

# **Oracle® WebCenter Content Service for Documentum**

Installation and Upgrade Guide

10g Release 3 (10.3)

November 2008

**ORACLE®**

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# Welcome

Oracle WebCenter Content Service for Documentum enables you to include Documentum content in your portal from repositories inside or outside your network. Portal administrators can then create remote content sources and remote content crawlers that access Documentum files.

## How to Use This Book

This book describes how to install and deploy Oracle WebCenter Content Service for Documentum 10.3. It also provides instructions for upgrading to Oracle WebCenter Content Service for Documentum 10.3 (and any maintenance packs) from earlier versions.

## Audience

This guide is written for the user responsible for installing or upgrading Oracle WebCenter Content Service for Documentum. This user must have an understanding of the existing portal deployment, knowledge of how to administer objects in the portal, and knowledge of the security required for your Documentum system.

## Organization

This guide includes the following chapters:

- This chapter provides information on how to use this guide and describes other resources available to help install, deploy, upgrade, and administer Oracle WebCenter Content Service for Documentum.
- [Chapter 2, “Pre-Installation Procedures,”](#) provides hardware and software requirements, as well as environmental and third-party software prerequisites. You must read this chapter and meet the prerequisites prior to proceeding to the installation or upgrade.
- [Chapter 3, “Installing Oracle WebCenter Content Service for Documentum,”](#) provides detailed instructions for installing and configuring Oracle WebCenter Content Service for Documentum.
- [Chapter 4, “Configuring Oracle WebCenter Content Service for Documentum,”](#) provides detailed instructions for importing, configuring, and creating Oracle WebCenter Content Service for Documentum objects in the portal.
- [Chapter 5, “Upgrading Oracle WebCenter Content Service for Documentum,”](#) provides detailed instructions for upgrading to Oracle WebCenter Content Service for Documentum 10.3.
- [Chapter 6, “Troubleshooting,”](#) provides common troubleshooting issues and solutions.
- [Chapter 7, “Advanced Configuration: Tuning Documentum Server,”](#) provides detailed instructions on configuring Documentum for use with Oracle WebCenter Content Service for Documentum.

# Typographical Conventions

This book uses the following typographical conventions.

**Table 1-1 Typographical Conventions**

Convention	Typeface	Examples/Notes
<ul style="list-style-type: none"> <li>Items you need to take action on (such as files or screen elements)</li> </ul>	<b>bold</b>	<ul style="list-style-type: none"> <li>Upload <b>Procedures.doc</b> to the portal.</li> <li>To save your changes, click <b>Apply Changes</b>.</li> </ul>
<ul style="list-style-type: none"> <li>User-defined variables</li> <li>New terms</li> <li>Emphasis</li> <li>Object example names</li> </ul>	<i>italic</i>	<ul style="list-style-type: none"> <li>The migration package file is located in <i>install_dir</i>\serverpackages.</li> <li><i>Portlets</i> are Web tools embedded in your portal.</li> <li>The URI <i>must</i> be a unique number.</li> <li>The example Knowledge Directory displayed in Figure 5 shows the <i>Human Resources</i> folder.</li> </ul>
<ul style="list-style-type: none"> <li>Text you enter</li> <li>Computer generated text (such as error messages)</li> <li>Code samples</li> </ul>	<code>computer</code>	<ul style="list-style-type: none"> <li>Type <code>Marketing</code> as the name of your community.</li> <li>This script may generate the following error: <code>ORA-00942 table or view does not exist</code></li> <li>Example: <pre>&lt;setting name="SSOCookieIsSecure"&gt;   &lt;value     xsi:type="xsd:integer"&gt;0&lt;/value&gt; &lt;/setting&gt;</pre></li> </ul>
<ul style="list-style-type: none"> <li>Environment variables</li> </ul>	<code>ALL_CAPS</code>	<ul style="list-style-type: none"> <li><code>ORACLE_HOME</code> specifies the directory where Oracle products are installed.</li> </ul>

# Oracle Documentation and Resources

This section describes other documentation and resources provided by Oracle.

**Table 1-2 Oracle Documentation and Resources**

Resource	Description
Release Notes	<p>The release notes provide information about new features, issues addressed, and known issues in the release.</p> <p>They are available on the Oracle Technology Network at <a href="http://download.oracle.com/docs/cd/E13158_01/alui/integration/documentumcs/docs/103/sitemap.html">http://download.oracle.com/docs/cd/E13158_01/alui/integration/documentumcs/docs/103/sitemap.html</a>.</p>
Online Help	<p>The online help is written for all levels of Oracle WebCenter Content Service for Documentum users. It describes the user interface for Oracle WebCenter Content Service for Documentum and gives detailed instructions for completing tasks in Oracle WebCenter Content Service for Documentum.</p> <p>To access online help, click the help icon.</p>
Oracle Technology Network (OTN)	<p>The Oracle Technology Network is the world's largest community of developers, DBAs, and architects using Oracle products and industry-standard technologies. Every day, members collaborate via OTN to share real-world insight, expertise, and best practices on how to build, deploy, manage, and optimize applications.</p> <p>As a member of the Oracle Technology Network you will enjoy access to software downloads, discussion forums, documentation, wikis, podcasts, blogs, plus much more.</p> <p>Access the Oracle Technology Network at <a href="http://www.oracle.com/technology/index.html">http://www.oracle.com/technology/index.html</a>.</p>
Oracle Support	<p>The Oracle Support site provides access to all Oracle support resources including online support, software and patches, technical articles, and contact numbers.</p> <p>Access the Oracle Support site at <a href="http://www.oracle.com/support/index.html">http://www.oracle.com/support/index.html</a>.</p>

