Oracle® Voicemail & Fax

Administrator's Guide

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Preface

The Oracle Voicemail & Fax Administrator's Guide is intended for anyone planning, configuring, managing, or monitoring Oracle Voicemail & Fax. It provides an introduction to the components and concepts of Oracle Voicemail & Fax and describes the planning, configuring, and management tasks you will perform.

This preface contains these topics:

- Audience
- Organization
- Related Documentation
- Conventions
- Documentation Accessibility

Audience

The Oracle Voicemail & Fax Administrator's Guide is intended for anyone planning, configuring, managing, or monitoring Oracle Voicemail & Fax. It provides an introduction to the components and concepts of Oracle Voicemail & Fax and describes the planning, configuring, and management tasks you will perform.

Organization

This book contains the following chapters:

Chapter 1, "Introduction"

This chapter contains an overview of the Oracle Voicemail & Fax system and describes its major features.

Chapter 2, "Getting Started"

This chapter contains information on the administration tools and explains how to configure, start up, shut down, and refresh the Oracle Voicemail & Fax system .

Chapter 3, "Administration and Provisioning"

This chapter contains information on administering Oracle Voicemail & Fax.

Chapter 4, "Oracle Voicemail & Fax Processes"

This chapter contains information on the different servers and processes of the Oracle Voicemail & Fax system.

Chapter 5, "Error Messages"

This chapter contains information on Oracle Voicemail & Fax error messages.

Appendix A, "Oracle Voicemail & Fax Access Control Lists"

This chapter contains information on the Oracle Voicemail & Fax access control lists.

Related Documentation

Oracle Voicemail & Fax documentation is available in HTML and PDF.

The following documents are available on the Oracle Collaboration Suite documentation library:

- *Oracle Collaboration Suite Release Notes*

- *Oracle Collaboration Suite Administrator's Guide*

- *Oracle Collaboration Suite User's Guide*

- *Oracle Voicemail & Fax Release Notes*

- *Oracle Email Release Notes*

- *Oracle Email Administrator's Guide*

- *Oracle Email Application Developer's Guide*

- *Oracle Email JAVA API Documentation*

For more information, see these Oracle resources:

- *Oracle Enterprise Manager Administrator's Guide*

- *Oracle9i Database Administrator's Guide*

- *Oracle9i Application Server Database Administrator's Guide*

- *Oracle9i SQL Reference*

- *Oracle Net Services Administrator's Guide*

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`http://www.oraclebookshop.com/`
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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/docs/index.htm
```

To access the database documentation search engine directly, please visit

```
http://tahiti.oracle.com
```

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```

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 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.

Table 0–1   Conventions in Text

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**.
Italics	Italic typeface indicates book titles or emphasis.	*Oracle9i Database Concepts*
		Ensure that the recovery catalog and target database do *not* reside on the same disk.

Table 0–1   Conventions in Text

Convention	Meaning	Example
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 executables, filenames, directory names, and sample user-supplied elements. Such elements include computer and database names, net service names, and connect identifiers, as well as user-supplied database objects and structures, column names, packages and classes, usernames and roles, program units, and parameter values. **Note:** Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter sqlplus to open 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.
lowercase italic monospace (fixed-width) font	Lowercase italic monospace font represents placeholders or variables.	You can specify the *parallel_clause*. Run U*old_release*.SQL where *old_release* refers to the release you installed prior to upgrading.

Table 0–1 Conventions in Text

Convention	Meaning	Example
`lowercase monospace (fixed-width) font`	Lowercase monospace typeface indicates executables, filenames, directory names, and sample user-supplied elements. Such elements include computer and database names, net service names, and connect identifiers, as well as user-supplied database objects and structures, column names, packages and classes, usernames and roles, program units, and parameter values. **Note:** Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter `sqlplus` to open 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.
`lowercase italic monospace (fixed-width) font`	Lowercase italic monospace font represents placeholders or variables.	You can specify the `parallel_clause`. Run `Uold_release.SQL` where `old_release` 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.

Table 0–2 Conventions in Code Examples

Convention	Meaning	Example
`[ ]`	Brackets enclose one or more optional items. Do not enter the brackets.	`DECIMAL (digits [ , precision ])`

Table 0–2   Conventions in Code Examples

Convention	Meaning	Example
{ }	Braces enclose two or more items, one of which is required. Do not enter the braces.	{ENABLE | DISABLE}
|	A vertical bar represents a choice of two or more options within brackets or braces. Enter one of the options. Do not enter the vertical bar.	{ENABLE | DISABLE} [COMPRESS | NOCOMPRESS]
...	Horizontal ellipsis points indicate either: ■ That we have omitted parts of the code that are not directly related to the example ■ That you can repeat a portion of the code	CREATE TABLE ... AS *subquery*; SELECT *col1*, *col2*, ... , *coln* FROM employees;
. . .	Vertical ellipsis points indicate that we have omitted several lines of code not directly related to the example.	SQL> SELECT NAME FROM V$DATAFILE; NAME -------------------------- ------- /fsl/dbs/tbs_01.dbf /fsl/dbs/tbs_02.dbf . . . /fsl/dbs/tbs_09.dbf 9 rows selected.
Other notation	You must enter symbols other than brackets, braces, vertical bars, and ellipsis points as shown.	acctbal NUMBER(11,2); acct CONSTANT NUMBER(4) := 3;
Italics	Italicized text indicates placeholders or variables for which you must supply particular values.	CONNECT SYSTEM/*system_* *password* DB_NAME = *database_name*

Table 0–2   Conventions in Code Examples

Convention	Meaning	Example

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. However, because these terms are not case sensitive, you can enter them in lowercase.	`SELECT last_name, employee_id`
		`FROM employees;`
		`SELECT * FROM USER_TABLES;`
		`DROP TABLE hr.employees;`

lowercase	Lowercase typeface indicates programmatic elements that you supply. For example, lowercase indicates 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;`

Convention	**Meaning**	**Example**
[ ]	Brackets enclose one or more optional items. Do not enter the brackets.	`DECIMAL (digits [ , precision ])`
{ }	Braces enclose two or more items, one of which is required. Do not enter the braces.	`{ENABLE	DISABLE}`
|	A vertical bar represents a choice of two or more options within brackets or braces. Enter one of the options. Do not enter the vertical bar.	`{ENABLE	DISABLE}` `[COMPRESS	NOCOMPRESS]`

...	Horizontal ellipsis points indicate either:
	
	■ That we have omitted parts of the code that are not directly related to the example
	
	■ That you can repeat a portion of the code
		`CREATE TABLE ... AS subquery;`
		
		`SELECT col1, col2, ... , coln`
		`FROM employees;`

Table 0–2   Conventions in Code Examples

Convention	Meaning	Example
. . .	Vertical ellipsis points indicate that we have omitted several lines of code not directly related to the example.	```SQL> SELECT NAME FROM V$DATAFILE; NAME --------------------------------- /fsl/dbs/tbs_01.dbf /fsl/dbs/tbs_02.dbf . . . /fsl/dbs/tbs_09.dbf 9 rows selected.```
Other notation	You must enter symbols other than brackets, braces, vertical bars, and ellipsis points as shown.	```acctbal NUMBER(11,2); acct CONSTANT NUMBER(4) := 3;```
Italics	Italicized text indicates placeholders or variables for which you must supply particular values.	```CONNECT SYSTEM/system_ password DB_NAME = database_name```
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. However, because these terms are not case sensitive, you can enter them in lowercase.	```SELECT last_name, employee_id FROM employees; SELECT * FROM USER_TABLES; DROP TABLE hr.employees;```
lowercase	Lowercase typeface indicates programmatic elements that you supply. For example, lowercase indicates 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;```
Convention	**Meaning**	**Example**

Table 0–2 Conventions in Code Examples

Convention	Meaning	Example
[ ]	Brackets enclose one or more optional items. Do not enter the brackets.	`DECIMAL (digits [ , precision ])`
{ }	Braces enclose two or more items, one of which is required. Do not enter the braces.	`{ENABLE | DISABLE}`
|	A vertical bar represents a choice of two or more options within brackets or braces. Enter one of the options. Do not enter the vertical bar.	`{ENABLE | DISABLE}` `[COMPRESS | NOCOMPRESS]`

...	Horizontal ellipsis points indicate either:
	
	■ That we have omitted parts of the code that are not directly related to the example
	
	■ That you can repeat a portion of the code
		`CREATE TABLE ... AS subquery;`
		
		`SELECT col1, col2, ... , coln`
		`FROM employees;`

.
.
.
	Vertical ellipsis points indicate that we have omitted several lines of code not directly related to the example.	`SQL> SELECT NAME FROM`
		`V$DATAFILE;`
		`NAME`
		`---------------------------`
		`-------`
		`/fsl/dbs/tbs_01.dbf`
		`/fs1/dbs/tbs_02.dbf`
		`.`
		`.`
		`.`
		`/fsl/dbs/tbs_09.dbf`
		`9 rows selected.`

Other notation	You must enter symbols other than brackets, braces, vertical bars, and ellipsis points as shown.	`   acctbal NUMBER(11,2);`
		`   acct    CONSTANT`
		`   NUMBER(4) := 3;`

Italics	Italicized text indicates placeholders or variables for which you must supply particular values.	`CONNECT SYSTEM/system_`
		`password`
		`DB_NAME = database_name`

Table 0–2   Conventions in Code Examples

Convention	Meaning	Example
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. However, because these terms are not case sensitive, you can enter them in lowercase.	```SELECT last_name, employee_id FROM employees; SELECT * FROM USER_TABLES; DROP TABLE hr.employees;```
lowercase	Lowercase typeface indicates programmatic elements that you supply. For example, lowercase indicates 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;```

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JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

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1

Introduction

This chapter provides an overview of the Oracle Voicemail & Fax system and describes its major features.

This chapter contains the following topics:

- Oracle Voicemail & Fax Overview
- Oracle Voicemail & Fax Features

Oracle Voicemail & Fax Overview

Oracle Voice Mail and Fax is a reliable, highly scalable voice mail and fax system, that provides centralized and secure message storage and retrieval for voice mails and faxes.

Oracle Voicemail & Fax uses the Oracle Email message store for voice mail messages, taking advantage of the Oracle core competencies in providing access to, storing and managing all types of information. Oracle Voicemail & Fax delivers the full power of the Oracle 9*i* multithreaded database to provide parallel processing, high availability, and rapid response time for thousands of simultaneous users. 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 Voicemail & Fax Features

The main features of Oracle Voicemail & Fax consist the following:

- Voice
- Fax
- GUI Client Access
- Standards Based Applications
- Administration

Voice

Oracle Voicemail & Fax provides a basic DTMF voice mail interface with the ability to change user preferences through the telephone interface. Because Oracle Voicemail & Fax is a single store solution, actions taken on a message or account preferences through the voice channel are visible through all channels.

Fax

Oracle Voicemail & Fax provides inbound facsimile capabilities. Faxes sent to a user's phone number are delivered directly into the user's inbox, where they are available for viewing as message attachments. Faxs are stored as MIME compliant messages that can be printed or forwarded to any e-mail address using standards based clients or the Web clients.

GUI Client Access

Oracle Voicemail & Fax provides access to voice mail through multiple channels including the phone, IMAP4 or POP3 standards based clients, and through the Web. Because messages are stored in industry standard formats (`.wav` for voice mail and `.tif` for fax), they do not require a special player. This enables users to access messages from any computer system and the ability to forward these messages to anyone with access to e-mail.

Standards Based Applications

Oracle Voicemail & Fax telephone applications are built on the Enterprise Computer Telephony Forum (ECTF) standards. These standards, collectively known as CT Server, define the infrastructure needed to build and support platform-independent computer telephony (CT) applications and enable Oracle Voicemail & Fax applications to easily integrate with a variety of enterprise and carrier class switches.

Administration

Oracle Voicemail & Fax simplifies administration and management by integrating with Oracle Enterprise Manager, enabling consolidated, Web-based management of the total Oracle environment as well as integration into existing system monitoring infrastructures. Oracle Voicemail & Fax also supports multiple domains with delegated administration on the same system, enabling hosting.

2

Getting Started

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 Services
- Postinstallation Tasks

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 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 CT server and bring it up to level 5 before installation.

Installation Requirements

Oracle Voicemail & Fax must be installed on a server running Microsoft Windows 2000. Oracle Email components (middle tier protocol servers and database message stores) can be installed on servers running any supported operating system (UNIX, Linux, or Windows).

To install Oracle Voicemail & Fax, Release 9.0.3, you must have the following installed:

- Oracle9*i* Application Server can be installed on a machine other than that where Oracle Voicemail & Fax is installed.

- The system that Oracle Voicemail & Fax is installed on must have Oracle9i (9.0.1.1) NT with the 9.0.1.3.1 patch set installed in order for the encryption to work properly.

- Oracle Email can be installed on a machine other than that where Oracle Voicemail & Fax is installed.

- Windows 2000 Resource Kit can be installed on a machine other than that where Oracle Voicemail & Fax is installed.

- CT Media Server, Version 2.1 SW Dev Kit for Windows 2000

- IT Media 1.0

- Java Runtime Environment 1.3.1

- Oracle9*i* Client 9.0.1.3

Installing Oracle Voicemail & Fax Telephony Services

Once Oracle Voicemail & Fax is installed, the configuration tool does the following:

- Prompts are added to the CTMedia Container

- The `sc_vsto.cfg` file is created to configure Oracle Voicemail & Fax Conatiner

- The `rmid`, `rmiregistry`, and `UMProcessMgrService` processes are installed

To install Oracle Voicemail & Fax on Windows 2000, do the following:

1. Insert disc into the CD-ROM drive. The Oracle Universal Installer automatically starts and displays the Welcome screen.

2. Use **Browse...** to locate the file in the `\Disk1\stage` directory on the disc.

3. In the **Destination...** section of the File Locations screen, enter the name of an Oracle home (or select an existing Oracle home from the drop-down list) in the **Name:** field.

4. Enter the path to the Oracle home in the **Path** field.

5. You can also use **Browse...** to locate the Oracle home path.

6. Click **Next** to display the Database Connection Parameters screen.

7. Enter the database password in the **DB Password UM** field.

> **Note:** Database user name and password should have the same values for every mail store.

8. Click **Next** to display the OID Connection Parameters screen.

9. Enter the host name for Oracle Internet Directory in the **OID Host Name** field.

10. Enter the port number for Oracle Internet Directory in the **OID Port** field.

11. Click **Next** to display the Mail Host Locations screen.

12. Enter the mail hosts (use the full machine name, such as `mail1.acme.com`), ports, and service names to be supported in the **Mail Hosts** field.

    Use the following format for entering the mail hosts information:

    `full_machine_name:port:service_name`

13. Click **Next** to display the IT Media Location screen.

14. Specify the location of the IT Media `jar` files in the **Directory** field.

    Use **Browse...** to locate the `jar` files.

15. Click **Next** to display the Summary screen.

16. Click **Install** to display the Install screen.

    A progress bar displays. Upon successful installation, the End of Installation screen displays.

17. Click **Exit** to quit Oracle Universal Installer.

Postinstallation Tasks

There are several tasks you must perform after installing Oracle Voicemail & Fax. These tasks include creating and changing profiles on the CT Media server, and moving and using the Oracle Voicemail & Fax Infrastructure Configuration Tool to configure middle tier components.

This section includes the following topics:

- Creating and Changing Profiles on the CT Media Server
- Configuring Middle Tier and Infrastructure Components

Creating and Changing Profiles on the CT Media Server

Run the `ct_admin.exe` file located in the `\%ORACLE_HOME%\um \profile` directory.

When you run `ct_admin.exe`, an Oracle Voicemail & Fax Media Services Profile is created on the CT Media server. The executable also makes changes to `SCR_ AppProfile`, `SCR_ASIMap`, and `SCR_RoutingRules`.

Configuring Middle Tier and Infrastructure Components

Use the Oracle Voicemail & Fax Infrastructure Configuration Tool on the middle tier node where the Oracle Voicemail & Fax administration component is installed to configure middle tier and infrastructure components, including Oracle Internet Directory, Oracle Voicemail & Fax Advanced Queues (AQs), and Oracle Voicemail & Fax Enterprise Manager Daemon (EMD).

Starting the Oracle Voicemail & Fax Infrastructure Configuration Tool

1. Start the Oracle Voicemail & Fax Infrastructure Configuration Tool as follows:

