the following changes to your `httpd.conf` file so that you can use the Oracle Calendar application system:

- Include `$ORACLE_HOME/ocas/conf/ocal.conf`
- Set the system library search path to include `$ORACLE_HOME/lib32`
- Set the `ORACLE_HOME` environment variable to the directory where Oracle Calendar is installed

Keep in mind that you may have to resolve conflicting settings if you customized your original in a similar manner.

Restart the Web server after you make the changes.

Configuring the Directory Server

If, during installation, you selected a directory server to use with Oracle Calendar server, the Oracle Calendar Administrator must be granted certain access rights.

This section contains the following topics:

- [Sun ONE Directory Server](#)
- [OpenLDAP](#)
- [Syntegra Aphelion Directory Server](#)
- [Critical Path InJoin Directory Server](#)

Sun ONE Directory Server

To grant access rights to the Oracle Calendar Administrator, run the `unidsacissetup` utility with the `-w` option. For more details on this utility, see Appendix E, "Calendar Server Utilities," in the *Oracle Calendar Reference Manual*.

OpenLDAP

Use the base DN (example: "dc=acme,dc=com") and the Oracle Calendar Administrator parent DN (example: "ou=OracleCalendarAdministrator"). For example:

1. Edit the file `/usr/local/etc/openldap/slapd.conf`.
2. In the `database` section, add this information with the correct base DN and Oracle Calendar Administrator parent DN:

```
access to dn="(.*,)?dc=acme,dc=com"
by dn="(.*,)?ou=OracleCalendarAdministrator,dc=acme,dc=com" write
```

Syntegra Aphelion Directory Server

1. Use the Syntegra Aphelion Web application and sign in as a directory manager.
2. Click the "LDE" where the Oracle Calendar server is installed.
3. Click **Manage**.
4. Expand the **Access Control** folder.
5. Click **Advance Access Control**.

6. On the right pane, click **Add New Access Control Policy**.
7. In the Modify Access Control Policy text area, type the following:

```
to dn=.*BASEDN by dn=.*,ADMINDN,BASEDN write
```

where the BASEDN is the value of the [LDAP]basedn parameter and ADMINDN is the value of the [LDAP]admin parameter in the \$ORACLE_HOME/ocal/misc/unison.ini configuration file. For more details on these parameters see Appendix C, "Calendar Server Parameters," in the *Oracle Calendar Reference Manual*.

8. Click **Apply** for the change to take effect.

Critical Path InJoin Directory Server

1. If you have already closed the odsadmin session, open it again by running odsadmin from the dsa working directory.
2. Type bman to bind as the directory manager.

```
odsadmin> bman
```
3. Enter the directory manager password when prompted.
4. Run the command file to set the ACI to grant access rights to the Oracle Calendar Administrator.

```
odsadmin> run calendar_admin_aci ~
```
5. Exit the odsadmin session.

Configuring the Oracle Calendar Server

This section describes configuration changes you might need to make to the Oracle Calendar server after installing and, as the case may be, after upgrading.

This section contains the following topics:

- [Starting and Stopping the Oracle Calendar Server](#)
- [Checking Port Values](#)
- [Opening and Configuring the Oracle Calendar Administrator](#)
- [Setting up Resource Approval](#)
- [Working with LIBPATH](#)
- [Working with Security Mechanisms](#)

Starting and Stopping the Oracle Calendar Server

Start the Oracle Calendar server with the following command:

```
./unistart
```

Stop the Oracle Calendar server with the following command:

```
./unistop -y
```

Checking Port Values

The default ports used by the Oracle Calendar server are:

Port	Function
5730	Oracle Calendar Engine
5731	Synchronous network connector
5732	Directory access server
5734	Oracle Calendar server manager

If these ports are already in use, the installation will use the next available port. Please verify `unison.ini` for the values used by the Oracle Calendar server.

Opening and Configuring the Oracle Calendar Administrator

Use the Oracle Calendar Administrator to manage users, events, resources, and public agendas, as well as perform administrative tasks. By default, open it at the following URL:

`https://Web_server_host:https_port/ocad-bin/ocad.cgi?object=nodeadm`

To log on to the Oracle Calendar Administrator, enter the Oracle Calendar administrative password you chose during installation. Do not enter a user name with this password.

In some cases, you may want to run the Oracle Calendar Administrator on a non-Apache Web server. If so, you should make the following changes to your Web server:

- Set the system library search path to include `$ORACLE_HOME/lib32` and `$ORACLE_HOME>/ocad/bin`.
- Set the `ORACLE_HOME` environment variable to the directory where Oracle Calendar is installed.
- Configure a script alias, such as `ocad-bin`, to `$ORACLE_HOME/ocad/bin/ocad.cgi`. This alias must have the permissions to run `ocad.cgi`.
- Configure the `ocad-templates` script alias to `$ORACLE_HOME>/ocad/templates`. This alias *must* be named `ocad-templates`, and must have the permissions to read HTML, js, and .css files.

The Web server identity must have access to server directories as follows:

Folder	Permissions
<code>\$ORACLE_HOME/ocad/bin/</code>	Read, Write, Execute
<code>\$ORACLE_HOME/ocad/sessions/</code>	Read, Write
<code>\$ORACLE_HOME/ocad/temp/</code>	Read

The `$ORACLE_HOME/ocad/bin/ocad.cgi` program must have the permissions needed to read or write files in `$ORACLE_HOME/ocad/sessions` (this can be configured in `$ORACLE_HOME/ocad/bin/ocad.ini`).

You can find required settings for your server in `$ORACLE_HOME/ocad/config/ocad.conf`.

Setting up Resource Approval

If you intend to use the resource approval feature (on any Web server), you must set it up as follows:

1. Create or modify a resource with `NOTIFY-APPROVER` set to `TRUE` and `APPROVER-EMAIL` set to e-mail of the approver. For example, in `ocal/bin`:

```
uniuser -resource -add R=Resource
_Approval/NOTIFY-APPROVER=TRUE/APPROVER-EMAIL=approver.email@oracle.com
/psw=password -n 4313 -p test1
```

2. Assign Resource designate rights; for example, in `ocal/bin`:

```
uniaccessrights -mod -designate ALL=TRUE -grantee S=Designate/NODE-ID=4313
-grantor R=Resource_Approval -n 4313 -p test1
```

3. Also make sure that the `RESOURCE_APPROVAL` section exists in `unison.ini` (located in `ocal/misc`) with the `URL` parameter; for example:

```
[RESOURCE_APPROVAL]
url=http://server:port/ocas-bin/ocas.fcgi
```

4. If you changed the resource approval URL, restart the Oracle Calendar server.

Working with LIBPATH

Any values added to the `LIBPATH` environment variable, for example to configure security mechanisms, are cleared by the Oracle Calendar server. Instead, add the values to `OCAL_ADDITIONAL_LIBPATH`.

Working with Security Mechanisms

Some security mechanisms require that you set the `OCAL_ADDITIONAL_LIBPATH` environment variable to include the paths to their libraries.

If you are using GSSAPI/Kerberos 5, you must include the path to the five shared libraries required by `libaut_gssapi.so`.

If you are using SASL/Kerberos 4 or SASL/GSSAPI, you must include the paths to:

- The same libraries as GSSAPI/Kerberos 5
- The Kerberos and SASL shared libraries required by `libaut_sasl.so`, `libsasl.so` and the SASL plug-in.

Each path must be separated by a colon (:). For example:

```
setenv OCAL_ADDITIONAL_LIBPATH
/usr/local/kerberos/krb5/lib:/usr/local/sasl/sasl-1.5.27/lib
```

Configuring the Oracle Calendar Application System

Generally, the Oracle Calendar application system successfully starts when you start the Web server, using the default installation settings. This section explains how to check the status of the application system and make configuration changes to it, if necessary.

This section contains the following topics:

- [Checking the Status of the Oracle Calendar Application System](#)
- [Configuring the Oracle Calendar Application System](#)

Checking the Status of the Oracle Calendar Application System

To see if the application system and its components are running, open the system page at `http://server:port/ocas-bin/ocas.fcgi?sub=sys`. If a component is not running, it will not appear in the system page.

To connect to a component with an appropriate client, use the following URLs:

Component	URL
Sync Server	<code>http://host:port/ocst-bin/ocas.fcgi</code>
Web services	<code>http://host:port/ocws-bin/ocas.fcgi</code>
Oracle Calendar Web client	<code>http://host:port/ocas-bin/ocas.fcgi?sub=web</code>

Configuring the Oracle Calendar Application System

The Oracle Calendar application system and its components are controlled with the following configuration files under `$ORACLE_HOME/ocas/conf`:

ocas.conf: Oracle Calendar application system

ocws.conf: Web services

ocst.conf: Sync Server

ocwc.conf: Oracle Calendar Web client

ocal.conf: Web server FastCGI directives, included from `httpd.conf`

Consider the following configuration options, depending on your environment:

- Run several instances of `ocas.fcgi` (the number of instances depends on setup and load). You can configure this in `ocal.conf`.
- You must run one instance of `ochecklet.fcgi` per installation or host. This is also configured in `ocal.conf`.
- To redirect the Web client from a custom URL, add the following statement to `ocal.conf`:


```
<Location /calendar>
  Redirect permanent /calendar \
    http://<host>:<port>/ocas-bin/ocas.fcgi?sub=web
</Location>
```
- In order to use the Sync Server, set your `KeepAlive` parameter in `httpd.conf` or `apache.conf` to 300 seconds, or turn it off. This is done to correspond to the `idle-timeout` value of 300 seconds in `ocal.conf`.
- Make sure that the `linkdb` and `sessiondb` variables in all hosts' `ocas` files refer to the same path; for example, the same NFS mount.
- Set Authentication, Compression and Encryption (ACE) values in each component's `conf` file. AUTH Web settings for all products should be configured in the `[ACE_PLUGINS_CLIENT]` section of `ocas.conf`.
- If you experience any problems, check for error messages in:


```
$ORACLE_HOME/ocas/logs/ocas_log
```

Make sure you restart Oracle HTTP Server or Apache after any changes to the `conf` files.