# Pre-Installation Procedures

This section describes the following pre-installation steps that ensure successful installation:

1. Download the most up-to-date documentation from the Oracle Technology Network at [http://download.oracle.com/docs/cd/E13158\\_01/alui/integration/documentumcs/docs103/sitemap.html](http://download.oracle.com/docs/cd/E13158_01/alui/integration/documentumcs/docs103/sitemap.html).
2. Read the product release notes for information on compatibility issues, known problems, and workarounds that might affect how you proceed with your deployment. Release notes are located at the top-level directory of the product package.
3. Provision host computers for your deployment and install prerequisite software. For details, see “[Ensuring Component Version Compatibility](#)” on page 2-2.
4. Install the Documentum DFC Runtime Environment. For details, see “[Configuring the Documentum DFC Runtime Environment](#)” on page 2-3.
5. For installation on UNIX and Linux hosts, create the installation directory and the ALI user and group. For details, see “[Setting Up User and Group Accounts \(UNIX and Linux\)](#)” on page 2-5.
6. For installation on UNIX and Linux hosts, grant user and group access rights to Oracle Inventory directories. For details, see “[Granting User and Group Access Rights to Oracle Inventory Directories \(UNIX and Linux\)](#)” on page 2-5.

## Ensuring Component Version Compatibility

**Note:** For the most up-to-date list of supported software for your deployment, refer to the Interoperability page in the Product Center at <http://one.bea.com/support>.

The following table summarizes hardware and software requirements for the components you deploy with this product.

**Caution:** IPv6 is not supported. You should verify that IPv6 is not enabled prior to installing this product.

**Table 2-1 Hardware and Software Requirements**

Component	Requirement
Oracle WebCenter Content Service for Documentum Host Computer	<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>• 512 MB RAM</li> <li>• 128 MB disk space</li> </ul> <p><b>Operating System</b></p> <ul style="list-style-type: none"> <li>• AIX 5.3, on POWER3, POWER4, POWER5</li> <li>• Red Hat Enterprise Linux 4 Update 3, on x86</li> <li>• Microsoft Windows 2003 Server SP1 or R2, on x86</li> <li>• Solaris 8, 9, and 10, on SPARC</li> <li>• SUSE Enterprise Linux 9, on x86</li> </ul>
Documentum Content Server	Documentum Content Server 5.2.5, 5.3
Network	<p>You must be able to configure communication between the Remote Server, the portal, and Documentum Content Server.</p> <p>If the Documentum Content Server is located on a computer outside of the portal and remote server domain, you must configure trust relations between domains.</p>
Portal Software	Oracle WebCenter Interaction 10.3
Client Browser	<ul style="list-style-type: none"> <li>• Firefox 1.0, 1.5, 2.0</li> <li>• Internet Explorer 6.0, 7.0</li> <li>• Netscape 7.2, 8.0</li> <li>• Safari 1.3, 2.0</li> </ul>

# Configuring the Documentum DFC Runtime Environment

Before you install Oracle WebCenter Content Service for Documentum software on the Remote Server host computer, install the Documentum DFC Runtime Environment. For details on installation of Documentum products, refer to Documentum documentation.

After you install the Documentum Desktop Client on the Remote Server host computer, configure the **dmcl.ini** file for the client as follows:

- Set the host to the docbroker that will be used by all users of this Remote Server. To allow more than one docbroker, you must install a Remote Server for each docbroker.

```
[DOCBROKER_PRIMARY]
host = YOURDOCBROKER
```

- Set your max session count to a value comfortably above the number of sessions you expect to be opened by the Oracle WebCenter Content Service for Documentum content Web services (1 connection per user per content Web service) but comfortably within this machine's performance limitations and well below the maximum number of concurrent sessions allowed by your Documentum server. For more information, refer to [Chapter 7, “Advanced Configuration: Tuning Documentum Server.”](#)

```
[DMAPI_CONFIGURATION]
cache_query = T
connect_pooling_enabled=T
connect_recycle_interval=100
max_session_count=
Docbroker_search_order=RANDOM
```

## Additional Step for UNIX and Linux Hosts

Ensure you have set environment variables for any user who uses this DFC instance by adding them to the Java application server startup file:

- **DOCUMENTUM**: refer to the DFC Installation Guide.
- **DOCUMENT\_SHARED**: refer to the DFC Installation Guide.
- **CLASSPATH**: include full path to dfc.jar, dcm.jar, and \$DOCUMENTUM\_SHARED/config. For example:

## Pre-Installation Procedures

```
export
CLASSPATH=$CLASSPATH:/user/DFC/dfc.jar:$DOCUMENTUM_SHARED/dctm.jar:$DOCUMENTUM_SHARED/config
```

- **LD\_LIBRARY\_PATH** (Solaris and Linux): include the full path to the dfc directory under the Documentum DFC program root. Add the full path to the dfc directory to LD\_LIBRARY\_PATH. For example