```
$ORACLE_HOME/um/uminfra/uminfra_install.sh
```

The Available Products screen displays.

Configuring Oracle Internet Directory

This procedure creates schema for Oracle Voicemail & Fax prompts and menus and are loaded into Oracle Internet Directory. This part of the installation should only be run.

This procedure requires information about the database and CT Media.

Perform the following steps to configure Oracle Internet Directory:

1. Select **Oracle Internet Directory Configuration** from the Available Products list.

2. Click **Next** to display the Oracle Internet Directory Configuration screen.

3. Select one of the following:

   - CT Server Processes

     If selecting CT Server Processes, perform steps 4 - 9.

   - Middle Tier Processes

     If selecting Middle Tier Processes and System Infrastructure, perform steps 5, 7 - 9.

     > **Note:** For a fresh installation, each component must be configured once.

4. Enter the following database information:

   - **Middle Tier Machine Host Name:** Host name of the machine on which Oracle9*i* Application Server middle tier components are installed

   - **Mail Store Service Name:** Service name of the mail store database

   - **Mail Store Host Name:** Host name of the machine on which the mail store database resides

   - **AQ Connect String:** Connect string to the Advanced Queues database

5. Click **Next** to display the CT Media Parameters screen.

6. Enter the following CT Media information:

- ■ **CT Media Host Name:** Host name of machine on which CT Media is installed

- ■ **CT Media Port:** Port number on which CT Media is listening

- ■ **CT Server Oracle Home Directory:** Top level directory path to Oracle Voicemail & Fax home on Windows 2000

- ■ **Windows Directory:** Top level directory path to Windows 2000 installation (typically `C:\winnt`)

- ■ **Resource Kit Directory:** Top level directory path to Windows 2000 (typically `C:\PROGRA~1\RESOUR~1`)

- ■ **CT Media Home Directory:** Top level directory path to CT Media installation

- ■ **Java Home Directory:** Top level directory path to Java Development Kit installation

7. Click **Next** to display the Summary screen.

8. Click **Install**.

   A progress bar displays. Upon successful installation, the End of Installation screen displays.

9. Click **Next Install** to display the Available Products screen.

   > **Note:** Reboot the machine upon which Oracle Voicemail & Fax is installed.

Configuring Oracle Voicemail & Fax Advanced Queues

This procedure installs the message waiting indicator (MWI) Advanced Queue (AQ) on a particular database.

> **Note:** Ensure that `tnsnames.ora` on the middle tier has the network connection information for this database.

Because the MWI AQ must be installed on every mail store database, if you have multiple mail store databases, this part of the installation must be run separately for each. AQ are installed on a machine that the user specifies each time this component is run.

To configure Oracle Voicemail & Fax AQ, do the following:

1. Select **Oracle Voicemail & Fax AQ Configuration** from the Available Products list.

2. Click **Next** to display the Oracle Voicemail & Fax AQ screen.

3. Click **Next** to display the Oracle Voicemail & Fax Mail Store Installation screen and enter the following information:

   - **Connect String:** Connect string to the mail store database

   - **System Password:** Password to the mail store database

   - **es_mail Password:** Password for the `es_mail` account on the mail store database

4. Click **Next** to display the Choose Password for the Database User UM.

5. Enter a password for the Database User UM.

6. Click **Next** to display the Summary screen.

7. Click **Install**.

   A progress bar displays. Upon successful installation, the End of Installation screen displays.

8. Click **Next Install** to display the Available Products screen.

Configuring Oracle Voicemail & Fax Enterprise Manager Daemon

The Oracle Voicemail & Fax Enterprise Manager Daemon (EMD) allows you to centrally manage remote installations.

This procedure installs the voice mail portion of EMD on the Oracle9*i*AS middle tier.

Additonally, Oracle Voicemail & Fax targets are loaded into the `targets.xml` and `consoleConfig.xml` files.

To configure the Oracle Voicemail & Fax EMD, do the following:

1. Select **Oracle Voicemail & Fax EMD Configuration** from the Available Products list.

2. Click Next to display the Oracle Voicemail & Fax Configuration Selection screen.

3. Select one of the following:

- CT Server

  If selecting CT Server, go to step 4.

- Middle Tier Process

  If selecting CT Server, go to step 5.

> **Note:** For a fresh installation, each component must be configured once.

4. Click **Next** to display the Oracle Voicemail & Fax EMD Configuration screen and enter the following information:

   - **CT Media Host Name:** Host name of machine on which CT Media is installed

5. Click **Next** to display the Summary screen.

6. Click **Install**.

   A progress bar displays. Upon successful installation, the End of Installation screen displays.

7. Click **Exit** to quit Oracle Universal Installer.

> **Note:** Restart EMD and OPMN processes.

Configuring the Simplified Message Desk Interface

The Simplified Message Desk Interface (SMDI) gets call detail information, and activates and deactivates the MWI.

> **See Also:** Oracle Voicemail & Fax README located on the CT Server `%ORACLE_HOME\SMDI\CTSERVER\README.TXT` for information about configuring SMDI

3

Administration and Provisioning

This chapter discuses how to administer Oracle Voicemail & Fax.

This chapter contains the following topic:

- Managing Voice Mail and Fax Users
- Adding Voice Mail and Fax Users
- Modifying Voice Mail and Fax Users Parameters
- Voice Mail and Fax Parameters
- Removing Voice Mail and Fax Users

Managing Voice Mail and Fax Users

Using the Thin Client, administrators can perform user management tasks, such as add, remove, and modify voice mail and fax users.

Under the Overview tab, you can view what components are installed on the different middle tier hosts. To administer these components, click on the host links and you will be redirected to the Oracle Enterprise Manager.

To perform administration tasks for Oracle Voicemail & Fax, administrators must navigate to the following URL:

```
http://<machine name>:<port>/um/traffic_cop
```

Adding Voice Mail and Fax Users

> **Note:** A base user must exist in Oracle Internet Directory before they can be added as a voice mail and fax user. If a base user does not exist, a message displays with a link directing you the Oracle Internet Directory Delegated Administration Service page.

Perform the following steps to add voice mail or fax users:

1. Using the Thin Client, navigate to the Administration page.

2. Select **User** > **Voice/Fax User Management** > **Add User**.

3. Select the installation.

4. Select the domain and click **Get Mail Users**.

5. Select the user.

6. Click **Enable Voice/Fax**.

7. Enter the following information in the corresponding fields:

   - Fax In Allowed

   - Phone Access Allowed

   - Web Access Allowed

   - Telephone Number

   - VPIM Mail

■ VPIM Text Name

See Also: "Voice Mail and Fax Parameters" for parameter definitions

8. Click **Enable**.

Modifying Voice Mail and Fax Users Parameters

Perform the following steps to modify voice mail or fax user parameters.

1. Using the Thin Client, navigate to the Administration page.

2. Select **User** > **Voice/Fax User Management** > **Modify User**.

3. Select the group profile of the user.

4. Click **Get Voice/Fax Users** to select from a list of users, or click **Select Voice/Fax Users** to search for a specific user.

5. Select the user and click **Edit**.

6. Modify the parameters you want to change.

7. Click **Modify**.

Voice Mail and Fax Parameters

The following is a list of voice mail and fax user parameters:

Group Profile
This parameter corresponds to the domain the selected mail user belongs to. Oracle Voicemail & Fax supports one level sub-grouping to define local PBX settings or different language preferences. Administrators are allowed to select from pre-existing groups or enter a sub-group name to be created.

Fax In Allowed
This parameter enables a user to receive faxes into their inbox. This is for an inbound fax only.

Phone Access Allowed
This parameter enables a user to use the voice mail application to listen to their messages.

Web Access Allowed

This parameter enables a user to use the Thin Client to view their messages.

Telephone Number
This parameter is a local phone number for an Oracle Voicemail & Fax user. This parameter must be set because the voice mail application plays this number as part of the standard greeting when there are no greetings present. This value should be same as the telephone number in the base user entry. If this number is changed, the Oracle Internet Directory and VPIM Mail entries must also be changed. In addition, a new mail alias will be created.

VPIM Mail
This parameter is the international number for a Oracle Voicemail & Fax user. The voice mail application uses this number to look up users. This number is associated with a domain. If this number is changed, the Oracle Internet Directory and VPIM Mail entries must also be changed. In addition, a new mail alias will be created.

VPIM Text Name
This parameter is an optional value that represents the sender's address.

Removing Voice Mail and Fax Users

Perform the following steps to remove voice mail or fax users.

1. Using the Thin Client, navigate to the Administration page.

2. Select **User** > **Voice/Fax User Management** > **Remove User**.

3. Select the domain to which the user belongs.

4. Click **Get Voice/Fax Users** to select from a list of users, or click **Select Voice/Fax Users** to search for a specific user.

5. Select the user you want to remove.

6. Click **Remove**.

4

Oracle Voicemail & Fax Processes

This chapter discusses the different telephony processes of the Oracle Voicemail & Fax system.

This chapter contains the following topics:

- Overview
- Managing Oracle Voicemail & Fax Processes
- Oracle Voicemail & Fax Process Parameters
- Oracle Voicemail & Fax Log Files

Overview

The Oracle Voicemail & Fax telephony component consists of several processes based on the Computer Telephony Server (CT Server) architecture from Enterprise Computer Telephony Forum (ECTF). Each process interacts with a call, performs the task(s) at hand and transfers the call to different processes.

These are the telephony processes:

- Routing Process: Answers inbound calls to the Oracle Voicemail system and directs them to the recording or retrieval process.

- Voice Mail Recording Process: Records voice messages and stores them in the mail store

- Voice Mail Retrieval Process: Interacts with the user and retrieves and renders messages from the mail store.

- Fax Receiving Process: Receives and stores fax messages in the mail store

- Attendant Process: Manages and transfers calls when a user wishes to speak with an operator.

- Recovery Process: Manages queued voice mail and fax messages if the mail store is unavailable.

- MWI Service Process: Manages the Message Waiting Indicator (MWI) for individual switch implementations.

- AQMWI Process: Manages the Message Waiting Indicator (MWI) requests from the mail server.

The following are examples of how a call goes through the various processes:

- Recording: The routing process picks up the call from the PBX and parses call detail information. Once the Routing process determines that it's a recording call type, the call is handed off to the Recording process or, if fax tone is detected, the call is routed to the Fax Receiving process. Recording and Fax Receiving processes interacts with Oracle Internet Directory and the mail store to store the recorded message. Calls to be transferred to an operator is handed off to Attendant process.

- Retrieval: The routing process picks up the call from the PBX and parses call detail information. Once the Routing process determines that it's a retrieval call type, the call is handed off to the retrieval process. The retreival process interacts with Oracle Internet Directory and the Oracle Voicemail & Fax mail

store. For reply and forward, the call is handed off to the recording process and for transfers, the call is handed off to the attendant process.

- MWI: When a new voice mail message arrives into a Oracle Voicemail & Fax telephony subscriber's inbox, a Message Waiting Indicator (MWI) activation request is generated for the AQMWI process. The AQMWI process interacts with Oracle Internet Directory, looks up the corresponding MWI Service process and relays the request to that MWI service process. Conversely, when there are no more unread voice mail Messages in the Oracle Voicemail & Fax telephony subscriber's inbox, an MWI deactivation request is generated to the AQMWI process and the same procedure is followed. MWI Service process performs activates and deactivates MWI for a specific PBX location.

Routing Process

When the mail server receives a call from the PBX, the routing process answers the call. This process retrieves call detail information from the PBX. This information indicates whether the current call was a direct call to the voice mail system or a forwarded call from a busy or unanswered extension. The routing process routes forwarded calls to the voice mail recording process and direct calls to voice mail retrieval process. If no call detail information is available, the routing process enables the caller to choose whether to access voice mail recording or voice mail retrieval. The routing process maintains a pool of worker threads. Each thread can handle one call at any time. The routing process can retrieve call details through SMDI or CTMEDIA.

Voice Mail Recording Process

The Oracle Voicemail & Fax voice mail recording process records and sends voice mail messages. Messeges can be sent through regular delivery or can be marked as "urgent" prior to sending. The voice mail recording process maintains a pool of worker threads. Each thread can handle one call at any time. There are four scenarios in which the caller interacts with the recording process:

- Normal Recording: When the routing process receives a forwarded call, the process routes the call to voice mail recording and provides the extension number of the call's intended recipient. Voice mail recording acquires the recipient's information from Oracle Internet Directory. The process verifies that the recipient has telephone access enabled and plays the recipient's greeting message: a personal greeting, a vacation greeting, a default greeting with a recorded name, or a default greeting with a telephone number. If a fax calling tone is detected while the greeting is played, the call is routed to the fax

receiving process. The caller records a message, and can choose to edit it. Finally, the voice mail recording interacts with the Computer Telephony Server (CT Server) to store the voice mail in the mail store.

- Unknown Origin Recording: When the routing process receives a call without call detail information and the caller chooses to record a message, the routing process routes the call to the voice mail recording process, which prompts the caller for the recipient's telephone number. The system looks up the user in Oracle Internet Directory and plays the user's greeting.

- Reply to a Message: When users choose to reply through the telephone user interface to a voice mail from another Oracle Voicemail & Fax user, the voice mail retrieval process routes the call to voice mail recording. This process plays a generic system greeting, and then the user records a message and can choose to edit it. The message's recipient is the sender of the original message. Finally, voice mail recording interacts with the Computer Telephony Server (CT Server) to store the voice mail in the mail store.

- Forward a Message: When users choose to forward a message through the telephone user interface, the voice mail retrieval process routes the call to voice mail recording. This process plays a generic system greeting, and then the user records a message, addresses it, and can choose to edit it. Finally, voice mail recording interacts with the Computer Telephony Server (CT Server) to store the voice mail in the mail store.

- Authenticated User Recording: When users choose to compose a message while they are logged in through the telephone user interface, the retrieval process transfers them to recording. The recording process plays a generic system greeting, and then the users record a message, addresses it, and can choose to edit it. Finally, voice mail recording interacts with the CT Server to store the voice mail in the mail store.

- Transfer from Retrieval: When users in the retrieval process press the star key before logging in, they are routed to the recording process and the call is handled as an Unknown Origin Recording call.

If there are any delivery problems while sending a message, the recording process places the message in a file system queue. The recovery process attempts to redeliver the message. This may occur if the mail store database is unavailable.

Voice Mail Retrieval Process

The voice mail retrieval process enables users to log in, retrieve messages, administer their accounts, reply to and forward messages, and record new messages

for users. This process maintains a pool of worker threads each of which can process one call at any time. All calls to this process arrive through the routing process.

The retrieval process prompts the caller to enter an extension number and password, and authenticates him or her against a user object in the Oracle Internet Directory server. Upon a successful authentication, this process interacts with the CT server to retrieve voicemail messages and other account information. The voice mail retrieval process enables the user to listen to, save, and delete voice mail messages. Users can also set a PIN, and record or administer greetings. Account information for the user is stored in Oracle Internet Directory.

> **See Also:** Oracle Collaboration Suite User's Guide for more information

Attendant Process

The attendant process receives a call when the caller chooses to transfer to an operator during an interaction with the voice mail recording process or the retrieval process. The attendant process looks up the operator extension in the user's group profile, and if none exist, it looks up the default extension defined in the process properties.

Fax Receiving Process

The fax receiving process receives fax messages. This process maintains a pool of worker threads each of which can process one call at any time. All calls arrive through the voice mail recording process when a fax calling tone is detected. This process receives a fax message and then delivers it to the e-mail server mail store by communicating with the CT server.

Recovery Process

The recovery process attempts to redeliver messages if the voice mail recording or fax receiving process experience errors when communicating with the mail store. This process wakes periodically and attempts to send any messages found in the file system queue. Once the recovery process can successfully send a message, the process dequeues any messages.

Process Manager Process

> **Note:** The process manager process is not managed by the Oracle Voicemail & Fax administration tool

The RMI service enables remote process startup for all Windows based processes for Oracle Voicemail & Fax. The RMI service registers itself with the RMI registry and RMID activation daemon. Client programs, like the Oracle Enterprise Manager JSP pages invoke a remote method in this RMI service to start up a specific process instance. When this service receives the request, it creates a service in the Windows Registry for the specified process instance and starts it up. If the service is already installed, it restarts the existing service.

Processes managed by this RMI service are:

- Routing Process
- Voice Mail Recording Process
- Voice Mail Retrieval Process
- Attendant Process
- Recovery Process
- Fax Receiving Process
- MWI Service Process

`rmiregistry` and the `rmid` must be running before the RMI service can be started.

MWI Service Process

The MWI service process activates and deactivates the message waiting indicators for a specific PBX in response to requests received through Java RMI. This process maintains either an SMDI or a CTMEDIA connection with the PBX. At least one MWI service process should be running for each PBX with voice mail users. The AQMWI process initiates RMI requests for this process.

AQMWI Process

The AQ MWI Process retrieves Message Waiting Indicator (MWI) activation or deactivation requests from an advanced queue (AQ), and routes them to an MWI

service process through Java Remote Method Invocation (RMI). When a user receives a new voice mail, the mail store inserts into an AQ a request to activate that user's MWI. When a user reads his or her last unread voice mail, the mail store inserts into an AQ a request to deactivate that user's MWI. The AQMWI Process retrieves the request from the AQ, looks up the user's telephone number and finds an MWI service process responsible for handling MWI for that telephone number. Finally, the AQ MWI Process sends the MWI request to that MWI service process through Java RMI.

Managing Oracle Voicemail & Fax Processes

This section describes how to start, stop, reinitialize, and modify Oracle Voicemail & Fax processes.

> **Note:** The process manager process is not managed by the Oracle Voicemail & Fax administration tool

Starting, Stopping, or Reinitializing All Oracle Voicemail & Fax Processes

Starting an Oracle Voicemail & Fax process starts all the processes comprising that service type.

Stopping an Oracle Voicemail & Fax system sends a request to the operating system to shut down all of the Oracle Voicemail & Fax processes. A reason and administrator would want to stop the Oracle Voicemail & Fax system is to perform maintenance, 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.

Reinitializing an Oracle Voicemail & Fax 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 a Oracle Voicemail & Fax process parameter is modified, it must be reinitialized to make the changes take effect.

> **Note:** The following functions can only be executed if at least one instance has been created.

Using Oracle Enterprise Manager, perform the following steps to start, stop, or reinitialize all Oracle Voicemail & Fax processes:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Click **Start, Stop,** or **Reinitialize**.

Creating an Oracle Voicemail & Fax Process Instance

Using Oracle Enterprise Manager, perform the following steps to create an Oracle Voicemail & Fax process instance:

To create a new Oracle Voicemail & Fax process instance with default parameters:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Click **Create**. This creates a new Oracle Voicemail & Fax process instance with default parameters.

To create a new Oracle Voicemail & Fax process instance with the same parameter values as an existing Oracle Voicemail & Fax process instance:

1. Select the instance with the parameters you want to replicate.

2. Click **Create Like**. This creates a new Oracle Voicemail & Fax process instance with the same parameters as the selected Oracle Voicemail & Fax process instance.

Deleting an Oracle Voicemail & Fax Process Instance

> **Warning:**   **Deleting an Oracle Voicemail & Fax process may disable some or all telephony processes.**

> **Note:**   A process must be shut down before it can be deleted.

Using Oracle Enterprise Manager, perform the following steps to delete an Oracle Voicemail & Fax process instance:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Select the Oracle Voicemail & Fax process instance you want to delete.

4. Click **Delete**.

Starting an Oracle Voicemail & Fax Process Instance

Using Oracle Enterprise Manager, perform the following steps to start an Oracle Voicemail & Fax process instance:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Select the Oracle Voicemail & Fax process instance you want to start.

4. Click **Start**.

Stopping an Oracle Voicemail & Fax Process Instance

Using Oracle Enterprise Manager, perform the following steps to stop an Oracle Voicemail & Fax process instance:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Select the Oracle Voicemail & Fax process instance you want to stop.

4. Click **Stop**.

Reinitializing a Oracle Voicemail & Fax Process Instance

> **Note:** Processes must be reinitialized whenever parameters are modified.

Using Oracle Enterprise Manager, perform the following steps to reinitialize an Oracle Voicemail & Fax process instance:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Select the Oracle Voicemail & Fax process instance you want to reinitialize.

4. Click **Reinitialize**.

Modifying Parameters for a Specific Oracle Voicemail & Fax Instance

> **Note:** Processes must be reinitialized whenever parameters are modified.

Using Oracle Enterprise Manager, perform the following steps to modify parameters for a specific Oracle Voicemail & Fax process instance:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Select the Oracle Voicemail & Fax instance you want to modify.

4. Modify the parameters you want to change.

5. Click **Apply**.

Modifying Oracle Voicemail & Fax Process Parameters

> **Note:** Processes must be reinitialized whenever parameters are modified.

Using Oracle Enterprise Manager, perform the following steps to modify Oracle Voicemail & Fax process default parameters:

1. Navigate to the Oracle Voicemail & Fax Service Targets page.

2. Select an Oracle Voicemail & Fax process.

3. Select **Change Settings**.

4. Modify the parameters you want to change.

5. Click **Apply**.

Oracle Voicemail & Fax Process Parameters

The following is a list of Oracle Voicemail & Fax process parameters and definitions:

Routing Process

Log Level

This parameter specifies the log level parameter that controls amount of logging performed by the UM process.

Acceptable Values:

- INTERNALERROR

- ERROR

- WARNING

- NOTIFICATION

- TRACE

Default Value: WARNING

Active Flag

This parameter specifies whether the instance is running.

Acceptable Values = True or False

Default Value: None

Number of Threads per Process

This parameter specifies the number of threads for this routing process within one JVM.

Acceptable Values: None

Default Value: None

Root Context for UM

This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax - specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES

This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server - specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Install Context for UM

This parameter specifies `UM Install Context`. For example, `um_system`.

Acceptable Value: The name of a `UM Install Context`

Default Value: None

Voice Mail Recording Process

Maximum Message Recording Duration

This parameter specifies the maximum length of a recorded message in milliseconds.

Acceptable Value: A string of digits

Default Value: `120000`

Maximum Silence Duration

This parameter specifies the amount of continuous silence which causes message recording to stop.

Acceptable Value: A string of digits

Default Value: `10000`

Log Level

This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- `INTERNALERROR`

- `ERROR`

- `WARNING`

- `NOTIFICATION`

- `TRACE`

Default Value: `WARNING`

Active Flag
This parameter specifies whether the instance is running.

Acceptable Values: True or False

Default Value: None

Number of Threads per Process
This parameter specifies number of threads for this Oracle Voicemail & Fax process within one JVM.

Acceptable Value: A positive integer

Default Value: None

Root Context for UM
This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES
This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Install Context for UM
This parameter specifies `UM Install Context`

Acceptable Value: A valid `UM Install Context`

Default Value: None

CT Server Name
This parameter specifies the host name of the machine where the CT server is installed. The name should be in the following format:

```
<hostname>:<port number>
```

The port number is 2019.

Acceptable Value: A valid host name

Default Value: None

CT Server Application Profile Name
This parameter specifies the name of the CT server profile that contains application configuration information.

Acceptable Value: A valid CT server profile name

Default Value: None

CT Server Group Configuration
This parameter specifies the name of the CT server group configuration that represents a collection of resources.

Acceptable Value: A valid CT server group configuration

Default Value: None

CT Application Service Name
This parameter is the CT Server Application Service ID (ASI), and is the name application uses to register itself with the CT Server.

Acceptable Value: A valid CT server application service name

Default Value: None

CTMEDIA Call Timeout Value
This parameter specifies the time (in seconds) CTMEDIA waits to configure resources for this application.

Acceptable Value: A string of digits

Default Value: None

Message Coder Type
This parameter specifies audio coder type for voice mail messages.

Acceptable Value: A valid audio coder type

Default Value: v_Linear8Bit_64k

Greeting Coder Type
This parameter specifies the audio coder type for greetings and recorded names.

Acceptable Value: A valid audio coder type

Default Value: v_Linear8Bit_64k

Mail Box Minimum Length
This number specifies the minimum number of digits that can be entered by the user for the application to be able to resolve the user's mailbox number.

Acceptable Value: A positive integer

Default Value: None

Mail Box Maximum Length
This parameter specifies the maximum number of digits permitted for the mailbox number.

Acceptable Value: A positive integer

Default Value: None

International Number Prefix List
This parameter defines a mapping between PBX extension numbers and international telephone numbers. The mapping is list of submappings separated by semicolons. Each submapping follows the form:

`<international prefix> <PBX prefix>`

where `<international prefix>` is the sequence of digits which should be appended to a PBX extension number beginning with `<PBX prefix>`. If the prefix list is 1650506;1650607, the extension 60000 is mapped to 16505060000, and 70000 is mapped to 16506070000.

Acceptable Value: A string of digits delimited by a semicolon

Default Value: None

Prefix to be Added to the PBX Number
This parameter specifies the prefix that needs to be added to the phone numbers that are sent to the application through the PBX in order to formulate a phone number in the international format

Acceptable Value: A string of digits

Default Value: 1

Length of the Number Sent by the PBX
This parameter specifies the number of digits that the PBX sends.

Acceptable Value: A positive integer

Default Value: 10

Directory Name for Stored Queued Messages
This parameter specifies the directory where the undelivered messages are stored for future delivery.

Acceptable Value: A full file system directory path

Default Value: None

Fax Receiving Application DN
This parameter specifies the distinguished name entry for the fax receiving application instance where fax calls are routed.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Attendant Application DN
This parameter specifies the distinguished nameentry for the attendant application instance where the calls are routed to when transferred to operator function.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Voice Mail Retrieval Process

Maximum Greeting Recording Duration
This parameter specifies the maximum length of a recorded greeting in milliseconds.

Acceptable Value: A string of digits

Default Value: 30000

Maximum Silence Duration
This parameter specifies the amount of continuous silence that causes the greeting recording to stop in milliseconds.

Acceptable Value: A string of digits

Default Value: `10000`

Log Level
This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- `INTERNALERROR`

- `ERROR`

- `WARNING`

- `NOTIFICATION`

- `TRACE`

Default Value: `WARNING`

Active Flag
This parameter specifies whether the instance is running.

Acceptable Values: True or False

Default Value: None

Number of Threads per Process
This parameter specifies the number of threads for this Oracle Voicemail & Fax process within one JVM.

Acceptable Value: A positive integer

Default Value: None

Root Context for UM
This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES
This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Install Context for UM

This parameter specifies the UM Install Context

Acceptable Value: A valid UM Install Context

Default Value: None

CT Server Name

This parameter specifies the host name of the machine where the CT server is installed. The name should be in the following format:

```
<hostname>:<port number>
```

The port number is 2019.

Acceptable Value: A valid host name

Default Value: None

CT Server Application Profile Name

This parameter specifies the name of the CT server profile that contains application configuration information.

Acceptable Value: A valid CT server profile name

Default Value: None

CT Server Group Configuration

This parameter specifies the name of the CT server group configuration that represents a collection of resources.

Acceptable Value: A valid CT server group configuration

Default Value: None

CT Application Service Name

This parameter is the CT Server Application Service ID (ASI), and is the name application uses to register itself with the CT Server.

Acceptable Value: A valid CT server application service name

Default Value: None

CTMEDIA Call Timeout Value

This parameter specifies the time (in seconds) CTMEDIA waits to configure resources for this application.

Acceptable Value: A string of digits

Default Value: None

Message Coder Type

This parameter specifies audio coder type for voice mail messages.

Acceptable Value: A valid audio coder type

Default Value: v_Linear8Bit_64k

Greeting Coder Type

This parameter specifies the audio coder type for greetings and recorded names.

Acceptable Value: A valid audio coder type

Default Value: v_Linear8Bit_64k

Mail Box Minimum Length

This number specifies the minimum number of digits that can be entered by the user for the application to be able to resolve the user's mailbox number.

Acceptable Value: A positive integer

Default Value: None

Mail Box Maximum Length

This parameter specifies the maximum number of digits permitted for the mailbox number.

Acceptable Value: A positive integer

Default Value: None

Maximum Allowed Digits in Pin Number

This parameter specifies the maximum number of digits allowed for the PIN.

Acceptable Value: A positive integer

Default Value: None

Minimum Allowed Digits in Pin Number
This parameter specifies the minimum number of digits allowed for the PIN. If the PIN entered by the user does not fall within the minimum and maximum range, it is rejected.

Acceptable Value: A positive integer

Default Value: None

International Number Prefix List
This parameter defines a mapping between PBX extension numbers and international telephone numbers. The mapping is list of submappings separated by semicolons. Each submapping follows the form:

```
<international prefix> <PBX prefix>
```

where `<international prefix>` is the sequence of digits which should be appended to a PBX extension number beginning with `<PBX prefix>`. If the prefix list is 1650506;1650607, the extension 60000 is mapped to 16505060000, and 70000 is mapped to 16506070000.

Acceptable Value: A positive integer

Default Value: None

Prefix to Be Added to the PBX Number
This parameter specifies the prefix that needs to be added to the phone numbers that are sent to the application through the PBX in order to formulate a phone number in the international format.

Acceptable Value: A positive integer

Default Value: 1

Length of the Number Sent by the PBX
This parameter specifies the number of digits that the PBX sends.

Acceptable Value: A positive integer

Default Value: 10

Voice Recording Application DN
This parameter specifies the distinguished name entry for the recording application instance to which recording calls are routed.

Acceptable Value: A valid Oracle Internet Directory distinguished name.

Default Value: None

Attendant Application DN
This parameter specifies the distinguished name entry for attendant application instance which the calls are routed to when transferred to the operator function.

Acceptable Value: A valid Oracle Internet Directory distinguished name.

Default Value: None

Attendant Process

Log Level
This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- INTERNALERROR

- ERROR

- WARNING

- NOTIFICATION

- TRACE

Default Value: WARNING

Active Flag
This parameter specifies whether the instance is running.

Acceptable Values: True or False

Default Value: None

Number of Threads per Process
This parameter specifies the number of threads for this Oracle Voicemail & Fax process within one JVM.

Acceptable Value: A positive integer

Default Value: None

Root Context for UM

This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES

This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Install Context for UM

This parameter specifies `UM Install Context`

Acceptable Value: A valid `UM Install Context`

Default Value: None

CT Server Name

This parameter specifies the host name of the machine where the CT server is installed. The name should be in the following format:

```
<hostname>:<port number>
```

The port number is 2019.

Acceptable Value: A valid host name

Default Value: None

CT Server Application Profile Name

This parameter specifies the name of the CT server profile that contains application configuration information.

Acceptable Value: A valid CT server profile name

Default Value: None

CT Server Group Configuration

This parameter specifies the name of the CT server group configuration that represents a collection of resources.

Acceptable Value: A valid CT server group configuration

Default Value: None

CT Application Service Name

This parameter is the CT Server Application Service ID (ASI), and is the name application uses to register itself with the CT Server.

Acceptable Value: A valid CT server application service name

Default Value: None

CTMEDIA Call Timeout Value

This parameter specifies the time (in seconds) CTMEDIA waits to configure resources for this application.

Acceptable Value: A string of digits

Default Value: None

Dialing Number For Attendant

A PBX-dialable working telephone number where the calls are routed to when they are transferred to the operator function.

Acceptable Value: A string of digits

Default Value: None

Fax Receiving Process

Log Level

This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- INTERNALERROR

- ERROR

- WARNING

- NOTIFICATION

- TRACE

Default Value: WARNING

Active Flag

This parameter specifies whether the instance is running.

Acceptable Values: True or False

Default Value: None

Number of Threads per Process

This parameter specifies the number of threads for this Oracle Voicemail & Fax process within one JVM.

Acceptable Value: A positive integer

Default Value: None

Root Context for UM

This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES

This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Install Context for UM

This parameter specifies `UM Install Context`

Acceptable Value: A valid `UM Install Context`

Default Value: None

CT Server Name

This parameter specifies the host name of the machine where the CT server is installed. The name should be in the following format:

```
<hostname>:<port number>
```

The port number is 2019.

Acceptable Value: A valid host name

Default Value: None

CT Server Application Profile Name
This parameter specifies the name of the CT server profile that contains application configuration information.

Acceptable Value: A valid CT server profile name

Default Value: None

CT Server Group Configuration
This parameter specifies the name of the CT server group configuration that represents a collection of resources.

Acceptable Value: A valid CT server group configuration

Default Value: None

CT Application Service Name
This parameter is the CT Server Application Service ID (ASI), and is the name application uses to register itself with the CT Server.

Acceptable Value: A valid CT server application service name

Default Value: None

CTMEDIA Call Timeout Value
This parameter specifies the time (in seconds) CTMEDIA waits to configure resources for this application.

Acceptable Value: A string of digits

Default Value: None

Mail Box Minimum Length
This number specifies the minimum number of digits that can be entered by the user for the application to be able to resolve the user's mailbox number.

Acceptable Value: A positive integer

Default Value: None

Mail Box Maximum Length
This parameter specifies the maximum number of digits permitted for the mailbox number.

Acceptable Value: A positive integer

Default Value: None

International Number Prefix List

This parameter defines a mapping between PBX extension numbers and international telephone numbers. The mapping is list of submappings separated by semicolons. Each submapping follows the form:

```
<international prefix> <PBX prefix>
```

where `<international prefix>` is the sequence of digits which should be appended to a PBX extension number beginning with `<PBX prefix>`. If the prefix list is 1650506;1650607, the extension 60000 is mapped to 16505060000, and 70000 is mapped to 16506070000.

Acceptable Value: A positive integer

Default Value: None

Prefix to Be Added to the PBX Number

This parameter specifies the prefix that needs to be added to the phone numbers that are sent to the application through the PBX in order to formulate a phone number in the international format.

Acceptable Value: A positive integer

Default Value: 1

Length of the Number Sent by the PBX

This parameter specifies the number of digits that the PBX sends.

Acceptable Value: A positive integer

Default Value: 10

Directory Name for Stored Queued Messages

This parameter specifies the directory where the undelivered messages are stored for future delivery.

Acceptable Value: A file system directory path

Default Value: None

Recovery Process

Log Level

This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- `INTERNALERROR`

- `ERROR`

- `WARNING`

- `NOTIFICATION`

- `TRACE`

Default Value: `WARNING`

Active Flag

This parameter specifies whether the instance is running.

Acceptable Values: True or False

Default Value: None

Number of Threads per Process

This parameter specifies the number of threads for this Oracle Voicemail & Fax process within one JVM.

Acceptable Value: A positive integer

Default Value: None

Root Context for UM

This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES

This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Install Context for UM
This parameter specifies `UM Install Context`

Acceptable Value: A valid `UM Install Context`

Default Value: None

CT Server Name
This parameter specifies the host name of the machine where the CT server is installed.

The name should be in the following format:

`<hostname>:<port number>`

The port number is 2019.

Acceptable Value: A valid host name

Default Value: None

CT Server Application Profile Name
This parameter specifies the name of the CT server profile that contains application configuration information.

Acceptable Value: A valid CT server profile name

Default Value: None

CT Server Group Configuration
This parameter specifies the name of the CT server group configuration that represents a collection of resources.

Acceptable Value: A valid CT server group configuration

Default Value: None

CT Application Service Name
This parameter is the CT Server Application Service ID (ASI), and is the name application uses to register itself with the CT Server.

Acceptable Value: A valid CT server application service name

Default Value: None

CTMEDIA Call Timeout Value

This parameter specifies the time (in seconds) CTMEDIA waits to configure resources for this application.

Acceptable Value: A string of digits

Default Value: None

Process Manager Process

> **Note:** The process manager process is not managed by the Oracle Voicemail & Fax administration tool and the following attributes can be modified through the Oracle Internet Directory administration tool.

Log Level

This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- `INTERNALERROR`
- `ERROR`
- `WARNING`
- `NOTIFICATION`
- `TRACE`

Default Value: `WARNING`

Process ID

This parameter specifies the process identification.

Acceptable Values: None

Default Value: None

Active Flag

This parameter specifies whether the instance is running.

Acceptable Values: True or False

Default Value: None

Root Context for UM

This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES

This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

JavaHome

Full path name of the Java home directory that is used to locate the `java.exe` executable.

Acceptable Value: A file system directory path

Default Value: None

System Root

Full path name of the Windows system root directory that is used to located `cmd.exe` and any other windows system executables.

Acceptable Value: A file system directory path

Default Value: None

ResourceKit Home

This parameter specifies the full path name of the Windows resource kit directory. Is used to locate the `srvany.exe`, `instsrv.exe`, `sc.exe`, and other resource kit executables.

Acceptable Value: A file system directory path

Default Value: None

CTMEDIA Home

Full path name of the CTMEDIA directory that issued to locate the libraries and `dlls` under `CTMEDIA\Shared Files` folder.

Acceptable Value: A file system directory path

Default Value: None

MWI Service Process

Log Level
This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- INTERNALERROR

- ERROR

- WARNING

- NOTIFICATION

- TRACE

Default Value: WARNING

Set of International Phone Numbers
This parameter specifies the set of phone numbers for which this process controls MWI activation or deactivation. The set is the union of all phone number subsets listed under this attribute.

Acceptable Value: A semicolon-delimited list of international phone number subsets. A phone number subset is a string of digits and asterisk characters which are wildcards. For example, 1650506****; 1650507****.

Default Value: None

RMI URL
This parameter specifies the RMI URL of the MWI service. The MWI service registers as an RMI service with the name <service name>. If a port number is specified, the MWI service registers with the RMI registry on that port. Otherwise, it uses the default port. Other processes use the entire RMI URL to connect to this MWI service through RMI.

Acceptable Value: A well-formed URL for RMI.

Default Value: None

PBX integration type
This parameter specifies the PBX connection type. If the type is CTMEDIA, then this process attempts to set or unset MWI through CTMEDIA. If the type is SMDI, attempts to set or unset MWI through an SMDI monitor process.

Acceptable Values: SMDI or CTMEDIA

Default Value: None

SMDI Monitor Host Name
This parameter specifies the host name of a machine running the SMDI monitor.

Acceptable Value: A valid host name

Default Value: None

SMDI Monitor Port
This parameter specifies the port number on which the SMDI monitor accepts connections.

Acceptable Value: A valid TCP port number

Default Value: None

SMDI Monitor Timeout Value
This parameter specifies the timeout (in milliseconds) for socket communication with the SMDI monitor.

Acceptable Value: A positive integer

Default Value: None

MWI Phone Number Suffix Size for SMDI
Indicates the number of digits from the phone number to pass to the SMDI monitor. If the suffix size is five, then the rightmost five digits of phone number are used, and the rest are discarded. If the SMDI MWI prefix is defined, it is prepended to those five digits.

Acceptable Value: A positive integer

Default Value: None

MWI Phone Number Prefix for CTMedia
A string of digits to be prepended to a phone number (after suffix truncation) before it is passed to the CTMEDIA service.

Acceptable Value: A string of digits

Default Value: None

CTMEDIA MWI Provider Name

This parameter specifies the provider string for the CT server which hosts the MWI session service.

Acceptable Value: An IT Media provider string of the following form <profilename>@<server>:<port>

Default Value: None

CTMEDIA MWI Service Name

This parameter specifies the name of the MWI session service.

Acceptable Value: A valid name of a CTMEDIA session service.

Default Value: MWI service

MWI Phone Number Suffix Size for CTMEDIA

Indicates the number of digits from the phone number to pass to the CTMEDIA service. If the suffix size is 5, the rightmost 5 digits of phone number are used, and the rest are discarded. The CTMEDIA MWI prefix, if one is defined, is then prepended to those 5 digits.

Acceptable Value: A positive integer

Default Value: None

MWI Phone Number Prefix for CTMedia

A string of digits to be prepended to a phone number (after suffix truncation) before it is passed to the CTMEDIA service.

Acceptable Value: A string of digits

Default Value: None

AQMWI Process

Log Level

This parameter specifies the log level parameter that controls amount of logging performed by the Oracle Voicemail & Fax process.

Acceptable Values:

- INTERNALERROR

- ERROR

- WARNING

- NOTIFICATION

- TRACE

Default Value: WARNING

Number of Threads
This parameter specifies the number of threads which should be listening to the AQ and processing MWI requests.

Acceptable Value: A positive integer

Default Value: 1

Port number of AQ DB Listener
This parameter specifies the port number on which the database listens for connections.

Acceptable Value: A valid TCP port number

Default Value: 1521

Connect string for AQ DB
This parameter specifies the connect string for the database which holds the AQ.

Acceptable Value: A valid Oracle connect string

Default Value: None

AQ name
This parameter specifies the name of the AQ on which MWI requests are made.

Acceptable Value: A valid name for an Oracle Advanced Queue

Default Value: None

User ID for connecting to the database
This parameter specifies the user ID for connecting to the database.

Acceptable Value: A valid oracle user ID

Default Value: None

Password for connecting to the database
This parameter specifies the password for connecting to the database.

Acceptable Value: A valid oracle user password

Install Root Context

This parameter specifies the distinguished name of the container for this installation in Oracle Internet Directory. This domain name's subtree contains information specific to a Oracle Voicemail & Fax installation.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for UM

This parameter specifies the distinguished name of the Oracle Voicemail & Fax container in Oracle Internet Directory. This domain name's subtree contains Oracle Voicemail & Fax specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Root Context for ES

This parameter specifies the distinguished name of the e-mail server container in Oracle Internet Directory. This domain name's subtree contains e-mail server specific information.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Process Root Context

This parameter specifies the domain name of the e-mail server container in Oracle Internet Directory. The subtree of this domain name contains configuration information for all processes.

Acceptable Value: A valid Oracle Internet Directory distinguished name

Default Value: None

Oracle Voicemail & Fax Log Files

The following is a list of Oracle Voicemail & Fax log file locations:

Routing Process

On Windows:

```
%ORACLE_HOME\um\log\UMMediaApp
```

Voice Mail Recording Process:

On Windows:

`%ORACLE_HOME\um\log\VMrecordingMediaApp`

Voice Mail Retrieval Process

On Windows:

`%ORACLE_HOME\um\log\VMretrievalMediaApp`

Attendant Process

On Windows:

`%ORACLE_HOME\um\log\AttendantMediaAPP`

Fax Receiving Process

On Windows:

`%ORACLE_HOME\um\log\FaxReceivingMediaApp`

Recovery Process

On Windows:

`%ORACLE_HOME\um\log\DBRecovery`

Process Manager Process

> **Note:** The process manager process is not managed by the Oracle Voicemail & Fax administration tool.

On Windows:

`%ORACLE_HOME\um\log\ProcessMgrService`

MWI Service Process

On Windows:

`%ORACLE_HOME\um\log\MWIService`

AQMWI Process

On UNIX:

`$ORACLE_HOME/um/log/AQMWIStarter`

On Windows:

`%ORACLE_HOME\um\log\AQMWIStarter`

5

Error Messages

This chapter contains component-specific errors. The error codes are divided into the following groups:

- Overview
- Routing Process
- Voice Mail Recording Process
- Voice Mail Retrieval Process
- Attendant Process
- Fax Receiving Process
- MWI Service Process
- AQMWI Process

Overview

Error messages may appear in any part of Oracle Voicemail & Fax. Users may see them in the end-user interface, and administrators may see them in the administrative tools and process logs.

Sometimes, more than one error is displayed. A list of error messages is called an error stack. The bottommost error in the stack is typically the cause of the error.

> **Note:** The error stack may contain error messages from other Oracle products that Oracle Voicemail & Fax uses. When these additional errors appear, refer to the documentation for the given product.

Routing Process

Error: Unable to establish Oracle Internet Directory connection
Cause: The Oracle Internet Directory server is not accessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Error: Can't communicate with Oracle Internet Directory
Cause: The Oracle Internet Directory server is not accessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Internal Error: Unknown exception caught in + thisClassName +.run()
Cause: Unknown error.

Action: If the problem persists, reboot the system and report the problem.

Internal Error: Reinitialization failed
Cause: Attempting to reinitialize the application after an unknown error failed.

Action: Reboot the system and report the problem.

Internal Error: thisClassName
Cause: The application thread is shutting down due to failed reinitialization after an unknown error.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closed
Cause: The application has attempted thread-specific cleanup and will shutdown due to failed initialization after an unknown error.

Action: Reboot the system and report the problem.

Error: Lost connection with Oracle Internet Directory while trying to lookup user - Retrying
Cause: Oracle Internet Directory is down or inaccessible.

Action: None. Application will automatically retry connection

Error: naming exception encountered while trying to lookup user
Cause: Oracle Voicemail & Fax is answering calls for users who do not have Oracle Internet Directory entries or who have incorrect Oracle Internet Directory entries.

Action: If the user should be on the system, make sure that the user's VPIM user object has a correct VPIM mail address. If the user should not be on the system, then configure the PBX not to forward that user's calls to Oracle Voicemail & Fax.

Error: No queueing location defined in Oracle Internet Directory
Cause: The application is attempting to queue a message and the message queue location is undefined in Oracle Internet Directory.

Action: Set the message queue location in the appropriate process or instance objects in Oracle Internet Directory.

Error: Unexpected I/O error
Cause: Error outputting a message to the recovery queue.

Action: Check disk space and permissions on the queue directory.

Internal Error: Message file + messageFile + does not exist
Cause: Application error condition.

Action: Restart the machine, check disk space, and report the problem if it persists.

Error: Cannot send message: queueing
Cause: The mail store database is down or inaccessible or there is another problem with message sending.

Action: Make sure the recovery application is running. It will send the message when the database is accessible again. Check database.

Internal Error: Needed parameter settings are missing
Cause: Oracle Internet Directory process or instance settings which are required for process startup are missing.

Action: Make sure that all Oracle Internet Directory properties required for the application are set in the appropriate process or instance objects.

Error: Error retrieving coder type from Oracle Internet Directory
Cause: The code type stored in a user or greeting Oracle Internet Directory object is incorrectly formatted. It may have been altered.

Action: Correct the formatting of the coder type, and make sure that the default coder types are valid ones.

Error: Fatal error: Can't create prompt table
Cause: The installation default message localization description string (XML) is poorly formed.

Action: Correct the message localization description string.

Error: Fatal error: Can't create menu table
Cause: The installation default menu item bindings description string (XML) is poorly formed.

Action: Correct the menu item bindings description string.

Error: Fatal error: Unexpected Naming Exception
Cause: Oracle Internet Directory error while looking up the installation default message localization description string or the installation default menu item bindings description string.

Action: Make sure that a default menu object and a default prompts object exist in Oracle Internet Directory as immediate children of the installation container in Oracle Internet Directory. The default attributes of both objects should be set to true.

Internal Error: Unexpected exception
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Error refreshing
Cause: The current configuration of the process instance being refreshed is invalid. A setting made since the process instance's last startup is wrong.

Action: Correct the process instances in the Oracle Internet Directory settings.

Error: Error in retrieving the signal. `Current` value = + signals + Event = + sdev
Cause: IT Media or CT Media API error. This message should never occur.

Action: Check disk space, reboot the system, and report the problem if it persists.

Internal Error: Item handler does not exist for + itemTriggered.getName() + in + menuName
Cause: Internal application coding error. This message should never occur.

Action: Edit the menu item bindings configuration string to disable the menu item whose handler is missing.

Error: No AttendantAsi defined! Cannot release to AttendantMediaApp
Cause: The ASI for the attendant application is not defined in the attendant Oracle Internet Directory object to which this process instance's Oracle Internet Directory configuration points.

Action: Define the attendant ASI in the appropriate Oracle Internet Directory object.

Internal Error: Unexpected MediaBindException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem releasing the call to the attendant application. The attendant application is not running or not enough threads are running.

Action: Make sure the attendant application is running.

Internal Error: Unexpected MediaConfigException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem reconfiguring the group for forwarding to the attendant application. The `UMMediaServicesProfile` could be configured incorrectly.

Action: Check `UMMediaServicesProfile`.

Error: Fax tone detected - this is a fax call. Cannot continue processing this call
Cause: A fax tone was detected for a call for which call details were unavailable.

Action: Make sure call details are available. Also make sure that fax tone settings in CT Media are reasonable.

Internal Error: MediaResourceException encountered
Cause: There was an unexpected problem performing a resource operation such as playing a message or detecting signals.

Action: Consult CT Media documentation for the meaning of the error code, if one is logged. Make sure that all sound files are installed. Make sure that disk space is available. Restart machine if all else fails.

Internal Error: Unexpected MediaBindException when releasing to service + mbex
Cause: There was a problem releasing the call to the recording or retrieval application. The recording or retrieval application is not running or not enough threads are running.

Action: Make sure the recording or retrieval application is running.

Internal Error: Unexpected MediaConfigException when releasing to service
Cause: There was a problem reconfiguring the group for forwarding to the recording or retrieval application. The `UMMediaServicesProfile` may be configured incorrectly.

Action: Check the `UMMediaServicesProfile`.

Error: PBXConnection is null
Cause: The PBX connection type is missing or unrecognized, or, for SMDI connections, the SMDI monitor host, port, or timeout properties are missing.

Action: Correct all required PBX connection related properties in the appropriate Oracle Internet Directory process or instance object.

Internal Error: Unexpected exception trying to initialize MediaProvider
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception trying to initialize MediaProvider
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Poorly formatted integer parameter
Cause: A well-formed XML string has an integer parameter value which cannot be parsed as an integer.

Action: From the log files, determine which XML string is causing the problem and correct it.

Error: Parse exception
Cause: A localized message description string is not correctly formed.

Action: From the log files determine which string is not correctly formed and correct it.

Error: Unexpected SAX Exception
Cause: Unexpected error.

Action: Determine from the logs which XML string is being parsed, and make sure the XML string is formed correctly.

Internal Error: I/O Exception shouldn't ever happen here
Cause: Message should never occur.

Action: Report the problem.

Voice Mail Recording Process

Error: Unable to establish Oracle Internet Directory connection
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Error: Can't communicate with Oracle Internet Directory
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Internal Error: Unknown exception caught in + thisClassName +.run()
Cause: Unknown error.

Action: If the problem persists, reboot the system and report the problem.

Internal Error: Reinitialization failed
Cause: Attempting to reinitialize the application after an unknown error failed.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closing
Cause: The application thread is shutting down due to failed reinitialization after an unknown error.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closed
Cause: The application has attempted thread-specific cleanup and will shutdown due to failed initialization after an unknown error.

Action: Reboot the system and report the problem.

Error: Lost connection with Oracle Internet Directory while trying to lookup user - Retrying
Cause: Oracle Internet Directory is down or inaccessible.

Action: None. Application will automatically retry connection.

Error: Naming exception encountered while trying to lookup user
Cause: Oracle Voicemail & Fax is answering calls for users who do not have Oracle Internet Directory entries or who have incorrect Oracle Internet Directory entries.

Action: If the user should be on the system, make sure that the user's VPIM user object has a correct VPIM mail address. If the user should not be on the system, then configure the PBX not to forward that user's calls to Oracle Voicemail & Fax.

Error: No queueing location defined in Oracle Internet Directory
Cause: The application is attempting to queue a message and the message queue location is undefined in Oracle Internet Directory.

Action: Set the message queue location in the appropriate process or instance objects in Oracle Internet Directory.

Error: Unexpected I/O error
Cause: Error outputting a message to the recovery queue.

Action: Check disk space and permissions on the queue directory.

Internal Error: Message file + messageFile + does not exist
Cause: Application error condition.

Action: Restart the machine, check disk space, and report the problem if it persists.

Error: Cannot send message: queueing
Cause: The mail store database is down or inaccessible or there is another problem with message sending.

Action: Make sure the recovery application is running. It will send the message when the database is accessible again. Check database.

Internal Error: Needed parameter settings are missing

Cause: Oracle Internet Directory process or instance settings which are required for process startup are missing.

Action: Make sure that all Oracle Internet Directory properties required for the application are set in the appropriate process or instance objects.

Error: Error retrieving coder type from Oracle Internet Directory

Cause: The code type stored in a user or greeting object in Oracle Internet Directory is incorrectly formatted. It may have been altered.

Action: Correct the formatting of the coder type, and make sure that the default coder types are valid ones.

Error: Fatal error: Cannot create prompt table

Cause: The installation default message localization description string (XML) is poorly formed.

Action: Correct the message localization description string.

Error: Fatal error: Cannot create menu table

Cause: The installation default menu item bindings description string (XML) is poorly formed.

Action: Correct the menu item bindings description string.

Error: Fatal error: Unexpected NamingException

Cause: There was an Oracle Internet Directory error while looking up the installation default message localization description string or the installation default menu item bindings description string.

Action: Make sure that a default menu object and a default prompts object exist in Oracle Internet Directory. The immediate children of the installation container in Oracle Internet Directory. The default attributes of both objects should be set to true.

Internal Error: Unexpected exception

Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception

Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Error refreshing
Cause: The current configuration of the process instance being refreshed is invalid. A setting made since the process instance's last startup is wrong.

Action: Correct the Oracle Internet Directory process instance settings.

Error: Error in retrieving the signal. Current value = + signals + Event = + sdev
Cause: IT Media or CT Media API error. This message should never occur.

Action: Check disk space, reboot the system, and report the problem if it persists.

Internal Error: Item handler does not exist for + itemTriggered.getName() + in + menuName
Cause: Internal application coding error. This message should never occur.

Action: Edit the menu item bindings configuration string to disable the menu item whose handler is missing.

Error: No AttendantAsi defined! Cannot release to AttendantMediaApp.
Cause: The ASI for the attendant application is not defined in the attendant Oracle Internet Directory object to which this process instance's Oracle Internet Directory configuration points.

Action: Define the attendant ASI in the appropriate Oracle Internet Directory object.

Internal Error: Unexpected MediaBindException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem releasing the call to the attendant application. The attendant application is not running or not enough threads are running.

Action: Make sure the attendant application is running.

Internal Error: Unexpected MediaConfigException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem reconfiguring the group for hand off to the attendant application. The `UMMediaServicesProfile` profile is not configured correctly.

Action: Check `UMMediaServicesProfile`.

Internal Error: Unexpected exception trying to initialize MediaProvider
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception trying to initialize MediaProvider
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Poorly formatted integer parameter: + value
Cause: A well-formed XML string has an integer parameter value which cannot be parsed as an integer.

Action: Determine from the logs which XML string is causing the problem, and correct it.

Error: Parse exception: + errorStream.toString()
Cause: A localized message description string is not formed correctly.

Action: Determine from the logs which string is not formed correctly, and correct it.

Error: Unexpected SAXException: + errorStream.toString()
Cause: Unexpected error.

Action: Determine from the logs which XML string is being parsed, and make sure the XML string is well formed.

Internal Error: I/O Exception should not ever happen here
Cause: Message should never occur.

Action: Report the problem.

Error: Oracle Internet Directory is down and installation may be + multi-instance. Aborting call
Cause: Oracle Internet Directory is down and no default domain is set in the environment.

Action: If the installation encompasses multiple domains, do nothing. If it is a single domain installation, set the default domain parameter in Oracle Internet Directory to be the name of the single domain.

Error: User does not have VM access.
Cause: The user who called in does not have voice mail access.

Action: If the user should have voice mail access, enable the user's voice mail access in Oracle Internet Directory.

Error: Fax tone detected - this is a fax call.
Cause: A fax call was received.

Action: None.

Internal Error: Unexpected MediaConfigException when releasing to service + faxReceivingAsi

Cause: There was a problem reconfiguring the group for hand off to the fax application. There may not be enough fax resources installed.

Action: If this problem is persistent, install more fax cards.

Internal Error: Unexpected MediaBindException when releasing to service + faxReceivingAsi

Cause: There was a problem delegating the call to the fax application. The fax application is not running or not enough threads are running.

Action: Make sure the fax application is running.

Internal Error: RuntimeException received

Cause: An unknown error condition.

Action: Report the problem if it persists.

Internal Error: Unexpected MediaBindException

Cause: CT Server corruption. This message should never occur.

Action: Check disk space and reboot the CT Server.

Internal Error: No destination address has been specified. Message in + recordingFile + will not be sent.

Cause: The user did not specify any message recipients.

Action: None.

Internal Error: Recorded message file does not exist

Cause: Unexpected error condition or CT Server corruption.

Action: Check disk space and reboot the CT Server.

Error: Error obtaining user's phone number

Cause: The message which is being replied to or forwarded has a sender whose text name is numeric, but not a phone number of a user in the system. The sender could have been removed from the system or could have an entirely numeric text name defined in Oracle Internet Directory.

Action: None

Internal Error: Container Exception while retrieving the header parameter on the message. Exception Details: This is the exception + cex.toString() + This is the event + ev.toString()

Cause: An error communicating with the database, or simultaneous deletion of the message being forwarded or replied to.

Action: Check database connection.

Error: FaxReceivingAsi is null - cannot release to FaxRecevingMediaApp!

Cause: The ASI is not set in the fax process instance's Oracle Internet Directory object referenced in this process instance's object.

Action: Make sure the ASI is set in the appropriate fax process or instance object.

Error: Recorder stopped for unknown reason: qual is null

Cause: CT Media or IT Media API error.

Action: Check disk space and report the problem if it persists.

Error: RTC trigger is null in msg recording

Cause: CT Media or IT Media API error.

Action: Check disk space and report the problem if it persists.

Error: Unknown RTC trigger: + trigger

Cause: CT Media or IT Media API error, or an additional RTC has been defined in the CT Media application profile.