Configuring Oracle Calendar E-Mail Delivery

If e-mail sent by the Oracle Calendar server appears to come from the server's name rather than the desired domain name, make the following change to `sendmail.cf` in the `/etc/mail` directory on Solaris systems, or the `/etc` directory on Linux systems.

```
# who I masquerade as (null for no masquerading) (see also $=M)
DMdomainname
```

Where `domainname` is the mail domain name from which to send e-mail.

Oracle Calendar Deinstallation

The following steps describe how to deinstall the Oracle Calendar server and application system from a host.

1. Stop the Oracle Calendar server using the `unistop` command.
2. Stop the Web server.
3. In the directory server, remove the Oracle Calendar server attributes from your Oracle Calendar users. This is done by using LDIF update commands.
4. In the directory server, remove all `ctCal` objects for the Oracle Calendar server nodes that were on this server. Use the `ldapsearch` and `ldapdelete` commands and refer to your directory server administrator's guide for proper syntax.
5. In the directory server remove all the relevant Oracle Calendar server administrative groups and ACLs from the database. Clean up your LDIF file with a manual edit LDIF or use LDIF update statements.
6. Remove Oracle Calendar components using the Oracle Universal Installer. Start the Oracle Universal Installer with the command:

```
./runInstaller
```
7. Delete your `calendar_server_path`.
8. Delete your `client_path`.

General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Calendar server and the Oracle Calendar application system. Issues are broken down into the following sections:

- [Server Issues](#)
- [Oracle Calendar Application System Issues](#)

Server Issues

This section includes the following topics:

- [Installation](#)
- [Coexistence and Upgrades](#)
- [Designates](#)
- [Various](#)

Installation

- **Blank sections in unison.ini:** Blank [LCK] and [LIC] sections will be added to the `unison.ini` file of a fresh installation of a standalone Oracle Calendar server and/or upgraded standalone server. Do not remove these sections.

Reinstallation

- When reinstalling components of Oracle Calendar, make sure to install the Oracle Calendar server component in a fresh directory. Other components can be installed or added to their existing paths.

Coexistence and Upgrades

- **Clients:** Versions of the Oracle Calendar application system that work with the Oracle Calendar server 9.0.4 include:
 - Oracle Calendar desktop client for Windows 6.0.5
 - Oracle Calendar desktop client for Mac version 5.2.3
 - Oracle Calendar desktop client for Linux x86/Solaris Operating Environment (SPARC 32-bit) version 5.0.2
 - Oracle Connector for Outlook version 3.3 and up

Note: Users of older clients should upgrade to the latest versions, available at

<http://metalink.oracle.com>

The preceding clients only support passwords of 15 characters or less. If a password longer than 15 characters is assigned by the administrator, the user will not be able to sign in.

If you only wish to support new clients, set `cs-standard_coexistence` in `unison.ini` to `false`.

- **Servers:**
 - Coexistence may cause odd error messages on an old Oracle Calendar server (5.x). This is due to the fact that the old server may not understand the features introduced by the new server.
 - There is no event Oracle Calendar coexistence between Oracle Calendar server versions. Release 1 (9.0.3) users will only see Release 1 (9.0.3) event calendars and Release 2 (9.0.4.1) users will only see Release 2 (9.0.4.1) event calendars.
- **Node networks:**
 - Node networks can only be created with version 5.3 and up of Oracle Calendar server.
 - If you need to create a node network, the `nodes.ini` and the use of `uninode` commands must be done on the most recent version (9.0.4) of the server within the network.
- **Administration utilities:**
 - Do not use 9.0.4 utilities to administer a 5.x Oracle Calendar server. The only exception to this is when moving users; the `moveuser` utility must be from the latest server version (9.0.4), even if moving a user between two nodes that are both on old server nodes (5.x).

- Do not use 5.x utilities to administer a 9.0.4 Oracle Calendar server.
- **Mapping parameters:** Mapping parameters have been added to the 9.0.4 server `unison.ini` for coexistence and upgrades. 5.x servers map `O` for `EMAIL` and `P` for `UID`. However, 9.0.4 servers do not need this mapping anymore. Parameters added to a 9.0.4 server do not affect it.

The new parameters include:

```
[ENG]
usermailmap = O
itemuidmap = P
resourceemailmap = O
usersmscprefmap = OU3
usermobiletypemap = N
usermobilemap = R
```

For version coexistence, these parameters should be added manually to the 9.0.4 `unison.ini` file. They are added automatically during an upgrade.

Designates

- **Listing designates:** Windows clients cannot list designates of remote resources
- **Creating events as a designate:** Users may get an error when creating an event while working as a Designate. However, the event will be properly created.
- **Remote Designate:** The Remote Designate feature can only be used with the Oracle Calendar Web client and the Oracle Calendar SDK

Various

- **Moving users:** Do not move users that have at some point used the Oracle Calendar Web client. Trying to move such a user may fail and cause some events to be duplicated.
- **UIDs:** A numeric UID will be created by the system for a user without an existing UID.
- **Remote users:** When a remote user is invited to meeting, the meeting owner's status is not correctly displayed to the remote user. The owner's status will be shown as `will confirm later` instead of `will attend`. This is a server issue. (2892129)

Oracle Calendar Application System Issues

This section includes the following topics:

- [Installation](#)
- [Upgrades](#)

Installation

- **No prompt for server information:** When installing the standalone package of the application system on a computer where Oracle Calendar server is already installed, you will not be prompted to enter server information during the installation. Once the application system is installed, you must open the `[connection]` section of `ocas.conf` and replace

```
mnode=,
```


with

```
mnode=host:engine_port,node
```

(2844399)

Upgrades

- **Multiple upgrades:** When the application system upgrade assistant is run more than once, multiple `include` lines may be inserted in `httpd.conf`, causing the Web server to not start properly. (#2978880). Suggested work-around: Remove the duplicated `include` lines from the `conf` file. Typically, the lines look like this:

```
include full_path_of_install_home/ocas/conf/ocal.conf
```

- **Blank lines in `ocas.conf` and `ocwc.conf`:** Blank lines in `ocas.conf` and `ocwc.conf` in your R2 installation will be removed by the upgrade assistant. To preserve them, replace them with `#` prior to running the assistant.
- **Missing keys:** The upgrade assistant only migrates the following keys. Your installation will still work, but you may need to make changes to the new parameters to get the look and feel you want. For information on editing parameters, see the *Oracle Calendar Reference Manual*.

```
[system]
connection
```

```
[servers]
(All keys migrated to "connection" section of ocas.conf. If the old
installation was a masternode, 'mnode' will be the only entry.)
```

```
[ACE_PLUGINS_CLIENT]
(All keys into ocas.conf)
```

```
[admin]
ssn_timeout
sso_user_env_key
max_login_attempts
login_fail_timeout
secure_login
cache
```

```
[ADA]
enable
hide_toggle_link
```

```
[modules]
logout
prefs
chgpwd
accrights
userlist_login
hide_eventcal
hide_global
hide_taskview
hide_managegroups
hide_suggesttime
hide_show_unconfirmed
hide_updateall
enable_designate
hide_viewpub
```

```
[file_attachment]
download_enable
upload_enable
```

```
[taskview]
quickCreateStartTime
quickCreateEndTime
showQCCompletion
```

```
[calendar_view]
default_view
default_dayview_mode
default_weekview_mode
hide_dayview_toggle
hide_weekview_toggle
pdv_notes_top_task_bottom
default_color_mgt_by
```

```
[cookies]
domain
```

```
[sms]
enable
```

```
[sched]
userlist_login (becomes same key in "modules" section of ocwc.conf)
serverlist_login (becomes same key in "modules" section of ocwc.conf).
enable_autologin (becomes same key in "modules" section of ocwc.conf).
modify_emailadd (becomes same key in "modules" section of ocwc.conf).
showicalvcal (becomes same key in "modules" section of ocwc.conf).
```

```
[ACE]
authentication (becomes 'Authentication' of ocwc.conf).
```

Oracle Collaboration Suite Client Installations

The Oracle Collaboration Suite Client CD-ROM contains the client products.

This appendix contains these topics:

- [Oracle Connector for Outlook](#)
- [Oracle Calendar Desktop Client for Windows](#)
- [Oracle Calendar Desktop Client for Linux](#)
- [Oracle Calendar Desktop Client for Macintosh](#)
- [Oracle Calendar Desktop Client for Solaris](#)
- [Oracle Calendar Sync for Palm for Windows](#)
- [Oracle Calendar Sync for Pocket PC](#)
- [Oracle Calendar Sync for Palm for Macintosh](#)
- [Oracle FileSync](#)

Oracle Connector for Outlook

This section contains these topics:

- [System Requirements for Oracle Connector for Outlook](#)
- [Preinstallation Requirements for Oracle Connector for Outlook](#)
- [Installing Oracle Connector for Outlook](#)
- [Silent Installation of Oracle Connector for Outlook](#)
- [Upgrading Microsoft Outlook](#)
- [Deinstalling Oracle Connector for Outlook](#)

System Requirements for Oracle Connector for Outlook

The following table contains the Oracle Connector for Outlook system requirements.