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/<documentum dfc program root>/dfc
```

- **LIBPATH** (AIX): include the full path to the dfc directory under the Documentum DFC program root. Add the full path to the dfc directory to LIBPATH. For example:

```
export LIBPATH=$LIBPATH:/<documentum dfc program root>/dfc
```

- **PATH**: enter the full path to the installation directory.
- **DMCL\_CONFIG**: enter the path to a **dmcl.ini** file. For example:

```
export DMCL_CONFIG=/user/DFC/dmcl.ini
```

**Note:** We strongly recommend that you set the DMCL\_CONFIG system variable on the Remote Server to ensure that the Oracle WebCenter Content Service for Documentum can communicate with the Documentum server. The DMCL\_CONFIG value should be the path to the dmcl.ini file. See the installation guide for Documentum DFC Runtime Environment for additional details.

## Setting Up User and Group Accounts (UNIX and Linux)

If you are installing an Oracle WebCenter Interaction product on a UNIX or Linux host computer for the first time, set up an ALI user group and account on the Remote Server host.

For local authentication, perform the following steps on the Remote Server host; for network authentication, perform these steps in LDAP or NIS:

1. Verify there is sufficient disk space for the application to install.
2. Create the local ALI group (ALI\_GROUP), the local ALI user (ALI\_USER), and its home directory (PT\_HOME).
3. Type `chown -R $PT_USER:$PT_GROUP $PT_HOME`.
4. Type `chmod -R 770 $PT_HOME`.
5. Log in to the host as root and type the following:

```
mkdir -p /etc/plumtree
chgrp $ALI_GROUP /etc/plumtree
chmod -R 770 /etc/plumtree
mkdir -p /tmp/plumtree
chmod -R 777 /tmp/plumtree
```

6. If the file `/etc/plumtree/ptreg.xml` exists, type the following:

```
chmod 660 /etc/plumtree/ptreg.xml
chgrp $ALI_GROUP /etc/plumtree/ptreg.xml
```

## Granting User and Group Access Rights to Oracle Inventory Directories (UNIX and Linux)

Oracle Inventory contains files that provide the Oracle Universal Installer with the locations of the ORACLE\_HOME directories on a particular machine. For Oracle Inventory to function properly, the user that installs Oracle WebCenter Analytics must have access rights to the directories that contain Oracle Inventory's files. This section describes how to run the **ouais.sh** shell script, which sets user and group access rights for these directories.

**Note:** You do not need to perform this procedure if you are installing Oracle WebCenter Content Service for Documentum on Windows.

**Note:** If you are installing Oracle WebCenter Content Service for Documentum on Linux or UNIX operating systems, you do not need to perform this procedure if, *as the same user that is installing Oracle WebCenter Content Service for Documentum*, you have already installed at least one of the following products *on the same machine* on which you are installing Oracle WebCenter Content Service for Documentum:

- Oracle WebCenter Interaction 10.3
- Oracle WebCenter Analytics 10.3
- Oracle WebCenter Collaboration 10.3
- Oracle WebCenter Ensemble 10.3
- Oracle WSRP Consumer 10.3
- Oracle WebCenter Interaction Identity Service for LDAP 10.3

To grant user and group access rights to Oracle Inventory directories:

1. Log in to the remote server host computer as the root user.
2. Copy the **ouais.sh** script to the machine onto which you will be installing Oracle WebCenter Content Service for Documentum.

This script is located in the same location as the Oracle WebCenter Content Service for Documentum installer file.

3. Change the current directory (`cd`) to be the directory to which you copied the `ouais.sh` script.
4. Run the **ouais.sh** shell script.

As arguments to the script, specify the user and group that will be running the Oracle WebCenter Content Service for Documentum installer. For example, you would use the following command to run the `ouais.sh` script from the root shell:

```
./ouais.sh -u <oracleuser> -g <oraclegroup>
```

The `ouais.sh` script creates the Oracle Inventory directory if it did not exist before you ran the script. Additionally, the script grants user and group ownership to the directories that contain the files that are used by Oracle Inventory.

# Installing Oracle WebCenter Content Service for Documentum

This chapter describes how to install Oracle WebCenter Content Service for Documentum. The instructions are the same for Windows, UNIX, and Linux platforms, except where noted. To install Oracle WebCenter Content Service for Documentum:

1. Ensure that you have performed pre-installation procedures. For more information, see [Chapter 2, “Pre-Installation Procedures.”](#)
2. Install product files on the Oracle WebCenter Content Service for Documentum host computer and the Image Service host computer. For more information, see [Chapter 3, “Installing Oracle WebCenter Content Service for Documentum.”](#)
3. Complete the post-installation procedures. For more information, see [Chapter 4, “Configuring Oracle WebCenter Content Service for Documentum.”](#)

## Installation Procedure

Oracle WebCenter Content Service for Documentum is implemented as a remote server in the context of the portal deployment.

To install product files:

1. Log in to the Oracle WebCenter Content Service for Documentum host computer using an administrator account that has access to the portal installation.

Alternatively, log in to any host using an administrator account that has access to the Oracle WebCenter Content Service for Documentum host and the portal installation.

2. Map a connection to the top-level folder for the portal installation.

3. Copy the installation package to a location on the Oracle WebCenter Content Service for Documentum host.
4. To launch the installer, click the **ALIContentServiceDocumentum\_v5-5.exe** (Windows) or **ALIContentServiceDocumentum\_v5-5** (UNIX and Linux) file.

**Note:** For UNIX and Linux installations, you must run the Oracle WebCenter Content Service for Documentum installer as the user that you specified in the procedure [“Granting User and Group Access Rights to Oracle Inventory Directories \(UNIX and Linux\)” on page 2-5](#). You specified a user who will run the product installer as an argument to the ouais.sh script.

5. Complete installation wizard pages as described in the following table.

**Note:** To facilitate any troubleshooting that might be required, as well as communication among IT staff and customer support, we recommend that you keep the default settings.

**Table 3-1 Installation Wizard Pages**

Wizard Page	Description
Introduction	Click <b>Next</b> .
Choose Components	<ul style="list-style-type: none"> <li>• Choose <b>Content Service for Documentum</b> to install the Oracle WebCenter Content Service for Documentum application files.</li> <li>• Choose <b>Image Service Files</b> to install Oracle WebCenter Content Service for Documentum files for the Image Service.</li> </ul> <p>Then click <b>Install</b>.</p>
Installation Folder	<p>Click <b>Next</b> to accept the default value:</p> <ul style="list-style-type: none"> <li>– On <b>Unix</b> and <b>Linux</b>: <b>/opt/bea/alui</b></li> <li>– On <b>Windows</b>: <b>C:\bea\alui</b></li> </ul>
Specify Image Service Folder	<p>Click <b>Choose</b> and then browse to and select the <b>ptimages</b> directory on the Image Service host computer. The default is:</p> <ul style="list-style-type: none"> <li>– On <b>Unix</b> and <b>Linux</b>: <b>/opt/bea/alui/ptimages</b></li> <li>– On <b>Windows</b>: <b>C:\bea\alui\ptimages</b></li> </ul> <p><b>Note:</b> This panel only appears when installing Image Service files. If you are not installing Image Service files, you will need to run the installer on the Image Service host computer to install the Image Service files.</p>

**Table 3-1 Installation Wizard Pages**

Wizard Page	Description
Application Port	Specify the port that Oracle WebCenter Content Service for Documentum should use to handle requests. Indicate whether this should be HTTP or HTTPS. The default port is 11951.
Documentum Client Library	Type the full path to your Documentum Client Library. <ul style="list-style-type: none"> <li>– For <b>Unix</b> and <b>Linux</b>, this is the path to dfcbase.jar.</li> <li>– For <b>Windows</b>, this is the path to dctm.jar.</li> </ul>
Documentum config folder	Type the full path to your Documentum config folder.
Documentum shared folder	Type the full path to your Documentum shared folder.
Pre-Installation Summary	Verify the information in the panel and click <b>Install</b> .
Install Complete	The installation is complete. Click <b>Done</b> to finish.

- Complete the steps on the **Content Service for Documentum Installation Verification** page. This page is located on your Oracle WebCenter Content Service for Documentum host computer, at <http://<RemoteServer>:<port>/dctmcws/web/install/index.html>. The Oracle WebCenter Content Service for Documentum must be running prior to navigating to this page. For details on starting the Oracle WebCenter Content Service for Documentum, see the following section, “[Starting and Stopping the BEA ALI Content Service for Documentum](#)” on page 3-3.

## Starting and Stopping the BEA ALI Content Service for Documentum

### To Start the Service in Windows

From the Service Control Manager, start the BEA ALI Content Service for Documentum.

Or, from the command line, run:

```
$ <install base>\ptdctmcws\10.3\bin\ptdctmcsd.bat start
```

## To Start the Service in UNIX and Linux

From the command line, run:

```
$ .<PT_HOME>/pthome.sh  
$ sh <install base>/ptdctmcws/5.5/bin/ptdctmcsd.sh start
```

**Caution:** If your PT\_HOME is a directory other than /opt/bea/alui, you will need to edit the file <PT\_HOME>/pthome.sh so that PT\_HOME is set to the correct value.

## To Stop the Service in Windows

From the Service Control Manager, stop the BEA ALI Content Service for Documentum.

Or, from the command line, run:

```
$ <install base>\ptdctmcws\10.3\bin\ptdctmcsd.bat stop
```

## To Stop the Service in UNIX and Linux

From the command line, run