Action: Check disk space, correct the application if necessary, and report the problem if it persists.

Error: Error looking up user's Attendant Extension! Cannot release to AttendantMediaApp

Cause: The user's attendant extension cannot be found in Oracle Internet Directory.

Action: Make sure that the attendant extension is set in Oracle Internet Directory under one of the user's parent group profiles.

Error: User's phone number is null

Cause: The telephone number field for a VPIM user is not set.

Action: Set the telephone number to the local telephone number of the VPIM user.

Error: User's phone number is too long: + phoneNumber

Cause: The user's telephone number is too long to be played.

Action: Shorten the user's telephone number. The length should be large enough to accommodate any phone number.

Voice Mail Retrieval Process

Error: Unable to establish Oracle Internet Directory connection
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Error: Cannot communicate with Oracle Internet Directory
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Internal Error: Unknown exception caught in + thisClassName +.run()
Cause: Unknown error.

Action: If the problem persists, reboot the system and report the problem.

Internal Error: Reinitialization failed: + e2
Cause: Attempting to reinitialize the application after an unknown error failed.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closing
Cause: The application thread is shutting down due to failed reinitialization after an unknown error.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closed
Cause: The application has attempted thread-specific cleanup and will shut down due to failed initialization after an unknown error.

Action: Reboot the system and report the problem.

Error: Lost connection with Oracle Internet Directory while trying to lookup the user - Retrying
Cause: Oracle Internet Directory is down or inaccessible.

Action: None. Application will automatically retry connection.

Error: Naming Exception encountered while trying to lookup the user
Cause: Oracle Voicemail & Fax is answering calls for users who do not have Oracle Internet Directory entries or who have incorrect Oracle Internet Directory entries.

Action: If the user should be on the system, make sure that the user's VPIM user object has a correct VPIM mail address. If the user should not be on the system, then configure the PBX not to forward that user's calls to Oracle Voicemail & Fax.

Error: No queueing location defined in Oracle Internet Directory
Cause: The application is attempting to queue a message and the message queue location is undefined in Oracle Internet Directory.

Action: Set the message queue location in the appropriate process or instance objects in Oracle Internet Directory.

Error: Unexpected I/O error
Cause: Error outputting a message to the recovery queue.

Action: Check disk space and permissions on the queue directory.

Internal Error: Message file + messageFile + does not exist
Cause: Application error condition.

Action: Restart the machine, check disk space, and report the problem if it persists.

Error: Cannot send message: queueing
Cause: The mail store database is down or inaccessible or there is another problem with message sending.

Action: Make sure the recovery application is running. It will send the message when the database is accessible again. Check database.

Internal Error: Needed parameter settings are missing
Cause: Oracle Internet Directory process or instance settings which are required for process startup are missing.

Action: Make sure that all Oracle Internet Directory properties required for the application are set in the appropriate process or instance objects.

Error: Error retrieving coder type from Oracle Internet Directory
Cause: The code type stored in a Oracle Internet Directory user or greeting object is incorrectly formatted. It may have been altered.

Action: Correct the formatting of the coder type, and make sure that the default coder types are valid ones.

Error: Fatal error: Can't create prompt table
Cause: The installation default message localization description string (XML) is poorly formed.

Action: Correct the message localization description string.

Error: Fatal error: Can't create menu table
Cause: The installation default menu item bindings description string (XML) is poorly formed.

Action: Correct the menu item bindings description string.

Error: Fatal error: Unexpected naming exception
Cause: Oracle Internet Directory error while looking up the installation default message localization description string or the installation default menu item bindings description string exist in Oracle Internet Directory as immediate children of the installation container in Oracle Internet Directory. The default attributes of both objects should be set to true.

Internal Error: Unexpected exception
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Error refreshing
Cause: The current configuration of the process instance being refreshed is invalid. A setting made since the process instance's last startup is wrong.

Action: Correct the process instance's Oracle Internet Directory settings.

Error: Error in retrieving the signal. Current value = + signals + Event = + sdev
Cause: IT Media or CT Media API error. This message should never occur.

Action: Check disk space, reboot the system, and report the problem if it persists.

Internal Error: Item handler does not exist for + itemTriggered.getName() + in + menuName
Cause: Internal application coding error. This message should never occur.

Action: Edit the menu item bindings configuration string to disable the menu item whose handler is missing.

Error: No AttendantAsi defined! Cannot release to AttendantMediaApp
Cause: The ASI for the attendant application is not defined in the Oracle Internet Directory attendant object to which this process instance's Oracle Internet Directory configuration points.

Action: Define the attendant ASI in the appropriate Oracle Internet Directory object.

Internal Error: Unexpected MediaBindException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem releasing the call to the attendant application. The attendant application is not running or not enough threads are running.

Action: Make sure the attendant application is running.

Internal Error: Unexpected MediaConfigException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem reconfiguring the group for hand off to the attendant application. The UMMediaServicesProfile profile could be configured incorrectly.

Action: Check the UMMediaServicesProfile.

Internal Error: Unexpected exception trying to initialize MediaProvider
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception trying to initialize MediaProvider
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Poorly formatted integer parameter: + value
Cause: A well-formed XML string has an integer parameter value which cannot be parsed as an integer.

Action: Determine from the logs which XML string is causing the problem, and correct it.

Error: Parse exception: + errorStream.toString()
Cause: A localized message description string is not formed correctly.

Action: Determine from the logs which string is not formed correctly, and correct it.

Error: Unexpected SAX Exception: + errorStream.toString()
Cause: Unexpected error.

Action: Determine from the logs which XML string is being parsed, and make sure the XML string is well formed.

Internal Error: I/O Exception shouldn't ever happen here
Cause: Message should never occur.

Action: Report the problem.

Internal Error: RuntimeException received
Cause: An unexpected application condition.

Action: Check disk space, network connectivity, and access privileges.

Error: Setting the startSearchMessageUid value in Oracle Internet Directory to = +messageUid.toString() + failed!
Cause: An error communicating with Oracle Internet Directory. This error is non-fatal, but may reveal more serious Oracle Internet Directory communication problems.

Action: Try the operation again and see whether the condition recurs. Check if the Oracle Internet Directory server is down.

Error: Setting the oldestVoiceMessageUid value in Oracle Internet Directory to = +oldestVMUid.toString() + failed!
Cause: An error communicating with Oracle Internet Directory. This error is non-fatal, but may reveal more serious Oracle Internet Directory communication problems.

Action: Try the operation again and see whether the condition recurs. Check if the Oracle Internet Directory server is down.

Internal Error: Container Exception encountered in the finally clause: + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString()
Cause: Database down, disk space, or other error after a call has disconnected.

Action: Check disk space and see if database is reachable.

Internal Error: Container Exception encountered while destroying the container: + mailbox + Exception Details: This is the exception + cex1.toString() + This is the

event + ev1.toString();
Cause: Database down or other error.

Action: Check if database is reachable.

Error: Lost connection with Oracle Internet Directory when trying to lookup user-Retrying
Cause: Connection lost with Oracle Internet Directory.

Action: None. The application will automatically retry Oracle Internet Directory connection at the beginning of every call.

Error: Invalid MailBox Number - Null
Cause: The user pressed only the pound key when asked to enter a mailbox number.

Action: None.

Error: Exception caught - Details: + ex.toString() + Event details - + sdev.toString()
Cause: Third party bug was triggered and workaround is being attempted.

Action: None

Error: Exception caught - Details: + stex
Cause: Third party bug was triggered and workaround is being attempted.

Action: None

Error: Lost connection with Oracle Internet Directory when trying to lookup the user - Retrying
Cause: Loss of Oracle Internet Directory connection.

Action: None. The application will automatically retry Oracle Internet Directory connection at the beginning of every call.

Error: Lost connection with Oracle Internet Directory when trying to lookup the user- Retrying
Cause: Loss of Oracle Internet Directory connection.

Action: None. The application will automatically retry Oracle Internet Directory connection at the beginning of every call.

Error: Invalid MailBox Password - Null
Cause: The user pressed only the pound key when prompted for a password.

Action: None.

Error: NamingException - Unable to retrieve e-mail ID for VPIM user. + Exception Details: Exception = + ex.toString();
Cause: Oracle Internet Directory error occurred while looking up a user.

Action: Check the user's Oracle Internet Directory settings.

Error: Null value returned when querying Oracle Internet Directory for the owner of orclUMUser. Cannot proceed further
Cause: The owner field of the Oracle Voicemail & Fax user object is not set.

Action: Set the owner field of the Oracle Voicemail & Fax user object to point to a mail user.

Error: Null value returned when querying Oracle Internet Directory for the mailUser object whose dn = + mailUserDn +. Cannot proceed further.
Cause: The owner field of the Oracle Voicemail & Fax user object is a DN which does not exist in the Oracle Internet Directory server.

Action: Correct the owner field of the Oracle Voicemail & Fax user object.

Error: Null value returned when querying Oracle Internet Directory for the mail user's (dn = + mailUserDn +) orclmailStore attribute. Cannot proceed further.
Cause: The mail user's `orclMailStore` attribute is not set.

Action: Set the mail user's `orclMailStore` attribute.

Error: Null value returned when querying Oracle Internet Directory for the mail user's (dn = + mailUserDn +) targetdn attribute. Cannot proceed further.
Cause: The mail user's `targetdn` attribute is not set or set incorrectly.

Action: Correct the `targetdn` to point to the mail user's corresponding public user.

Error: Null value returned when querying Oracle Internet Directory for the mailStores object (dn = + mailStoreDn +). Cannot proceed further.
Cause: The mail user's `orclMailStore` attribute is a DN which does not exist on the Oracle Internet Directory server.

Action: Correct the mail user's `orclMailStore` attribute.

Error: Null value returned when querying Oracle Internet Directory for the mailStores object's (dn = + mailStoreDn +) orcldbdistinguishedname attribute. Cannot proceed further.
Cause: The mail store `orcldbdistinguishedname` attribute is not set.

Action: Set the mail store `orcldbdistinguishedname` attribute.

Error: Null value returned when querying Oracle Internet Directory for the DBService object (dn = + dbStoreDn +). Cannot proceed further.
Cause: The mail store `orcldbdistinguishedname` attribute is set to a DN which does not exist in the Oracle Internet Directory server.

Action: Correct the mail store object's `orcldbdistinguishedname` attribute.

Error: Null value returned when querying Oracle Internet Directory for the DBService object's (dn = + dbStoreDn +) orcldbglobalname attribute. Cannot proceed further.
Cause: The `DBService` `orcldbglobalname` attribute is not set in Oracle Internet Directory.

Action: Set the `DBService` `orcldbglobalname` attribute.

Error: Lost connection with Oracle Internet Directory while retrieving the mail ID of the VPIMUser - Retrying
Cause: Loss of Oracle Internet Directory connection.

Action: None. The application will automatically retry Oracle Internet Directory connection at the beginning of every call.

Error: Lost connection with Oracle Internet Directory while retrieving the mail ID of the VPIMUser - Retrying
Cause: Loss of Oracle Internet Directory connection.

Action: None. The application will automatically retry Oracle Internet Directory connection at the beginning of every call.

Error: Null value for VPIMMail ID specified in Oracle Internet Directory. Cannot proceed further
Cause: The VPIM mail user's object does not have the `vpimmail` ID set. As this attribute is required by the schema, a severe Oracle Internet Directory corruption has occurred.

Action: Contact Oracle Internet Directory server support.

Error: Invalid vpimmail id - + mailbox + - specified in Oracle Internet Directory. Cannot proceed further
Cause: The VPIM mail user's `vpimmail` ID was altered during the course of the telephone call. Most likely an Oracle Internet Directory corruption.

Action: Contact Oracle Internet Directory server support.

Error: Container Exception. Exception Details: This is the exception +

cex.toString() + This is the event + ev.toString()
Cause: Unknown error authenticating user. Database could be down.

Action: Check database status.

Error: E-mail account specified in Oracle Internet Directory: + hotelman +: does not exist on the e-mail server. Cannot proceed further. + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString();
Cause: E-mail server is missing the user's account.

Action: Make sure that user's account is properly set up in the e-mail server and Oracle Internet Directory.

Error: MsgId is null. Cannot proceed further with the delegation to Recording.
Cause: The message for which a reply or forward is being composed has no message ID.

Action: None.

Error: Mailbox is null. Cannot proceed further with the delegation to Recording.
Cause: A failure to find items in the message header of a message to be forwarded or replied.

Action: None.

Internal Error: Media Bind Exception while doing a delegateToService() to VMRecordingMediaApp. Exception Details: This is the exception + mbe.toString();
Cause: An error delegating to recording for a reply, forward, or new message composed within retrieval.

Action: Make sure that the recording application is running.

Error: Container Exception while setting the OCIPassword parameter on the mailbox: + mailbox + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString();
Cause: Unknown error while changing password.

Action: None.

Error: Error looking up user's Attendant Extension! Cannot release to AttendantMediaApp
Cause: The user's attendant extension cannot be found in Oracle Internet Directory.

Action: Make sure that the attendant extension is set in Oracle Internet Directory under one of the Oracle Voicemail & Fax user's parent Group Profiles.

Error: Error retrieving the user's telephone number., ne
Cause: The user's VPIM user object could not be found. There may have been an Oracle Internet Directory communication error or the owner attribute of the user object may have been incorrectly set.

Action: Make sure that the user's owner object is set to the dn of the mail user / VPIM user. Check that Oracle Internet Directory is available.

Internal Error: Container Exception while setting the unread parameter on the message. + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString();
Cause: Database communication problem or disk space problem while setting the unread flag on a message.

Action: Make sure that the database is accessible and that there is sufficient disk space.

Internal Error: Container Exception while deleting message. + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString()
Cause: Database communication problem or disk space problem while deleting a message.

Action: Make sure that the database is accessible and that there is sufficient disk space.

Internal Error: Container Exception while retrieving the header parameter on the message. Exception Details: This is the exception + cex.toString() + This is the event + ev.toString()
Cause: Database communication problem or disk space problem while obtaining message header information.

Action: Make sure that the database is accessible and that there is sufficient disk space.

Internal Error: Container Exception while destroying the container: + tmpGreetingPath + Exception Details: This is the exception + ce.toString() +This is the event + ev1.toString()
Cause: A data object in CT Media's container subsystem was externally deleted or there is an internal CT Media error.

Action: Check disk space. Reinstall CT Media if the problem persists.

Error: Cannot look up VPIM user
Cause: The user's VPIM user object could not be found. There may have been an Oracle Internet Directory communication error or the owner attribute of the user object may have been incorrectly set.

Action: Make sure that the user's owner object is set to the dn of the mail user or VPIM user. Check that Oracle Internet Directory is available.

Internal Error: Container Exception while creating the SpokenName data object. + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString()
Cause: Disk space or internal CT Media error.

Action: Check disk space. Reinstall CT Media if the problem persists.

Internal Error: Container exception while retrieving the header parameter on the message. + Exception Details: This is the exception + cex.toString() + This is the event + ev.toString()
Cause: There was a database communication problem or disk space problem while obtaining message header information.

Action: Make sure that the database is accessible and that there is sufficient disk space.

Internal Error: Container exception in greeting recording
Cause: There was an error accessing a just-recorded greeting or name. The greeting or name was removed, there is a disk space problem, or there was another CT Media error.

Action: Check disk space. Reboot the server if the problem persists.

Internal Error: Naming exception in greeting recording:
Cause: There was an error storing a just recorded greeting or name in Oracle Internet Directory.

Action: Make sure that the Oracle Internet Directory server is accessible.

Error: Cannot Set User's Password in Oracle Internet Directory + Exception Details: This is the exception + ex.toString();
Cause: There was an error accessing Oracle Internet Directory to store a new password. Oracle Internet Directory maybe down or access control may be may not be configured correctly.

Action: Make sure that the Oracle Internet Directory server is accessible and that permissions are set correctly.

Error: Unexpected MediaResourceException + during message playback or + associated processing
Cause: There was an error with the message playback due to a database connection problem.

Action: Check the database connection.

Attendant Process