Table G-1 Oracle Connector for Outlook System Requirements

Requirement	Value
Operating system	<ul style="list-style-type: none"> ■ Windows NT 4.0 ■ Windows 98 ■ Windows 2000 ■ Windows XP Professional <p>Administrative privileges are required to install Oracle Connector for Outlook on Windows NT, 2000, and XP.</p>
Disk space	Free disk space equivalent to the approximate size of the user's IMAP4 mailbox
RAM	Refer to the RAM requirements of your Microsoft Outlook client.
Outlook	<ul style="list-style-type: none"> ■ Outlook 98 ■ Outlook 2000 ■ Outlook 2002 ■ Outlook 2003 (supported in Oracle Collaboration Suite Release 2 Patch Set 1 (9.0.4.2.0)) ■ Note: Native Language version or Multilingual User Interface Pack (MUI) is required for non-English version localization (see supported languages)
Calendar server	<ul style="list-style-type: none"> ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4 (required for most of the new Oracle Calendar functionality)
E-mail servers	<p>SMTP server for outgoing mail included with Oracle Collaboration Suite</p> <p>Oracle IMAP4 Server 9.0.3 and above</p> <p>Other e-mail servers whose implementations are based upon the open standards of SMTP and the IMAP4 reference implementations Cyrus and University of Washington.</p>
Conduits for PDA synchronization	<ul style="list-style-type: none"> ■ PocketMirror 2.04 or 3.0 (3.0 recommended) ■ PocketJournal ■ Desktop To Go 2.5 ■ Desktop To Go 2.509 (for Outlook 2002 only) ■ PSIWIN 2.3 or 2.31 ■ ActiveSync 3.0, 3.1, or 3.5. Note: Oracle Collaboration Suite Release 2 Patch Set 1 (9.0.4.2.0) supports ActiveSync versions up to 3.7.1 ■ HotSync Manager 4.0 (for Windows XP only)

Table G-1 (Cont.) Oracle Connector for Outlook System Requirements

Requirement	Value
Devices	<p>The following devices have been certified with Oracle Connector for Outlook. Similar devices may work but the end-user experience may vary.</p> <p>Pocket PC</p> <ul style="list-style-type: none"> ■ Compaq iPAQ Pocket PC 2002 - Model 3870 ■ Compaq iPAQ Pocket PC 2002 - Model 3970 ■ HP iPAQ Pocket PC 2003 - Model h 1945 <p>Palm</p> <ul style="list-style-type: none"> ■ Palm III (3Com) ■ Palm V Handheld <p>Blackberry 6710 - Wireless Handheld</p>

Preinstallation Requirements for Oracle Connector for Outlook

- A supported Outlook version must be installed on a supported platform
- Windows NT, 2000, and XP require you to have administrative privileges on your computer in order to install Oracle Connector for Outlook
- Outlook 98 and Outlook 2000 must be installed in Corporate/Workgroup mode. Verify the Outlook configuration by choosing **Tools > Options > Mail Services > Reconfigure Mail Support**.
- To avoid losing information, Oracle Corporation recommends that you synchronize your offline folders before upgrading

Installing Oracle Connector for Outlook

1. Exit all Windows applications before installing Oracle Connector for Outlook.
2. If you are upgrading from a previous version and want to add or change the languages installed, run `con_outlook_904x.exe` followed by the switch `/Lang`. Otherwise, just double-click the `con_outlook_904x.exe` file. Follow the on-screen installation instructions.

Note: To avoid conflict between POP3 and IMAP4 protocols, do not set up Microsoft's Internet Mail or Exchange service providers in the same profile as Oracle Connector for Outlook.

Silent Installation of Oracle Connector for Outlook

When run in silent mode, the Oracle Connector for Outlook installer consults a preset configuration file for all the information normally provided by the user through the installation dialogs. Available with Oracle Connector for Outlook is a sample file, called `ctoc.ini`. Use this file as a template, changing its parameter values to suit your installation. For more details on the parameters available, see [Table G-2](#). Any parameters for which you do not supply a value and that do not have default values are prompted for at first startup.

To install Oracle Connector for Outlook from the command line without requiring any user interaction, run the product self-extracting executable with the `-s` option, and specify the configuration file to use with the `-cfg` option.

For example, where both the installer and configuration file exist in the root directory of drive C:, and the installer file name is `con_outlook_904.exe`, perform the following:

```
C:\> con_outlook_904.exe -s -cfg ctoc.ini
```

Two optional flags can also be specified:

- `-f`

If you specify `-f` in your command line, the Oracle Connector for Outlook installer attempts to remove any older versions of the product it finds before installing the current version.

- `-1`

If you specify `-1` (the numeral 1) in your command line, only the first part of the Oracle Connector for Outlook installation runs, copying necessary files and registering Oracle Connector for Outlook as an available service provider. The second part of the installation, in which Oracle Connector for Outlook is added to a profile, is not run.

Note: After running the silent install once, subsequent silent installations that do not specify the `-f` option only perform the first part of the installation, copying necessary files and registering Oracle Connector for Outlook as an available service provider. The installer does not continue with the second part of the installation.

For more information about large-scale deployments of Oracle Connector for Outlook, contact Oracle Consulting.

Oracle Connector for Outlook Silent Installation Configuration File Parameters

The following table contains a list of available parameters for Oracle Connector for Outlook silent installation, organized alphabetically by section. Listed default values are applied when the value of the parameter in question is blank or the parameter is left out of the configuration file completely.

All lines beginning with a semicolon (;) in the configuration file are comments not read by the installer.

Table G-2 Oracle Connector for Outlook Silent Installation Configuration Parameters

Component	Parameter	Accepted Values	Default	Description
[Calendar]	AccountName	A valid calendar server user name	None	Specifies this user's calendar account name
[Calendar]	DomainID	A valid Domain ID	None	Specifies the Domain ID representing your organization. The [Calendar] UseDNS and [Calendar] HostName parameters must also be specified.
[Calendar]	HostName	A valid host name, or list of names in the format: <i>host1;host2;hostN</i> . For example: <i>scooter;kermit</i>	None	Specifies the host name or network address of the Calendar Domain Service host or hosts. The [Calendar] UseDNS and [Calendar] DomainID parameters must also be specified.
[Calendar]	NoAccount	0 (Configure a calendar server connection using the [Calendar] parameters) 1 (Skip configuring the calendar server connection and ignore any values set by other parameters in the [Calendar] section)	0	Specifies that this user has no calendar server account, and ignores any values set by other parameters in the [Calendar] section
[Calendar]	Password	The valid password for this user's calendar account	None	Specifies this user's calendar password
[Calendar]	Port	0 (use the default) A valid port	None	Specifies the port to use to connect to the calendar server specified by the [Calendar] ServerName parameter
[Calendar]	ServerName	A valid host name, followed by a comma, followed by a valid node-ID. For example: <i>kermit,1200</i>	None	Specifies the host name or network address of the calendar server, and the node-ID to which to connect, if desired
[Calendar]	UseDNS	0 or empty ("Corporate Mode") 1 (Use DNS)		Use Calendar Domain Service
[E-Mail]	AccountName	A valid user name	None	The account name of this user on the IMAP4 server

Table G-2 (Cont.) Oracle Connector for Outlook Silent Installation Configuration

Component	Parameter	Accepted Values	Default	Description
[E-Mail]	DisplayName	Any alphanumeric string	None	Sets the name to be displayed for all e-mail this user sends
[E-Mail]	EmailAddress	A valid e-mail address	None	Specifies the current user's e-mail address
[E-Mail]	Imap4ServerName	A valid host name	None	The host name or network address of the IMAP4 e-mail server
[E-Mail]	ImapNoAccount	0 (Configure an IMAP4 server connection using the other IMAP4 configuration parameters in the [E-Mail] section) 1 (Skip configuring the IMAP4 server connection and ignore any values set by other IMAP4 configuration parameters in the [E-Mail] section)		Specifies that this user has no IMAP4 account, and ignores any values set by other IMAP4 configuration parameters in the [E-Mail] section
[E-Mail]	ImapPort	A valid port	143	The port for the IMAP4 server
[E-Mail]	ImapSameAsCTime	0 (Do not use the same values set for the calendar server account name and password) 1 (Use the same values set for the calendar server account name and password)	0	Instructs the installer to use the same user name and password specified by the [Calendar] AccountName and [Calendar] Password parameters for the IMAP4 server. If this parameter is set to 1, the installer ignores any values set in the [E-Mail] AccountName and [E-Mail] Password parameters.
[E-Mail]	ImapSSL	0 (Do not use SSL) 1 (Use SSL)	0	Instructs the installer to use Secure Sockets Layer (SSL) for all communications with the IMAP4 e-mail server
[E-Mail]	Organization	Any alphanumeric string	None	Specifies the current user's organization to be included with outgoing e-mail (optional)
[E-Mail]	Password	The valid password for this user's e-mail account	None	The password for this user on the IMAP4 server