```
$ sh <install base>/ptdctmcws/5.5/bin/ptdctmcsd.sh stop
```

## Installing Oracle WebCenter Content Service for Documentum

# Configuring Oracle WebCenter Content Service for Documentum

After you have run the installation wizard and verified correct installation, you must import, configure, and create Oracle WebCenter Content Service for Documentum objects in the portal. This section includes the following topics:

- [“Importing, Configuring and Creating Documentum CS Objects” on page 4-2](#)
- [“Configuring Security for Document Discovery” on page 4-4](#)
- [“Configuring Security for Document Discovery” on page 4-4](#)
- [“Configuring Security for Document Access” on page 4-6](#)
- [“Setting the Preferred Document Rendition” on page 4-11](#)

## Importing, Configuring and Creating Documentum CS Objects

Complete the following steps to import, configure, and create Oracle WebCenter Content Service for Documentum objects in the portal:

1. Import the remote server and content Web service. For details, see [“Importing the Remote Server and Content Web Service” on page 4-2](#)
2. Map Oracle WebCenter Content Service for Documentum file types. For details, see [“Mapping File Types” on page 4-3](#).
3. Create a content source. For details, see [“Creating a Content Source” on page 4-3](#).
4. Create a content crawler. For details, see [“Creating a Content Crawler” on page 4-4](#).
5. Create a job. For details, see [“Creating a Content Crawler” on page 4-4](#).

### Importing the Remote Server and Content Web Service

Import the Oracle WebCenter Content Service for Documentum remote server and content Web service into the portal using the Object Migration utility:

1. On the computer that hosts the portal application, map or mount a network drive connection to the Oracle WebCenter Content Service for Documentum host computer or copy files to an accessible directory.
2. Log in to your portal as an administrator.
3. Click **Administration**.
4. From the Select Utility menu, select **Migration - Import**.
5. Browse to the migration package. If you accepted installation defaults, the location is:  
\\<RemoteServer>\bea\alui\ptdctmcws\10.3.0\serverpackages\DocumentumCS.ptc
6. Click **Load Package**.
7. Select **Overwrite Remote Servers**.
8. Click **Finish**.

Stay logged in to the portal for the next procedure.

## Mapping File Types

To map Documentum file types to portal file types, import the Documentum content types into the portal using the Object Migration utility:

1. From the Select Utility menu, select **Migration - Import**.
2. Browse to the migration package. If you accepted installation defaults, the location is:  
`\\<RemoteServer>\bea\alui\ptdctmcws\10.3.0\serverpackages\GlobalDocumentTypeMapDocumentum.pte`
3. Click **Load Package**.
4. Click **Finish**.

Stay logged in to the portal for the next procedure.

## Creating a Content Source

Create a content source to define the area of Documentum from which you want to import content. To create a content source, perform the following steps in the Oracle WebCenter Content Service for Documentum folder in the portal's Administrative Object Directory:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Open the **Oracle WebCenter Content Service for Documentum** folder.
4. From the Create Object menu, select **Content Source - Remote**.
5. In the Choose Web Service dialog box, choose the **Oracle WebCenter Content Service for Documentum** Web service.
6. Configure the content source as described in the online help.

Stay logged in to the portal with the Oracle WebCenter Content Service for Documentum folder open for the next procedure.

## Creating a Content Crawler

Create a content crawler to import content from the content source. To create a content crawler, perform the following steps in the Oracle WebCenter Content Service for Documentum folder of the portal's Administrative Object Directory:

1. From the Create Object menu, select **Content Crawler - Remote**.
2. In the Choose Content Source dialog box, choose the content source that you created in the previous procedure.
3. On the Main Settings page of the Content Crawler Editor, select **Import security with each document**. Configure the rest of the content crawler as described in the online help.

Stay logged in to the portal with the Oracle WebCenter Content Service for Documentum folder open for the next procedure.

## Creating a Job

To import content, you must associate the content crawler with a job and run the job. To create and run a job, perform the following steps in the Oracle WebCenter Content Service for Documentum folder of the portal's Administrative Object Directory:

1. From the Create Object menu, select **Job**.
2. Click  **Add Operation**.
3. Choose the content crawler that you created in the previous procedure.
4. Choose the scheduling values for the job and click **Finish**.
5. Name the job and click **OK**.
6. When you are finished creating the job, make sure the Oracle WebCenter Content Service for Documentum folder is associated with an automation service. For assistance, see the online help under **Select Utilities | Automation Service**.

## Configuring Security for Document Discovery

Portal users discover documents by browsing the Knowledge Directory and using portal search tools. In the portal, you manage document discovery with access control lists (ACLs) that are associated with portal directories.

If you want Documentum users to be able to browse records for crawled Documentum records in the portal with a similar level of privilege they experience in the Documentum environment, you map the configuration for Documentum user privileges to the portal ACL Read privilege and make sure their credentials are used for document *access*.

**Note:** You manage document *discovery* (display a record) as described in the following procedure. You manage document *access* (open a file) with click-through security, described in “[Configuring Security for Document Access](#)” on page 4-6.

To configure security settings for the Oracle WebCenter Content Service for Documentum:

1. Deploy an authentication source (for example, LDAP) to manage Documentum users. For details, refer to Documentum documentation.
2. Create a remote authentication source in the portal to import the Documentum users. For details, refer to the portal’s online help or the *Administrator Guide for Oracle WebCenter Interaction*.
3. Configure the Global ACL Sync Map to associate the Documentum domain name with the authentication source:
  - a. Log in to the portal as an administrator.
  - b. Click **Administration**.
  - c. From the Select Utility menu, select **Global ACL Sync Map**.
  - d. Click  **Add Mapping** and choose the authentication source you created in step 2.
  - e. In the **Domain Name** column, click  and type the domain name of the Documentum users, usually the Lotus Domino Server name.
  - f. Click **Finish**.

4. Set the **accessLevelMapping** setting in **config.xml** as follows.

**Table 4-1 accessLevelMapping Settings**

Setting	Description
<code>&lt;accessLevelMapping&gt;2&lt;/accessLevelMapping&gt;</code>	This is the default value and recommended value. This value enables portal document discovery for Documentum users with at least Browse access (Documentum Level 2 privilege).
<code>&lt;accessLevelMapping&gt;3&lt;/accessLevelMapping&gt;</code>	This value restricts portal document discovery to Documentum users that have at least Read access (Documentum Level 3 privilege).

5. If you modify **config.xml**, you must restart the Web application server to initialize changes.

**Note:** If you modified the `accessLevelMapping`, you must rerun crawl jobs with **Refresh ACLs** selected on the Advanced Settings page of the Crawler Editor to realize the changes.

Stay logged in to the portal for the next procedure.

## Configuring Security for Document Access

To enable portal users to open files imported into the portal, you configure *click-through security*. The following table describes click-through security methods.

**Table 4-2 Click-Through Security Methods**

Click-Through Security Method	Description and Procedure
User Preferences	<p>User Preferences is the default click-through security method for Oracle WebCenter Content Service for Documentum. The User Preferences method uses stored values for the Documentum user to enable access to the Documentum file.</p> <p>To implement the User Preferences method, in the Oracle WebCenter Content Service for Documentum <b>config.xml</b> file (located by default in <b>C:\bea\alui\ptdctmcws\10.3.0\settings\config</b>), set <b>clickthroughAuthType</b> as follows:</p> <pre data-bbox="521 652 1157 678">&lt;clickthroughAuthType&gt;1&lt;/clickthroughAuthType&gt;</pre> <p>When users click through to a Documentum file for the first time, they are prompted for their Documentum credentials. The portal stores the credentials as user preferences, so the user does not have to enter them again. Users can modify the values of these credentials by clicking <b>My Account   Oracle WebCenter Content Service for Documentum</b>.</p>

**Table 4-2 Click-Through Security Methods**

<p>Basic Authentication</p>	<p>Basic Authentication is one of two SSO click-through security methods you can implement for Oracle WebCenter Content Service for Documentum. It uses the authentication information for the user portal session to enable access to the Oracle WebCenter Content Service for Documentum file. The portal user name must match the Documentum user name; so the portal and Documentum users must be synchronized from a common source, such as LDAP.</p> <p><b>Note:</b> If you deploy this method, users must log in to the portal with both their user name and password. They cannot choose the Remember My Password option</p> <p>To enable Basic Authentication click-through:          Disable User Preference click-through in the portal:</p> <ol style="list-style-type: none"> <li>1. In the portal's Administrative Object Directory, open the <b>Oracle WebCenter Content Service for Documentum</b> folder.</li> <li>2. Expand the Web Service section and click the <b>Oracle WebCenter Content Service for Documentum</b> Web service.</li> <li>3. On the left, under Edit Object Settings, click <b>Advanced URL Settings</b>.</li> <li>4. Remove the entry from the <b>User Configuration URL</b> box.</li> <li>5. On the left, under Edit Object Settings, click <b>Preferences</b>.</li> <li>6. Delete all User Preferences and click <b>Finish</b>.</li> </ol> <p>Stay logged in to the portal with the Oracle WebCenter Content Service for Documentum folder open for the next procedure.</p> <p>Enable Basic Authentication in the portal:</p> <ol style="list-style-type: none"> <li>1. In the portal <b>PTConfig.xml</b> file, set the <b>CaptureBasicAuthenticationForPortlets</b> parameter to <b>1</b>.</li> <li>2. In the Oracle WebCenter Content Service for Documentum folder of the portal's Administrative Object Directory, click the <b>Oracle WebCenter Content Service for Documentum</b> Web service.</li> <li>3. On the left, under Edit Object Settings, click <b>Authentication Settings</b>.</li> <li>4. Select <b>User's Basic Authentication Information</b>.</li> <li>5. Restart the portal application server.</li> </ol> <p>Enable Basic Authentication click-through on the Oracle WebCenter Content Service for Documentum host computer:</p> <ol style="list-style-type: none"> <li>1. In the Oracle WebCenter Content Service for Documentum <b>config.xml</b> file (located by default in <b>C:\bea\alui\ptdctmews\10.3.0\settings\config</b>), set <b>clickthroughAuthType</b> as follows:</li> </ol> <pre>&lt;clickthroughAuthType&gt;2&lt;/clickthroughAuthType&gt;</pre>
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**Table 4-2 Click-Through Security Methods**