Error: Unable to establish Oracle Internet Directory connection
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Error: Can't communicate with Oracle Internet Directory
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Internal Error: Unknown exception caught in + thisClassName +.run()
Cause: Unknown error.

Action: If the problem persists, reboot the system and report the problem.

Internal Error: Reinitialization failed
Cause: Attempting to reinitialize the application after an unknown error failed.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closing
Cause: The application thread is shutting down due to failed reinitialization after an unknown error.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closed
Cause: The application has attempted thread-specific cleanup and will shutdown due to failed initialization after an unknown error.

Action: Reboot the system and report the problem.

Error: Lost connection with Oracle Internet Directory while trying to lookup user - Retrying
Cause: Oracle Internet Directory is down or inaccessible.

Action: None. Application will automatically retry connection.

Error: Naming exception encountered while trying to lookup user
Cause: Oracle Voicemail & Fax is answering calls for users who do not have Oracle Internet Directory entries or who have incorrect Oracle Internet Directory entries.

Action: If the user should be on the system, make sure that the user's VPIM user object has a correct VPIM mail address. If the user should not be on the system, then configure the PBX not to forward that user's calls to Oracle Voicemail & Fax.

Error: No queueing location defined in Oracle Internet Directory
Cause: The application is attempting to queue a message and the message queue location is undefined in Oracle Internet Directory.

Action: Set the message queue location in the appropriate process or instance objects in Oracle Internet Directory.

Error: Unexpected I/O error
Cause: Error outputting a message to the recovery queue.

Action: Check disk space and permissions on the queue directory.

Internal Error: Message file + messageFile + does not exist
Cause: Application error condition.

Action: Restart the machine, check disk space, and report the problem if it persists.

Error: Cannot send message: queueing
Cause: The mail store database is down or inaccessible or there is another problem with message sending.

Action: Make sure the recovery application is running. It will send the message when the database is accessible again. Check the database.

Internal Error: Needed parameter settings are missing
Cause: Oracle Internet Directory process or instance settings which are required for process startup are missing.

Action: Make sure that all Oracle Internet Directory properties required for the application are set in the appropriate process or instance objects.

Error: Error retrieving coder type from Oracle Internet Directory
Cause: The code type stored in a user or greeting Oracle Internet Directory object is incorrectly formatted. It may have been altered.

Action: Correct the formatting of the coder type, and make sure that the default coder types are valid ones.

Error: Fatal error: Cannot create prompt table
Cause: The installation default message localization description string (XML) is poorly formed.

Action: Correct the message localization description string.

Error: Fatal error: Cannot create menu table
Cause: The installation default menu item bindings description string (XML) is poorly formed.

Action: Correct the menu item bindings description string

Error: Fatal error: Unexpected naming exception
Cause: Oracle Internet Directory error while looking up the installation default message localization description string or the installation default menu item bindings description string.

Action: Make sure that a default menu object and a default prompts object exist in Oracle Internet Directory. The immediate children of the installation container in Oracle Internet Directory. The default attributes of both objects should be set to true.

Internal Error: Unexpected exception
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Error refreshing
Cause: The current configuration of the process instance being refreshed is invalid. A setting made since the process instance's last startup is wrong.

Action: Correct the process instance's Oracle Internet Directory settings.

Internal Error: Unexpected exception trying to initialize MediaProvider
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception trying to initialize MediaProvider
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Poorly formatted integer parameter
Cause: A well-formed XML string has an integer parameter value which cannot be parsed as an integer.

Action: Determine from the logs which XML string is causing the problem, and correct it.

Error: Parse exception
Cause: A localized message description string is not formed correctly.

Action: Determine from the logs which string is not formed correctly, and correct it.

Error: Unexpected SAX Exception
Cause: Unexpected error.

Action: Determine from the logs which XML string is being parsed, and make sure the XML string is well formed.

Internal Error: I/O Exception should not ever happen here
Cause: Message should never occur.

Action: Report the problem.

Fax Receiving Process

Error: Unable to establish Oracle Internet Directory connection
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Error: Can't communicate with Oracle Internet Directory
Cause: The Oracle Internet Directory server is inaccessible.

Action: Make sure the Oracle Internet Directory server is accessible.

Internal Error: Unknown exception caught in + thisClassName +.run()
Cause: Unknown error.

Action: If the problem persists, reboot the system and report the problem.

Internal Error: Reinitialization failed: + e2
Cause: Attempting to reinitialize the application after an unknown error failed.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closing
Cause: The application thread is shutting down due to failed reinitialization after an unknown error.

Action: Reboot the system and report the problem.

Internal Error: thisClassName +: closed
Cause: The application has attempted thread-specific cleanup and will shut down due to failed initialization after an unknown error.

Action: Reboot the system and report the problem.

Error: Lost connection with Oracle Internet Directory while trying to lookup user - Retrying
Cause: Oracle Internet Directory is down or inaccessible.

Action: None. Application will automatically retry connection.

Error: a naming exception was encountered while trying to lookup user
Cause: Unified Messaging is answering calls for users who do not have Oracle Internet Directory entries or who have incorrect Oracle Internet Directory entries.

Action: If the user should be on the system, make sure that the user's VPIM user object has a correct VPIM mail address. If the user should not be on the system, then configure the PBX not to forward that user calls to Oracle Voicemail & Fax.

Error: No queueing location defined in Oracle Internet Directory
Cause: The application is attempting to queue a message and the message queue location is undefined in Oracle Internet Directory.

Action: Set the message queue location in the appropriate process.

Error: Unexpected I/O error
Cause: Error outputting a message to the recovery queue.

Action: Check disk space and permissions on the queue directory.

Internal Error: Message file + messageFile + does not exist
Cause: Application error condition.

Action: Restart the machine, check disk space, and report the problem if it persists.

Error: Cannot send message: queueing
Cause: The mail store database is down or inaccessible or there is another problem with message sending.

Action: Make sure the recovery application is running. It will send the message when the database is accessible again. Check the database.

Internal Error: Needed parameter settings are missing.
Cause: Oracle Internet Directory process or instance settings which are required for process startup are missing.

Action: Make sure that all Oracle Internet Directory properties required for the application are set in the appropriate process or instance objects.

Error: Error retrieving coder type from Oracle Internet Directory
Cause: The code type stored in a user or greeting Oracle Internet Directory. The object is incorrectly formatted. It may have been altered.

Action: Correct the formatting of the coder type, and make sure that the default coder types are valid ones.

Error: Fatal error: Can't create prompt table
Cause: The installation default message localization description string (XML) is poorly formed.

Action: Correct the message localization description string.

Error: Fatal error: Cannot create menu table
Cause: The installation default menu item bindings description string (XML) is not formed correctly.

Action: Correct the menu item bindings description string.

Fatal Error: Unexpected NamingException
Cause: Oracle Internet Directory error while looking up the installation default message localization description string or the installation default menu item bindings description string.

Action: Make sure that a default menu object and a default prompts object exist in Oracle Internet Directory as immediate children of the installation container in Oracle Internet Directory. The default attributes of both objects should be set to true.

Internal Error: Unexpected exception
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Error refreshing
Cause: The current configuration of the process instance being refreshed is invalid. A setting made since the process instance's last startup is wrong.

Action: Correct the Oracle Internet Directory process instance settings.

Error: Error in retrieving the signal. Current value = + signals + Event = + sdev
Cause: IT Media or CT Media API error. This message should never occur.

Action: Check disk space, reboot the system, and report the problem if it persists.

Internal Error: Item handler does not exist for + itemTriggered.getName() + in + menuName
Cause: Internal application coding error. This message should never occur.

Action: Edit the menu item bindings configuration string to disable the menu item whose handler is missing.

Error: No AttendantAsi defined! Cannot release to AttendantMediaApp
Cause: The ASI for the attendant application is not defined in the attendant Oracle Internet Directory objects.

Action: Define the attendant ASI in the appropriate Oracle Internet Directory object.

Internal Error: Unexpected MediaBindException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem releasing the call to the attendant application. The attendant application is not running or not enough threads are running.

Action: Make sure the attendant application is running.

Internal Error: Unexpected MediaConfigException when releasing to service + requestor.getAttendantAsi()
Cause: There was a problem reconfiguring the group for hand off to the attendant application. The UMMediaServicesProfile could be configured incorrectly.

Action: Check UMMediaServicesProfile.

Internal Error: Unexpected exception trying to initialize MediaProvider
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception trying to initialize MediaProvider
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Poorly formatted integer parameter: + value
Cause: A well-formed XML string has an integer parameter value which cannot be parsed as an integer.

Action: Determine from the logs which XML string is causing the problem, and correct it.

Error: Parse exception: + errorStream.toString()
Cause: A localized message description string is formed incorrectly.

Action: Determine from the logs which string is formed incorrectly, and correct it.

Error: Unexpected SAXException: + errorStream.toString()
Cause: Unexpected error.

Action: Determine from the logs which XML string is being parsed, and make sure the XML string is well formed.

Internal Error: I/O Exception should not ever happen here
Cause: Message should never occur.

Action: Report the problem.

Error: Cannot process this call further - No call detail information or the cd.to field is null!
Cause: Call detail information is unavailable.

Action: Make sure that the SMDI Monitor, if one exists, is running, and that the PBX integration settings in Oracle Internet Directory are correct.

Error: Oracle Internet Directory is down and installation may be + multi-domain aborting call
Cause: Oracle Internet Directory is down and no default domain is set in the environment.

Action: If the installation encompasses multiple domains, do nothing. If it is a single domain installation, set the default domain parameter in Oracle Internet Directory to be the name of the single domain.

Error: User does not have FaxIn access
Cause: The user to whom a fax is being sent has fax-in access disabled.

Action: If the user should have fax-in access enabled, then enable it.

Internal Error: Fax receive was interrupted. Message in + receivingFile + will not be sent
Cause: An error during fax reception.

Action: Check disk space, and reinstall CT Media if problems persist.

Internal Error: No destination address has been specified. Message in + receivingFile + will not be sent.
Cause: The user did not specify any message recipients.

Action: None.

Error: Fax receiver stopped for unknown reason: qual is null
Cause: CT Media or IT Media API error.

Action: Check disk space and report the problem if it persists.

MWI Service Process

Internal Error: Unexpected exception trying to initialize MediaProvider
Cause: An unexpected error condition with IT Media and CT Media.

Action: Make sure that IT Media is correctly installed.

Error: Unexpected exception trying to initialize MediaProvider
Cause: The CT Server may be down.

Action: Make sure that the CT Server is starting up. Once the server starts up, the application will recover.

Error: Class location URL is not defined. + Cannot export MWIService for activation.
Cause: The class location URL is not set in Oracle Internet Directory.

Action: Set the class location in Oracle Internet Directory.

Error: An I/O error occurred while constructing MarshalledObject
Cause: Insufficient disk space or file system privileges.

Action: Check disk space and privileges.

Error: Error connecting to PBX
Cause: The SMDI Monitor or CT Media MWI session service is unavailable.

Action: Verify that Oracle Internet Directory settings of PBX properties are correct. Verify that the SMDI Monitor, if any, is running. The `MWIService` will automatically reestablish connection.

Error: PBXConnection cannot be created
Cause: The PBX connection type is missing or unrecognized, or the SMDI Monitor host, port, or timeout properties are missing.

Action: Correct all required PBX connection related properties in the appropriate process or instance Oracle Internet Directory object.

AQMWI Process

Error: Unable to register driver manager -- exiting
Cause: The Oracle JDBC classes are not correctly installed.

Action: Reinstall the Oracle JDBC classes.

Error: Error communicating with AQ
Cause: The advanced queue for MWI does not exist, or is unavailable.

Action: Make sure the queue is installed and available.

Error: Error communicating with the database
Cause: The database is unavailable or inaccessible.

Action: Make sure the database is running and is accessible.

Error: Error communicating with Oracle Internet Directory
Cause: An Oracle Internet Directory server connection or authentication error occurred

Action: Make sure that the Oracle Internet Directory server is running. Reset authentication credentials if necessary.

Error: Unexpected Exception
Cause: An unknown error.

Action: None. Reconnection will be attempted.

Error: Unable to reconnect
Cause: An error establishing a connection after an unknown error.

Action: None. Reconnection will be attempted every 60 seconds.

Error: Unexpected ClassNotFoundException
Cause: The class `oracle.AQ.AQOracleDriver` cannot be found.

Action: Make sure that Oracle AQ classes are installed.

Error: Remote exception occurred while looking up the MWIService
Cause: A RMI registry could not be located at the host and port number of the RMI URL set in Oracle Internet Directory.

Action: Make sure that an `rmiregistry` is running at the host and port number of the RMI URL set in Oracle Internet Directory.

Error: A URL exception was not formed correctly while looking up the MWI service
Cause: The URL of the `MWIService` set in Oracle Internet Directory under the MWI service process or instance object is not formed correctly.

Action: Correct the `MWIService` URL.

Error: A NotBoundException occurred while looking up MWI service
Cause: The `MWIService` is not registered at the expected URL.

Action: Make sure that an `MWIService` is running at the location set in Oracle Internet Directory under the `MWIService` process or instance object.

A

Oracle Voicemail & Fax Access Control Lists

This section provides an overview of access control list policies set for the telephony and wireless server components of Oracle Voicemail & Fax in Oracle Internet Directory. These directory access control lists are set in Oracle Internet Directory during the infrastructure installation phase.

This appendix contains the following topic:

- Telephony Process Access Control Lists

Telephony Process Access Control Lists

> **See Also:** *Oracle Internet Directory Administrator's Guide* for more information access control lists

The Oracle Voicemail & Fax LDAP schema and entries are installed during the installation of Oracle Internet Directory.

The `UMContainer` created under the products container stores Oracle Voicemail & Fax user and installation specific information.

The `UMContainer` and `EmailserverContainer` directory information trees because Oracle Voicemail & Fax user information is spread over both directory information trees. To achieve grant access for both directory information trees, a privilege group (`AdminsGroup`) is created both under the `EmailServerContainer` and `UMContainer`, with appropriate access control lists applied.

The `UMAdminsGroup` is a privilege group created to access the `UMContainer` directory information tree. Members of this group include the creator, `UMContainer`, and `EMailAdminsGroup`.

The `EmailAdminsGroup` must be created before the `UMAdminsGroup`. After the `UMAdminsGroup` is created, it becomes a member of the `EmailAdminsGroup`, enabling the Oracle Voicemail & Fax applications to access both containers.

The following access control lists are applied to the `UMContainer` to give applications access to the `UMContainer` and `EMailContainer`.

- The access control list for the group `cn=iASAdmins,cn=Groups,%s_OracleContextDN%` has browse, add, delete and proxy permissions. This is required for the `iasadmins` to be able to do a proxy to the `UMContainer`.

- The access control list for the group `cn=UMAdminsGroup,cn=UMContainer,cn=Products,%s_OracleContextDN%` has browse, add, and delete permissions.

- The access control list for `dn=*,cn=EMailServerContainer,cn=Products,%s_OracleContextDN%` has browse, add, delete, and proxy permissions.

> **Note:** The %s_OracleContextDN% can be the root or the subscriber OracleContext.

Oracle Internet Directory Group Membership for `UMAdminsGroup`

The following table documents the group and permissions for the
UMAdminsGroup:

Group	Permissions
cn=ComputerAdmins cn=Groups,%s_OracleContextDN%	The addition of UMAdminsGroup to this group enables the Oracle Voicemail & Fax applications to create and access process entries under cn=Computers.
cn=UserProxyPrivilege cn=Groups,%s_OracleContextDN%	The addition of UMAdminsGroup to this group enables the Oracle Voicemail & Fax applications to proxy as the end user.

The addition of the `UMAdminsGroup` to the following group enables the Oracle Voicemail & Fax applications to create and access process entries under `cn=Computers`:

```
cn=ComputerAdmins, cn=Groups,%s_OracleContextDN%
```

The addition of `UMAdminsGroup` to the following group enables the Oracle Voicemail & Fax applications to do a proxy as the end users:

```
cn=UserProxyPrivilege, cn=Groups,%s_OracleContextDN%
```

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