Table G-2 (Cont.) Oracle Connector for Outlook Silent Installation Configuration

Component	Parameter	Accepted Values	Default	Description
[E-Mail]	ReplyTo	A valid e-mail address	None	Specifies the destination e-mail address that mail is sent to when a user replies to mail sent by the current user (optional)
[E-Mail]	SmtAccount	A valid host name	None	Specifies the host name or network address of the SMTP e-mail server
[E-Mail]	SmtAuthentication	0 (No authentication required) 1 (User name and password required)	0	Instructs the installer that the specified SMTP e-mail server requires a user name and password
[E-Mail]	SmtNoAccount	0 (Configure an SMTP server connection using the other SMTP configuration parameters in the [E-Mail] section) 1 (Skip configuring the SMTP server connection and ignore any values set by other SMTP configuration parameters in the [E-Mail] section)	0	Specifies that this user has no SMTP account, and ignores any values set by other SMTP configuration parameters in the [E-Mail] section
[E-Mail]	SmtPassword	The valid password for the current user account	None	Specifies the password to use when connecting to the SMTP e-mail server, if the [E-Mail] SmtAuthentication parameter is set to 1
[E-Mail]	SmtPort	A valid port	25	The port for the SMTP server
[E-Mail]	SmtSameAsImap	0 (Do not use the same values set for the IMAP4 server account name and password) 1 (Use the same values set for the IMAP4 server account name and password)	0	Instructs the installer to use the same user name and password specified by the [E-Mail] AccountName and [E-Mail] Password parameters for the SMTP server. If this parameter is set to 1, the installer ignores any values set in the [E-Mail] SmtAccount and [E-Mail] SmtPassword parameters.

Table G-2 (Cont.) Oracle Connector for Outlook Silent Installation Configuration

Component	Parameter	Accepted Values	Default	Description
[E-Mail]	SmtServerName	A valid user name on the SMTP server	None	Specifies the account name to use when connecting to the SMTP e-mail server, if the [E-Mail] SMTPAuthentication parameter is set to 1
[E-Mail]	SmtSSL	0 (Do not use SSL) 1 (Use SSL)	0	Instructs the installer to use SSL for all communications with the SMTP e-mail server
[General]	CompanyName	Any alphanumeric string	None	Specifies the name of the company employing the registered user
[General]	InstallPath	A valid path name	<i>current_drive:</i> Program Files Oracle Connector_for _Outlook	Specifies the path in which to install Oracle Connector for Outlook
[General]	UserName	Any alphanumeric string	None	Specifies the name of the registered user. Also used as default values for the [Calendar] AccountName and [E-Mail] DisplayName parameters.
[Install]	ShowError	0 (Hide error messages) 1 (Show error messages)	0	Displays a button used to open a log file containing error messages encountered during the installation. If ShowOutput is 1, the button appears in the installation progress box. If ShowOutput is 0, the button appears in a separate dialog box.
[Install]	ShowOutput	0 (Hide output) 1 (Show output)	0	Displays the output of the Oracle Connector for Outlook installer as it progresses through the silent installation
[Install]	ShowSuccess	0 (Hide success message) 1 (Show success message)	0	Displays a status message when installation is completed successfully

Table G-2 (Cont.) Oracle Connector for Outlook Silent Installation Configuration

Component	Parameter	Accepted Values	Default	Description
[Install]	ShutdownOutlook	0 (Do not shut down Outlook automatically) 1 (Shut down Outlook automatically)	0	Instructs the installer to close Outlook automatically before installing Oracle Connector for Outlook, if Outlook is running. Outlook must not be running in order for the installer to function correctly.
[Languages]	(None)	Acceptable language values, such as: 1031=d 1036=fr 1041=ja 1042=ko Where the number represents the language, and the string is the same as that appended to the Oracle Connector for Outlook DLL and help files for that language.	None. Unless a value is specified, Oracle Connector for Outlook installs in English.	Sets the language used by Oracle Connector for Outlook
[MAPIProfile]	Name	Any alphanumeric string	Oracle Connector for Outlook	Specifies the profile in which to add Oracle Connector for Outlook. If the profile name specified does not already exist, the installation creates a new profile with this name and adds Oracle Connector for Outlook to that profile.
[Off-line]	Path	A valid path	A default path determined by the current platform and profile name	Specifies a location for the current user's offline storage
[Off-line]	Use	0 (Offline access disabled) 1 (Offline access enabled)	0	Instructs the installer to enable offline access and synchronization for the current user
[Settings]	DisableCfgUI	0 (Show the configuration dialog box normally) 1 (Disable the ability to create or modify profiles)	0	Hides the Oracle Connector for Outlook configuration dialog box normally available through the Windows Mail control panel, so that users cannot modify their sign-in and offline settings

Table G-2 (Cont.) Oracle Connector for Outlook Silent Installation Configuration

Component	Parameter	Accepted Values	Default	Description
[Settings]	DisablePwd	0 (Allow password saving) 1 (Disable password saving)	0	Instructs the installer to ignore passwords set for the calendar, IMAP4, and SMTP server, and requires the current user to provide an account password at each login
[Settings]	ForceReboot	0 (No reboot) 1 (Force reboot)	0	Instructs the installer to restart the operating system after the first part of the installation (copying files and installing Oracle Connector for Outlook as a service provider)
[Settings]	HideCTimePwdMenu	0 (Show the Change Password option) 1 (Hide the Change Password option)	0	Hides the Change Password option in the Tools menu, to prevent users from changing their calendar server passwords through Outlook
[Settings]	NoServerMail	0 (Enable connections to mail servers normally) 1 (Skip connections to both IMAP4 and SMTP servers) 2 (Skip connection to the IMAP4 server) 3 (Skip connection to the SMTP server)	0	Skips connecting to the IMAP4 and SMTP servers. Use this parameter if you want to use another service provider such as Microsoft's Internet E-Mail for mail instead of Oracle Connector for Outlook. If 1, 2 or 3 is specified, the corresponding server properties page in Outlook will be hidden.
[Settings]	ShowSrvIcon	0 (Do not show the unavailable servers icon) 1 (Show the unavailable servers icon)	0	Shows a small information icon in the lower right corner of the main Outlook window when a calendar or mail server is unavailable

Upgrading Microsoft Outlook

If you upgrade your Outlook installation, you must reinstall Oracle Connector for Outlook after the upgrade. See [Installing Oracle Connector for Outlook](#) for installation instructions.

Deinstalling Oracle Connector for Outlook

To remove Oracle Connector for Outlook:

1. Double-click **Add/Remove Programs** from the Control Panel.
2. Choose Oracle Connector for Outlook and click **Add/Remove**.

Oracle Calendar Desktop Client for Windows

This section contains these topics:

- [System Requirements for Oracle Calendar Desktop Client for Windows](#)
- [Installing Oracle Calendar Desktop Client for Windows](#)
- [Silent Installation of Oracle Calendar Desktop Client for Windows](#)
- [Deinstalling Oracle Calendar desktop client for Windows](#)

System Requirements for Oracle Calendar Desktop Client for Windows

The following table contains the Oracle Calendar desktop client for Windows system requirements.

Table G–3 Oracle Calendar desktop client for Windows system requirements

Requirement	Value
Operating system	<ul style="list-style-type: none"> ■ Windows 98 ■ Windows ME ■ Windows NT ■ Windows 2000 ■ Windows XP Home ■ Windows XP Professional <p>If you are installing Oracle Calendar desktop client for Windows on a Windows NT computer, you must install Microsoft Windows Service Pack 6 or later.</p> <p>Administrative privileges are required to install Oracle Calendar desktop client for Windows on Windows NT, 2000, and XP.</p>
Disk space	25 MB
RAM	20 MB minimum
Calendar server	<ul style="list-style-type: none"> ■ Oracle CorporateTime server 5.4 ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4.x

Installing Oracle Calendar Desktop Client for Windows

This section describes how to install Oracle Calendar desktop client for Windows.

1. Log in with administrative privileges if you are installing on Windows NT, 2000, or XP.
2. Run the self-extracting executable `cal_win_904x.exe` and follow the on-screen instructions.

Silent Installation of Oracle Calendar Desktop Client for Windows

Oracle Calendar desktop client for Windows 9.0.4 offers silent and customizable installations to ease large-scale deployment. The desktop client incorporates MSI installer technology to offer configurable levels of user interaction ranging from the regular interactive install to a completely silent behind-the-scenes procedure with no user feedback or prompts at all.

Performing the Silent Installation

Unzipping the self-extracting executable `cal_win_904x.exe` will extract the following: `setup.exe`, Oracle Calendar 9.0.4.msi, some CAB files, and a folder containing the `unison.ini` file. The Oracle Calendar 9.0.4.msi file is the main installer package that runs in the MSI engine. This file cannot be run directly because it depends on the InstallShield setup scripts which are available only through the `setup.exe` file. The CAB files contain the compressed data to be installed on the end user's machine. The only file left uncompressed is the template `unison.ini` file. The `setup.exe` file is the InstallShield wrapper that runs the MSI installer engine with the Oracle Calendar 9.0.4.msi file. The `setup.exe` file is also responsible for upgrading the user's machine if it does not already have the MSI installer engine.

Note that users installing Oracle Calendar must have administrator privileges on the machine. Although this is the default setting for Windows 98 and Windows ME, it may not be the case for multi-user operating systems such as Windows NT 4.0, Windows 2000 or Windows XP. Administrator privileges on the machine are required to write to the registry and install certain required files.