<p>Trusted Authentication</p>	<p>Trusted Authentication is one of two SSO click-through security methods you can implement for Oracle WebCenter Content Service for Documentum. It uses the authentication information from an SSO partner to enable access to the Documentum file. The portal user name must match the Documentum user name; so the portal and Documentum users must be synchronized from a common source, such as LDAP.</p> <p>To enable Trusted Authentication click-through:</p> <p>Disable User Preference click-through in the portal:</p> <ol style="list-style-type: none"> <li>1. In the portal’s Administrative Object Directory, open the <b>Oracle WebCenter Content Service for Documentum</b> folder.</li> <li>2. Expand the Web Service section and click the <b>Oracle WebCenter Content Service for Documentum</b> Web service.</li> <li>3. On the left, under Edit Object Settings, click <b>Advanced URL Settings</b>.</li> <li>4. Remove the entry from the <b>User Configuration URL</b> box.</li> <li>5. On the left, under Edit Object Settings, click <b>Preferences</b>.</li> <li>6. Delete all User Preferences and click <b>Finish</b>.</li> </ol> <p>Stay logged in to the portal with the Oracle WebCenter Content Service for Documentum folder open for the next procedure.</p> <p>Enable Trusted Authentication click-through on the Oracle WebCenter Content Service for Documentum host computer:</p> <ol style="list-style-type: none"> <li>1. In the Oracle WebCenter Content Service for Documentum <b>config.xml</b> file (located by default in <b>C:\bea\alui\ptdctmcws\10.3.0\settings\config</b>), set <b>clickthroughAuthType</b> as follows: <pre>&lt;clickthroughAuthType&gt;3&lt;/clickthroughAuthType&gt;</pre> </li> <li>2. In config.xml file, specify the following parameters for the SSO partner: <pre>&lt;trustedUserName&gt;&lt;/trustedUserName&gt; &lt;trustedPassword&gt;&lt;/trustedPassword&gt; &lt;trustedDomain&gt;&lt;/trustedDomain&gt;</pre> </li> </ol> <p><b>Note:</b> The value for the &lt;trustedPassword&gt; parameter must be encrypted. Use the “Encrypt Password” link located at: <a href="http://&lt;remoteserver&gt;:&lt;port&gt;/dctmcws/web/install/index.html">http://&lt;remoteserver&gt;:&lt;port&gt;/dctmcws/web/install/index.html</a></p>
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**Table 4-2 Click-Through Security Methods**

<p>Admin Preference/Content Source Credential</p>	<p>If you prefer, you can set all click-through requests to use the credentials configured in the content source to retrieve documents upon click-through. This is referred to as the Super User click-through method.</p> <p>To enable Super User click-through:</p> <p>Disable User Preference click-through in the portal:</p> <ol style="list-style-type: none"> <li>1. In the portal’s Administrative Object Directory, open the <b>Oracle WebCenter Content Service for Documentum</b> folder.</li> <li>2. Expand the Web Service section and click the <b>Oracle WebCenter Content Service for Documentum</b> Web service.</li> <li>3. On the left, under Edit Object Settings, click <b>Advanced URL Settings</b>.</li> <li>4. Remove the entry from the <b>User Configuration URL</b> box.</li> <li>5. On the left, under Edit Object Settings, click <b>Preferences</b>.</li> <li>6. Delete all User Preferences and click <b>Finish</b>.</li> </ol> <p>Stay logged in to the portal with the Oracle WebCenter Content Service for Documentum folder open for the next procedure.</p> <p>Enable content source credential click-through on the Oracle WebCenter Content Service for Documentum host computer:</p> <ol style="list-style-type: none"> <li>1. In the Oracle WebCenter Content Service for Documentum <b>config.xml</b> file (located by default in <b>C:\bea\alui\ptdctmcws\10.3.0\settings\config</b>), set <b>clickthroughAuthType</b> as follows:</li> </ol> <pre>&lt;clickthroughAuthType&gt;4&lt;/clickthroughAuthType&gt;</pre>
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## Setting the Preferred Document Rendition

The Documentum server stores *renditions* of documents (versions of documents in various formats). By default, Oracle WebCenter Content Service for Documentum returns the native version of the document. To set a preference to always retrieve PDF, Word, or text renditions, modify the <preferredRenditionFormat> element in **config.xml** (located by default in **C:\bea\alui\ptdctmcws\10.3.0\settings\config**) as follows.

**Table 4-3 Possible Preferred Rendition Format Element Values**

Value	Definition
default	This is the default and returns the document in its native format.
pdf	This specifies that the document be returned in PDF format, if available.
msw8	This specifies that the document be returned in Microsoft Word format, if available.
crtext	This specifies that the document be returned in text format, if available.

## Configuring Oracle WebCenter Content Service for Documentum

# Upgrading Oracle WebCenter Content Service for Documentum

This section provides the basic steps for upgrading Oracle WebCenter Content Service for Documentum. It includes the following topics:

- [“Upgrading the Oracle WebCenter Content Service for Documentum Software”](#) on page 5-1
- [“Upgrading from the Native Documentum Crawler to the Remote Content Crawler”](#) on page 5-2

**Caution:** If Professional Consulting Services (PCS) has made specialized customizations to the Oracle WebCenter Content Service for Documentum, do not upgrade on your own. Your customizations might not be included in the new Oracle WebCenter Content Service for Documentum. Contact PCS to perform the upgrade

## Upgrading the Oracle WebCenter Content Service for Documentum Software

Complete the following steps to upgrade the Oracle WebCenter Content Service for Documentum software:

1. If you have customized the **config.xml** and **dql.xml** configuration files, copy these files to a temporary location outside of the installation target path so that they are not overwritten by the installer.
2. Uninstall the previous version of Oracle WebCenter Content Service for Documentum.