The installer will upgrade any previous versions of CorporateTime, OpenTime and Oracle Calendar on the user's machine. The installer will also upgrade any beta versions of Oracle Calendar desktop client for Windows 9.0.4.

To configure the level of user interaction, run the self-extracting executable `cal_win_904x.exe` file from the command line with the `/s` option. In addition, use the `/v` option to specify any information that should be passed by the InstallShield wrapper to the Windows Installer. The value of this option is a string specified inside double-quotes, which should provide a nested flag to control the level of user feedback given by the Windows Installer. Flags available include:

- `/qn` to specify a completely silent installation
- `/qB` to provide basic user feedback such as progress indicators during the installation, but prevent users from modifying any installation parameters or information. For example, users can see the progress indicator while files are being copied but not allowed to specify the destination path.

For more details on the levels of user interaction available with Windows Installer's `/q` option, see the Windows Installer documentation.

In the string value provided for the `/v` option, it is recommended to also include the `REINSTALL` and `REINSTALLMODE` parameters which instruct the installer to upgrade any Alpha or Beta versions of the software that may already be present on the system.

The basic recommended command line for a completely silent installation is therefore constructed as follows:

```
setup.exe /s /v"/qn REINSTALL=ALL REINSTALLMODE=voums "
```

Note: The `/v` option should always be the last one specified on the command line.

Customizing the Oracle Calendar Preferences File

Most calendar preferences and setup information can be specified in the client-side `unison.ini` file. When you install the application, you can provide the installer with a template `unison.ini` file preset with a variety of preferences and other information. The template `unison.ini` file is used only when no personal `unison.ini` file exists. Once such a personal file exists for any given user, subsequent client upgrades will NOT remove it or replace it. In other words, the ability to preset

`unison.ini` preferences through the client installer is only available for users who have not yet used any version of Oracle Calendar on the current machine. For those users, Oracle Calendar will simply use their old set of preferences. There are two reasons for this behavior:

- On multi-user operating systems such as Windows NT and 2000, the user upgrading the application cannot necessarily view and modify files in other users' profile folders, where the individual `unison.ini` files are stored. In other words, the installer cannot locate all the `unison.ini` files on the current machine in order to replace them with the new template.
- All user preferences not stored directly in the calendar server or specified in the template `unison.ini` file would be lost if the user's personal `unison.ini` were replaced.

Deinstalling Oracle Calendar desktop client for Windows

To remove Oracle Calendar desktop client for Windows:

1. Double-click **Add/Remove Programs** from the Control Panel.
2. Choose **Oracle Calendar 9.0.4** and click **Add/Remove**.

Oracle Calendar Desktop Client for Linux

This section covers these topics:

- [System Requirements for Oracle Calendar Desktop Client for Linux x86](#)
- [Installing Oracle Calendar Desktop Client for Linux x86](#)
- [Silent Installation of Oracle Calendar Desktop Client for Linux x86](#)
- [Deinstalling Oracle Calendar Desktop Client for Linux x86](#)

System Requirements for Oracle Calendar Desktop Client for Linux x86

The following table contains the Oracle Calendar desktop client for Linux system requirements.

Table G-4 Oracle Calendar desktop client for Linux system requirements

Requirement	Value
Operating system	<ul style="list-style-type: none"> ■ Red Hat Linux 7.x, to 9.0 ■ SuSE Linux 7.1 ■ Linux x86 with kernel 2.4.x or later
Disk space	33 MB
RAM	15 to 20 MB
Calendar server	<ul style="list-style-type: none"> ■ Oracle CorporateTime server 5.4 ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4.x

Installing Oracle Calendar Desktop Client for Linux x86

This section describes how to install Oracle Calendar desktop client for Linux.

1. Unpack the distribution archive in a temporary directory. `/tmp` is the sample directory used in the following instructions.

```
cd /tmp
gtar zxvf /tmp/cal_linux_904x.tar.gz
```

2. Change to the OracleCalendar_inst directory.

```
cd OracleCalendar_inst
```

3. To install using a full graphical interface, run `gui_install.sh`. To install using a text mode interface, run `text_install.sh`. You will be prompted for installation and shortcut directories.

Silent Installation of Oracle Calendar Desktop Client for Linux x86

To run a silent installation of Oracle Calendar desktop client for Linux, follow the steps described in ["Installing Oracle Calendar Desktop Client for Linux x86"](#) on page G-13, except run the file `silent_install.sh`. This file reads the following parameters from the `ocal_conf/silent.properties` file:

- `USER_INSTALL_DIR`: Where the application will be installed
- `USER_SHORTCUTS`: Where the shortcut used to start Oracle Calendar will be placed

Both values must be fully-qualified paths, such as `/local/OracleCalendar`. Relative paths may not be used.

Deinstalling Oracle Calendar Desktop Client for Linux x86

To deinstall Oracle Calendar desktop client for Linux, remove the `OracleCalendar` directory:

```
rm -rf /OracleCalendar
```

Oracle Calendar Desktop Client for Macintosh

This section contains these topics:

- [System Requirements for Oracle Calendar Desktop Client for Macintosh](#)
- [Installing Oracle Calendar Desktop Client for Macintosh](#)
- [Deinstalling Oracle Calendar Desktop Client for Macintosh](#)

System Requirements for Oracle Calendar Desktop Client for Macintosh

The following table contains the Oracle Calendar desktop client for Macintosh system requirements.

Table G-5 Oracle Calendar desktop client for Macintosh System Requirements

Requirement	Value
Operating system	Mac OS 9.x (with CarbonLib 1.6), Mac OS X 10.1.4 to 10.2.6. Note: Oracle Collaboration Suite Release 2 Patch Set 1 (9.0.4.2.0) supports Mac OS 9.22 to OS 10.3.
Disk space	20 MB minimum
RAM	12 MB

Table G-5 (Cont.) Oracle Calendar desktop client for Macintosh System Requirements

Requirement	Value
Calendar server	<ul style="list-style-type: none"> ■ Oracle CorporateTime server 5.4 ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4.x

Installing Oracle Calendar Desktop Client for Macintosh

Mac OS 9.x

This section describes how to install Oracle Calendar desktop client for Macintosh for Mac OS 9.x.

1. Ensure that you have administrative privileges.
2. Ensure that the `CarbonLib` file is installed in the `Extensions` folder of your active System Folder to run the installer.
3. Double-click `cal_mac_OS9_904x.hqx` and follow the on-screen instructions.

The installer extracts the application and copies the `Readme.htm` file into the destination folder you have selected. It also extracts all shared libraries to the `Extensions` folder and `Oracle Calendar Help` to the `Help` folder of your active System Folder.

If your `CarbonLib` file is prior to version 1.6, it is updated. Restart the computer for the new file version to take effect.

4. Double-click the Oracle Calendar desktop icon to start the application when installation is completed.

Mac OS X

This section describes how to install Oracle Calendar desktop client for Macintosh for Mac OS X.

1. Ensure that you have administrative privileges.
2. Double-click `cal_mac_OSX_904x.hqx` and follow the on-screen instructions.

The installer extracts the application and copies the `Readme.htm` file into a destination folder you select. It also extracts all shared libraries to the `/Library/CFMSupport/` folder and the `Oracle Calendar Help` folder to the `/Library/Documentation/Help/` folder.

3. Double-click the Oracle Calendar desktop icon to start the application when installation is complete.

Deinstalling Oracle Calendar Desktop Client for Macintosh

Mac OS 9.x

This section describes how to deinstall Oracle Calendar desktop client for Macintosh for Mac OS 9.x.

1. To remove the Oracle Calendar desktop client for Macintosh, you must delete these components:
 - Shared libraries and ACE plug-ins
 - Help

- Preferences
 - Oracle Calendar Desktop Client application
 - Oracle Calendar data (offline files)
2. To remove the shared libraries and ACE plug-ins, go to your hard disk and open the `System` folder. Open the `Extensions` folder and delete these files:
 - `OCALACipher1EncrLib`
 - `OCALLightEncrLib`
 - `OCALSimpleCompLib`
 - `OCALStdAuthLib`
 - `OCALSASLAuthLib`
 - `OCALGssapiAuthLib`
 - `Unison Library`
 3. To remove the `Help`, go to your hard disk and open the `System` folder. Open the `Help` folder, select the `Oracle Calendar Help` folder, and delete it.
 4. To remove your `Preferences`, go to your hard disk and open the `System` folder. Open the `Preferences` folder, select the `Oracle Calendar Prefs` file, and delete it.
 5. To remove the Oracle Calendar data files, go to your hard disk and open the `Applications (Macintosh OS 9)` folder. Select the `Oracle Calendar` folder and delete it.

Mac OS X

This section describes how to deinstall Oracle Calendar desktop client for Macintosh for Mac OS X.

1. To remove the Oracle Calendar desktop client for Macintosh, you must delete these components:
 - Shared libraries and ACE plug-ins
 - `Help`
 - `Preferences`
 - Oracle Calendar Desktop Client application
 - Oracle Calendar data (offline files)
2. To remove the shared libraries and ACE plug-ins, go to your hard disk and open the `Library` folder. Open the `CFMSupport` folder and delete these files:
 - `OCALACipher1EncrLib`
 - `OCALLightEncrLib`
 - `OCALSimpleCompLib`
 - `OCALStdAuthLib`
 - `OCALSASLAuthLib`
 - `OCALGssapiAuthLib`
 - `Unison Library`

3. To remove the Help, go to your hard disk and open the `Library` folder. Open the `Documentation` folder, and then open the `Help` folder. Select the `Oracle Calendar Help` folder and delete it.
4. To remove your Preferences, go to your hard disk and open the `Users` folder and go to the `User` folder that has your name on it. Open the `Library` folder, and then open the `Preferences` folder. Select the following files and delete them:
 - `com.Oracle.Oracle Calendar.plist`
 - `Oracle Calendar Prefs`
5. To remove the Oracle Calendar application, go to your hard disk and open the `Applications` folder. Select the `Oracle Calendar` folder and delete it.

Oracle Calendar Desktop Client for Solaris

This section contains these topics:

- [System Requirements for Oracle Calendar Desktop Client for Solaris Operating Environment \(SPARC 32-bit\)](#)
- [Installing Oracle Calendar Desktop Client for Solaris Operating Environment \(SPARC 32-bit\)](#)
- [Deinstalling Oracle Calendar Desktop Client for Solaris Operating Environment \(SPARC 32-bit\)](#)
- [Silent Installation of Oracle Calendar Desktop Client for Solaris Operating Environment \(SPARC 32-bit\)](#)

System Requirements for Oracle Calendar Desktop Client for Solaris Operating Environment (SPARC 32-bit)

The following table contains the Oracle Calendar desktop client for Solaris system requirements.

Table G-6 Oracle Calendar desktop client for Solaris system requirements

Requirement	Value
Operating system	Solaris 8, 9 (SPARC only) Netscape Navigator or Netscape Communicator release 4.0 or later is required to use the Oracle Calendar Desktop Client online Help. The directory that contains the Netscape executable must be set in your path.
Disk space	40 MB
RAM	20 to 25 MB
Calendar server	<ul style="list-style-type: none"> ■ Oracle CorporateTime server 5.4 ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4.x

Installing Oracle Calendar Desktop Client for Solaris Operating Environment (SPARC 32-bit)

This section describes how to install the Oracle Calendar desktop client for Solaris.

1. Untar the distribution archive into a temporary directory. `/tmp` is the sample directory used in the following commands.

```
cd /tmp
gtar zxvf /tmp/cal_sun_os_904x.tar.gz
```

2. Change to the OracleCalendar_inst directory.

```
cd OracleCalendar_inst
```

3. To install using a full graphical interface, run `gui_install.sh`. To install using a text mode interface, run `text_install.sh`. You will be prompted for installation and shortcut directories.

Deinstalling Oracle Calendar Desktop Client for Solaris Operating Environment (SPARC 32-bit)

To desinstall the Oracle Calendar desktop client for Solaris, remove the OracleCalendar directory:

```
rm -rf /OracleCalendar
```

Silent Installation of Oracle Calendar Desktop Client for Solaris Operating Environment (SPARC 32-bit)

To run a silent installation of Oracle Calendar desktop client for Solaris operating environment (SPARC 32-bit), follow the steps described in "[Installing Oracle Calendar Desktop Client for Solaris Operating Environment \(SPARC 32-bit\)](#)" on page G-17, except run the file `silent_install.sh`. This file reads the following parameters from the `ocal_conf/silent.properties` file:

- `USER_INSTALL_DIR`: Where the application will be installed
- `USER_SHORTCUTS`: Where the shortcut used to start Oracle Calendar will be placed

Both values must be fully-qualified paths, such as `/local/OracleCalendar`. Relative paths may not be used.

Oracle Calendar Sync for Palm for Windows

This section contains these topics:

- [System Requirements for Oracle Calendar Sync for Palm for Windows](#)
- [Installing Oracle Calendar Sync for Palm for Windows](#)
- [Deinstalling Oracle Calendar Sync for Palm for Windows](#)

System Requirements for Oracle Calendar Sync for Palm for Windows

The following table contains the Oracle Calendar Sync for Palm for Windows system requirements.

Table G-7 Oracle Calendar Sync for Palm for Windows system requirements

Requirement	Value
Operating system	<ul style="list-style-type: none"> ■ Windows 98 ■ Windows 2000 ■ Windows ME ■ Windows XP ■ Windows NT 4.0
Disk space	75 MB
RAM	64 MB
Calendar server	<ul style="list-style-type: none"> ■ CorporateTime server 5.4 ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4
Palm Desktop	Palm Desktop 3.1 to 4.1
Device	<ul style="list-style-type: none"> ■ Palm m100, m500, m505, III, IIIx, V, Vx, Tungsten T, Tungsten W ■ Handspring Visor

Installing Oracle Calendar Sync for Palm for Windows

This section describes how to install Oracle Calendar Sync for Palm for Windows.

If you have a previous version of Oracle Calendar Sync (CorporateSync) installed, Oracle Corporation recommends that you perform a synchronization before you install Oracle Calendar Sync for Palm for Windows.

1. Ensure HotSync is installed on your computer.
2. Run the `cal_syncpalm_win_904x.exe` setup program provided with the distribution package and follow the on-screen InstallShield instructions.
3. Choose an installation type. If you choose **Custom**, there is no difference between **This feature will be installed on local hard drive** and **This feature, and all subfeatures, will be installed on your local hard drive**. Select the conduits you want to install.
4. Enter your user information, including user name, password, calendar server, and node ID.
5. Follow the rest of the on-screen instructions to complete the installation.
6. Ensure that your device is in its cradle, then perform a synchronization. The first time you do this after installation, a full synchronization will take place.

Deinstalling Oracle Calendar Sync for Palm for Windows

To remove Oracle Calendar Sync:

1. Double-click **Add/Remove Programs** from the Control Panel.
2. Choose **Oracle Calendar Sync 9.0.4 for Palm** and click **Add/Remove**.

Oracle Calendar Sync for Pocket PC

This section contains these topics:

- [System Requirements for Oracle Calendar Sync for Pocket PC](#)
- [Installing Oracle Calendar Sync for Pocket PC](#)
- [Deinstalling Oracle Calendar Sync for Pocket PC](#)

System Requirements for Oracle Calendar Sync for Pocket PC

The following table contains the Oracle Calendar Sync for Pocket PC system requirements.

Table G-8 Oracle Calendar Sync for Pocket PC

Requirement	Value
Operating system	<ul style="list-style-type: none">■ Windows 98■ Windows 2000■ Windows ME■ Windows XP■ Windows NT 4.0
Disk space	75 MB
RAM	64 MB
Calendar server	<ul style="list-style-type: none">■ CorporateTime server 5.4■ Oracle Calendar server 5.5■ Oracle Calendar server 9.0.4
Pocket PC	Pocket PC (Windows CE 3.0) with MIPS, SH3, ARM or XScale processor
ActiveSync	Version 3.0 to 3.7, as appropriate for your device. If you are running an older version of Microsoft ActiveSync, check your manufacturer's site for updates.
Device	<ul style="list-style-type: none">■ HPC 2000■ Compaq iPAQ■ HP iPAQ H1910■ HP Jornada 500 series■ HP Jornada 700 series■ Handheld PC■ Pocket PC 2002 <p>If you are running an older version of Microsoft ActiveSync, check your manufacturer's site for updates.</p>

Installing Oracle Calendar Sync for Pocket PC

This section describes how to install Oracle Calendar Sync for Pocket PC.

If you have a previous version of Oracle Calendar Sync (CorporateSync) installed, Oracle Corporation recommends that you perform a synchronization before you install Oracle Calendar Sync for Pocket PC.

1. Ensure that ActiveSync is installed on your computer.
2. Run the `cal_syncppc_win_904x.exe` setup program provided with the distribution package and follow the on-screen InstallShield instructions.

3. Choose an installation type. If you choose **Custom**, there is no difference between **This feature will be installed on local hard drive** and **This feature, and all subfeatures, will be installed on your local hard drive**. Select the conduits you want to install.
4. Ensure that you install Oracle Calendar Sync Helper files when prompted by the application. Your device must be connected to install these files.

Note: To connect at a later time and install the files, click **Start > Programs > Oracle Calendar Sync for Pocket PC > Install Device Files**.

5. Enter your user information, including user name, password, calendar server, and node ID.
6. Follow the rest of the on-screen instructions to complete the installation.
7. Remove your device from its cradle.
8. If you are upgrading from a previous version, select **File > Delete Partnership**.
9. Return your device to the cradle. The ActiveSync Partnership Wizard starts.
10. Follow the on-screen instructions to create a new ActiveSync Partnership. Select **Oracle Calendar** as your plug-in for Calendar, Tasks and Contacts.
11. Open Microsoft ActiveSync if it does not open automatically.
12. Click **Sync** if synchronization is not automatically initiated. The first time you synchronize, a full synchronization will occur.

Deinstalling Oracle Calendar Sync for Pocket PC

To remove Oracle Calendar Sync for Pocket PC:

1. Double-click **Add/Remove Programs** from the Control Panel.
2. Choose **Oracle Calendar Sync 9.0.4 for Pocket PC** and click **Add/Remove**.

To remove Oracle Calendar Sync Helper files from your mobile device:

1. On your device, choose **Start > Settings**.
2. Under **System**, click **Remove Programs**.
3. Select **Oracle Calendar Sync Helper Files** and click **Remove**.

Oracle Calendar Sync for Palm for Macintosh

This section contains these topics:

- [System Requirements for Oracle Calendar Sync for Palm for Macintosh](#)
- [Preparing to Install Over Previous Versions](#)
- [Installing Oracle Calendar Sync for Palm for Macintosh](#)
- [Deinstalling Oracle Calendar Sync for Palm for Macintosh](#)

System Requirements for Oracle Calendar Sync for Palm for Macintosh

The following table contains the Oracle Calendar Sync for Palm for Macintosh system requirements.

Table G–9 Oracle Calendar Sync for Palm for Macintosh system requirement

Requirement	Value
Operating system	Mac OS 9 or Mac OS X 10.1.4 to 10.2.6. Note: Oracle Collaboration Suite Release 2 Patch Set 1 (9.0.4.2.0) supports Mac OS 9.22 to OS 10.3.
Disk space	15 MB. If the Oracle Calendar desktop client for Macintosh is already installed, only 5 MB of disk space is required.
RAM	8 MB (64 MB is recommended)
Calendar server	<ul style="list-style-type: none"> ■ Oracle CorporateTime Server 5.4 ■ Oracle Calendar server 5.5 ■ Oracle Calendar server 9.0.4.x
Palm	Palm Desktop version 4.0
Device	Any Palm compatible device running Palm OS 3.3 to 3.5x, Palm OS 4 or Palm OS 5

Preparing to Install Over Previous Versions

If you already have Sync software installed on your computer and you have data stored in Palm Desktop, perform a HotSync.

If you have a Beta version of Oracle Calendar Sync installed, or if you have version 2.1.4 or earlier of Oracle Corporate Sync installed, you must do the following before installing Oracle Calendar Sync for Palm for Macintosh, in order to protect your data.

1. Remove the Oracle Calendar Sync application (also known as CS Setup) from your Palm organizer.
2. Purge all items from your Date Book and To Do List. If you do not do this, duplicates of the items will be created when you perform your first HotSync after installing Oracle Calendar Sync for Palm for Macintosh. Note the following when purging data:
 - Ensure that **Save archive copy on PC** is selected.
 - To Do items that have not been marked as completed must be manually deleted.
 - To delete the majority of, or all, Date Book events, advance the date on your organizer by several years, then do your purge. For example, change your organizer's date to 2015, then purge all events **older than 1 week** to delete all events from the past up until the year 2015.

Installing Oracle Calendar Sync for Palm for Macintosh

This section describes how to install Oracle Calendar Sync for Palm for Macintosh.

1. Double-click the `cal_syncpalm_macOS9_904.hqx` (`cal_syncpalm_macOSX_904.hqx` if you are using Mac OS X) file. This creates the Oracle Calendar Sync installer.
2. Double-click **Oracle Calendar Sync Install**. The installer checks for existing Sync files and installs the program. Depending on your setup, this may take several minutes. Some error messages may be generated and saved to the install log; you can ignore these messages.

3. Copy Oracle Calendar Sync.prc from the /Applications/Palm /Add-on/ directory to the /Users/user/Documents/Palm/Users/user /Files to Install/ directory. user is the name of the relevant Mac user.

If you have recently installed Palm Desktop and the Files to Install folder does not exist, create this folder manually.

Note: The installer will move the Datebook and ToDo conduits to a folder entitled Disabled Conduits.

4. Turn on the Palm organizer and place it in its cradle.
5. Press the **HotSync** button on the front of the Palm organizer cradle. The Oracle Calendar Sync application will be installed on your Palm organizer.

Note: You may get error messages in the HotSync log saying that Oracle Calendar Sync cannot be located. Ignore these messages.

6. If the HotSync Manager is running, the installer will ask if you want to close it. Click **Yes** to exit the HotSync Manager.
7. Click the **HotSync** icon in your HotSync folder and select **HotSync Manager**.
8. From the HotSync menu, choose **Conduit Settings**. A list of synchronizable items appears. Choose how you want Oracle Calendar Events and Tasks to be synchronized by double-clicking each item. A dialog box appears with the following choices:
 - **Synchronize the files:** Synchronizes all information that exists on both your Palm organizer and in Oracle Calendar
 - **Macintosh overwrites hand-held:** Information in your Oracle Calendar Agenda overwrites Events, Tasks, or Addresses on the Palm organizer
 - **Do Nothing:** The specified Entry type is not synchronized
9. Select a user name from the top of the Conduit Settings dialog box. If there is only one user name, it is selected automatically.
10. Open Oracle Calendar Sync on your Palm organizer and enter your Oracle Calendar user name, password, server and node ID. If you do not know this information, ask your Network Administrator.

Oracle Calendar Sync is now installed but no Entry information has been synchronized.

Troubleshooting the Oracle Calendar Sync for Palm for Macintosh Installation

Occasionally, after installing Oracle Calendar Sync for Palm for Macintosh, you may have difficulty performing a HotSync. This can be due to a conflict with Palm Desktop files. To fix the problem, do the following:

1. Delete the Users folder located in your Documents Folder under /Users /your_user_name/Documents/Palm/Users.
2. Delete the com.palm.Desktop.plist file, located in the /Users /your_user_name/Library/Preferences/ directory.

3. Delete the following files located in the `/Users`
`/your_user_name/Library/Preferences/ByHost/` directory:
 - `com.palm.HS.T.S.xxxxxxxx.plist`
 - `com.palm.HS.T.PC.xxxxxxxx.plist`
 - `com.palm.HS.T.USB.xxxxxxxx.plist`
4. Start HotSync Manager. You will be prompted for a user name, provided you deleted the files and folders as described in the preceding steps.
5. Enter your user name and any other necessary HotSync information.
6. Close HotSync Manager and perform a HotSync.

Deinstalling Oracle Calendar Sync for Palm for Macintosh

This section describes how to deinstall Oracle Calendar Sync for Palm for Macintosh.

1. Remove the Oracle Calendar Events and Oracle Calendar Tasks conduits from the HotSync Conduits folder:
2. Remove the Unison Library shared library from the active (Mac OS 10.2.1) `Library\CFM Support` folder.
3. Return the contents of the Disable Conduits folder to the HotSync conduits folder.

Oracle FileSync

This section contains these topics:

- [Installing Oracle FileSync for Windows](#)
- [Deinstalling Oracle FileSync for Windows](#)

Installing Oracle FileSync for Windows

Oracle FileSync is a Windows client software application that enables users to keep files synchronized between their local machine and Oracle Files. To install Oracle FileSync, users should follow these steps:

1. Save and exit all Windows applications.
2. Log in to Oracle Files and click **Help**. On the main online help page, click the link in the Oracle FileSync section.
3. Save the install executable to your hard drive.
4. Double-click **FileSync.exe** to run the installation program.
5. Follow the instructions and accept the defaults. The application is installed in the Windows client machine in the following directory:

```
c:\Program Files\Oracle\Oracle FileSync
```

6. To start the Oracle FileSync application, select **Oracle FileSync** from the Windows Start -> Programs menu.

Deinstalling Oracle FileSync for Windows

To remove Oracle FileSync for Windows:

1. Double-click **Add/Remove Programs** from the Control Panel.

2. Select **Oracle FileSync** and click **Add/Remove**.

Glossary

Debian

A free operating system using the Linux kernel and basic operating system tools from the GNU project.

domain

Any tree or subtree within the [Domain Name System \(DNS\)](#) namespace. Domain most commonly refers to a group of computers whose host names share a common suffix, the domain name.

For Oracle Files, a domain is a logical grouping of Oracle Files [nodes](#) and HTTP nodes, an [Oracle Files Domain Controller](#), and an Oracle9i database instance that contains all Oracle Files data.

Domain Name System (DNS)

A system for naming computers and network services that is organized into a hierarchy of domains. DNS is used in TCP/IP networks to locate computers through user-friendly names. DNS resolves a friendly name into an IP address, which is understood by computers.

host name

The unique identity for each computer within a domain.

ias_admin password

The password used to administer any installation on the host where Oracle9iAS Infrastructure and Oracle Collaboration Suite are installed. This password is required for installing additional Oracle Collaboration Suite instances. If you are configuring [Oracle Internet Directory](#), the default administrative user `orcladmin`, is assigned the same password as the `ias_admin` user by default. The `orcladmin` user is an [Oracle Internet Directory super user](#).

instance name

Identifies the installation instance of Oracle9iAS Infrastructure and Oracle Collaboration Suite on a single host.

node

An Oracle Files node is a particular set of processes running on a host computer. One or more node processes can run on a host computer. An Oracle Files node is essentially the application software that comprises the product and the underlying processes, such as the Java VM (virtual machine), that support the software at runtime.

LDAP

See [Lightweight Directory Access Protocol \(LDAP\)](#).

LDIF

See [LDAP Data Interchange Format \(LDIF\)](#).

Lightweight Directory Access Protocol (LDAP)

A standard, extensible directory access protocol. It is a common language that LDAP clients and servers use to communicate. The framework of design conventions supporting industry-standard directory products, such as Oracle Internet Directory.

LDAP Data Interchange Format (LDIF)

The set of standards for formatting an input file for any of the LDAP command-line utilities.

Oracle Calendar

An Oracle Collaboration Suite application that provides calendaring, scheduling, and personal information management (PIM) capabilities through desktop clients, the Web, and any mobile device. The scalable calendar architecture allows companies to use sophisticated group calendars and resource scheduling across an entire enterprise.

Oracle Calendar Web Client

A convenient, accessible calendaring service that can be used either on its own or as a complement to any of the Oracle Calendar desktop clients. Users can work across time zones, operating systems, and languages with an interface that adapts to the needs of your organization through a user interface that you can customize. With a flexible, intuitive layout and organization, users can collaborate easily with the people around them.

Oracle Cluster Setup Wizard

The Oracle Cluster Setup Wizard performs the following tasks on all nodes:

- Installs and starts Oracle⁹ⁱ operating system dependent clusterware
- Optionally, installs and starts the OracleClusterFileSystem service and creates one or two shared file systems.
- Optionally, installs Object Link Manager and starts the Oracle Object Service on all nodes. This tool creates persistent symbolic links to logical drives. The service updates all nodes when symbolic links are modified, and is set to Automatic, so that it starts whenever you shut down and restart your computer.
- Preserves existing symbolic link information created by previous invocations of Oracle Object Link Manager
- Installs other disk management tools on all nodes
- Adds a node to an existing cluster

Oracle Collaboration Suite Web Client

Oracle Collaboration Suite provides an integrated Web client for browser-enabled computers, using the underlying Oracle⁹ⁱAS Infrastructure to provide a secure, single sign-on environment for accessing messages (e-mail, voice mail, and fax), calendar and directory information, and content stored in [Oracle Files](#), a file server designed for large-scale collaboration.

Oracle Context

The root of a directory subtree with a relative distinguished name of `cn=OracleContext`, under which all Oracle software information is kept. There may be one (or more than one) Oracle Context in a directory. An Oracle Context can be associated with a directory naming context.

The Oracle Context can contain the following Oracle entries:

- Connect identifiers for use with Oracle Net Services directory naming to make database connections
- Enterprise user security for use with Oracle Advanced Security

Oracle Calendar Sync

Synchronize your **Oracle Calendar** meetings, tasks, and address book with the entries on your handheld device. With Oracle Calendar Sync, you can take your calendar everywhere you go, make any changes you want on your device, then synchronize with the latest information about the Oracle Calendar server. Available for Palm (Windows and Macintosh) and Pocket PC devices (Windows only).

Oracle Calendar desktop client

With the **Oracle Calendar** desktop client, users can create and manage meetings, notes, events, and tasks, either on their own behalf or for other users. They can easily compare schedules or verify the availability of other users by means of a convenient combined Group View, and they can check scheduling conflicts before creating meetings. Users can keep track of their contacts with an online Address Book and classify them according to categories that you can configure. The Oracle Calendar desktop client is available for Windows, Macintosh, and Motif.

Oracle Email

A single message store used for voice mail, e-mail, and fax messages that provides storage, management, and access to all types of information. The message store provides delivery, telephone processing, wireless notification, browser-based clients (both Web and wireless), and administration utilities. Oracle Email provides access to all message types using any access method. Voice mail, e-mail, fax, and any other mail type are available to users through their choice of access channel and device.

Oracle Enterprise Manager Console

The client interface to Oracle Enterprise Manager, which provides a wide view of your Oracle environment. Use Oracle Enterprise Manager Console to automatically discover and manage Oracle databases, application servers, and Oracle applications across your entire network. The Console and its related tools are installed as part of the Oracle9iAS Infrastructure installation.

Oracle Enterprise Manager Web Site

A Web site providing management tools designed specifically for Oracle Collaboration Suite. You can use this Web site to monitor and configure the components of Oracle9iAS Infrastructure and Oracle Collaboration Suite. You can deploy applications, manage security, and create and manage Oracle Collaboration Suite clusters. The Oracle Enterprise Manager Web Site is installed on every host as part of the Oracle9iAS Infrastructure installation.

Oracle Files

A content management application that supports user collaboration and file sharing through a consolidated, scalable, and reliable file server. Oracle Files provides a

sophisticated, Web-based user interface and industry standard protocol support that enables users to easily share files of any kind with others in a workspace or across an enterprise. Self-service management features allow users to create Workspaces to secure, author, and publish content using preferred productivity tools and network protocol servers. Oracle Files can manage files systems for both data centers and users.

Oracle Files Domain Controller

A process used to control the **nodes** that make up a **domain**.

Oracle FileSync

Oracle FileSync synchronizes all file changes between a local computer and **Oracle Files** and replaces older files with newer versions so that the content in both locations matches.

Oracle HTTP Server

Oracle HTTP Server, which is built on Apache Web server technology, supports Oracle9iAS Infrastructure and offers scalability, stability, speed, and extensibility. It also supports Java Servlets, Java Server Pages, Perl, PL/SQL, and CGI applications.

Oracle Internet Directory

An implementation of Lightweight Directory Access Protocol (LDAP), version 3. It enables sharing information about dispersed users and network resources.

Oracle Internet Directory super user

A special directory administrator who must be a member of the `IASAdmins` group and who typically has full access to directory information. The default user name of the super user is `orcladmin`; the default password is `welcome`. Oracle Corporation recommends that you change the password immediately. This user name is also a member of the `IASAdmins` group by default. If the Oracle Internet Directory administrator does not want to give out the `orcladmin` password, then the administrator can create a different username and password for a member of the `IASAdmins` group.

Oracle Management Server

Processes system management tasks and administers the distribution of these tasks across the network using the **Oracle Enterprise Manager Console**. The Console and its three-tier architecture can be used with the **Oracle Enterprise Manager Web Site** to manage your entire Oracle environment.

Oracle Connector for Outlook

Oracle Connector for Outlook provides e-mail and real-time calendaring through the familiar, integrated interface of Microsoft Outlook. With access to information both online and offline, full-featured mail functionality, and PDA synchronization, Oracle Connector for Outlook takes advantage of all of Microsoft Outlook's most popular features. In addition, users benefit from enhanced calendaring capabilities through real-time access to information and up-to-date free/busy time lookups with **Oracle Calendar**.

Oracle Ultra Search

Oracle Ultra Search provides uniform search-and-locate capabilities over multiple repositories: Oracle databases, other ODBC compliant databases, IMAP mail servers, HTML documents served up by a Web server, files on disk, and more. It is built on the Oracle database server and Oracle Text technology and uses a crawler to index documents. The documents stay in their own repositories, and the crawled

information is used to build an index that stays within your firewall in a designated Oracle database. Oracle Ultra Search also provides APIs for building content management solutions.

Oracle Voicemail & Fax

A reliable, highly scalable voice mail and fax system that provides centralized and secure message storage and retrieval for voice mails and faxes. Using the highly scalable and reliable [Oracle Email](#) message store as a foundation, Oracle Voicemail & Fax provides telephone processing, delivery, browser-based clients, and administration utilities.

Oracle Web Conferencing

Oracle Web Conferencing brings real-time online collaboration to any enterprise, enabling customers, employees, teams, and partners to meet online within the context provided by the content, commerce, and comprehensive business flows of e-business. It consists of client and server applications that let you create and participate in online conferences. Oracle Web Conferencing features multiple ways to collaborate in conferences, including desktop sharing, whiteboarding, chat, polling, and cobrowsing.

Oracle9iAS Wireless

A portal service for delivering information and applications to mobile devices. Using Oracle9iAS Wireless, you can create custom portal sites that use different kinds of content, including Web pages, custom Java applications, and XML-based applications. Oracle9iAS Wireless sites make this diverse information accessible to mobile devices without you having to rewrite the content for each target device platform.

Oracle9iAS Containers for J2EE

A complete set of Java 2 Enterprise Edition (J2EE) containers, provided by Oracle9iAS Infrastructure and written entirely in Java, that execute on the Java Virtual Machine (JVM) of the standard Java Development Kit (JDK). You can run Oracle9iAS Containers for J2EE (OC4J) on the standard JDK that exists on your operating system.

Oracle9iAS Metadata Repository

A preseeded database containing metadata needed to run Oracle Collaboration Suite instances. It can also store [Oracle Internet Directory](#) and [Oracle9iAS Single Sign-On](#) information.

Oracle9iAS Portal

Oracle9iAS Portal is a complete solution for building, deploying, and monitoring Web database applications and content-driven Web sites. Oracle9iAS Portal enables you to create and view database objects through an easy-to-use, HTML-based interface, and provides tools for creating HTML-based interfaces. It also enables you to resolve performance problems using performance tracking facilities, and enables you to manage database security through its interface.

Oracle9iAS Single Sign-On

An enterprise-wide user authentication process enabling access to multiple accounts and Oracle Collaboration Suite applications.

Oracle9iAS Web Cache

A server accelerator caching service that improves the performance, scalability, and availability of frequently used e-business Web sites that run on Oracle9iAS Infrastructure and Oracle databases. By storing frequently accessed URLs in virtual memory, Oracle9iAS Web Cache eliminates the need to repeatedly process requests for

those URLs on the Web server, and it caches both static and dynamically-generated HTTP content from one or more Web applications.

port

The number used to route transmitted data to and from a particular program.

schema

A collection of database objects, including logical structures such as tables, views, sequences, stored procedures, synonyms, indexes, clusters, and database links. A schema has the name of the user who controls it.

Subscriber

In Oracle Files, a Subscriber is an organizational entity where users collaborate. An Oracle Files subscriber maps to a subscriber on the Oracle Internet Directory LDAP server. Users on the Oracle Internet Directory server are provisioned in Oracle Files.

Each Subscriber has its own Subscriber Administrator. The Subscriber Administrator, an enhanced user, is responsible for the management of quota, the specification of Subscriber settings, the administration of users, the restoration of files, folders, and workspaces, and the administration of categories.

The Subscriber is managed by the Site Administrator. The Site Administrator creates, modifies, and deletes Subscribers.

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