3. Install the latest version of Oracle WebCenter Content Service for Documentum as described in [Chapter 3, “Installing Oracle WebCenter Content Service for Documentum.”](#) However, do not follow the sections involving importing the migration package into the portal.
4. Restore the previous version of **dql.xml** to the newly installed config directory (overwrite the newly installed file).
5. Open the newly installed **config.xml** and the copy of **config.xml** that you backed up from the previous installation. Modify the new **config.xml** file to include customizations from the previous **config.xml** that you want to apply to the new installation.
6. Open each content source and re-submit the credentials.
7. If you plan to use the User Preferences Click-through Security Method (the default method), modify the User Preferences names so that they are all uppercase letters:
  - a. Open the Documentum Crawler Web Service and navigate to the Preferences screen. Change the preference names from Docbase, DocbaseUser, DocbasePassword, DocbaseDomain to DOCBASE, DOCBASEUSER, DOCBASEPASSWORD, DOCBASEDOMAIN.
  - b. Open the Documentum Credentials Web Service and navigate to the Preferences screen. Change the preference names from Docbase, DocbaseUser, DocbasePassword, DocbaseDomain to DOCBASE, DOCBASEUSER, DOCBASEPASSWORD, DOCBASEDOMAIN.

## Upgrading from the Native Documentum Crawler to the Remote Content Crawler

In order to preserve the current state of your portal, contact Professional Consulting Services (PCS) to perform the upgrade.

To upgrade from the Native Documentum Crawler to the remote content crawler, you must delete and re-crawl the legacy documents.

# Troubleshooting

This section provides reference information for troubleshooting problems you might encounter when you use the Oracle WebCenter Content Service for Documentum. It includes the following topics:

- [“Reviewing Log Files”](#) on page 6-1.
- [“Modifying Configuration Files”](#) on page 6-2.
- [“Diagnosing Unexpected Results”](#) on page 6-4.

## Reviewing Log Files

If you encounter problems with crawl jobs, you can review the job logs provided through the portal’s Automation Service Utility. For details, refer to the portal’s online help or to the *Administrator Guide for Oracle WebCenter Interaction*.

If you encounter problems with the Oracle WebCenter Content Service for Documentum, you can use ALI Logging Spy to analyze portal communication.

The Oracle WebCenter Content Service for Documentum also logs communication on the Oracle WebCenter Content Service for Documentum host computer. To analyze logs specific to the Oracle WebCenter Content Service for Documentum processes, review the logs in **<RemoteServer>/ptdctmcws/10.3/settings/logs**.

## Modifying Configuration Files

If you encounter error messages or logs that indicate misconfiguration in the Oracle WebCenter Content Service for Documentum **config.xml** file, you can modify the config.xml file to correct syntax or mismatched values.

The following table describes the syntax and values for **config.xml** configuration parameters.

**Table 6-1 Configuration Parameters**

Configuration (sample value in bold)	Value Description
baseURL	<p>The URL for the Oracle WebCenter Content Service for Documentum application on the Oracle WebCenter Content Service for Documentum host computer.</p> <p>When you configure Oracle WebCenter Interaction applications, always specify the fully qualified domain name for hosts to avoid host and domain name resolution mismatches.</p>
<pre>&lt;clickthroughAuthType&gt;<b>1</b>&lt;/clickthroughAuthType&gt; &lt;trustedUserName&gt;&lt;/trustedUserName&gt; &lt;trustedPassword&gt;&lt;/trustedPassword&gt; &lt;trustedDomain&gt;&lt;/trustedDomain&gt;</pre>	<p>The clickthroughAuth type parameter determines what type of authentication to use during click-through. The following values are valid:</p> <ul style="list-style-type: none"> <li>• 1 = User Preferences</li> <li>• 2 = Basic Authentication</li> <li>• 3 = Trusted Authentication</li> <li>• 4 = Admin Preferences</li> </ul> <p>We recommend you set the accessLevelMapping value to 3 (read) if the clickThroughAuthType is either 4 or 5.</p> <p>See <a href="#">“Configuring Security for Document Discovery” on page 4-4</a> for details on accessLevelMapping.</p> <p>For Trusted authentication (option #3), credentials must be supplied below. The password must be encrypted. Follow the instructions on <a href="http://&lt;RemoteServer&gt;/dctmcws/web/install/index.html">http://&lt;RemoteServer&gt;/dctmcws/web/install/index.html</a> to generate an encrypted password.</p>

**Table 6-1 Configuration Parameters**

Configuration (sample value in bold)	Value Description
<accessLevelMapping> <b>2</b> </accessLevelMapping>	<p>The accessLevelMapping maps the Documentum access level setting to the portal's access privilege setting. Documentum users who have an access level setting that is equal to or higher than the value configured here will receive Read access in the portal. The default setting is 2 which means that Documentum users with Browse access or higher will receive Read access in the portal. Browse users will not, however, be able to click through and read the file contents because the Oracle WebCenter Content Service for Documentum verifies their credentials upon click-through and will not return the document unless they have Read access in Documentum. This is how the portal mimics the Documentum Browse-level security. An important dependency of this functionality is that userCredentialClickThrough must be set to true (see note above regarding setting this parameter to 3 if userCredentialClickThrough is set to false).</p> <p>Valid values for this parameter are:</p> <ul style="list-style-type: none"> <li>• 2 = Browse</li> <li>• 3 = Read</li> </ul>
<preferredRenditionFormat> <b>default</b> </preferredRenditionFormat>	<p>Set the preferredRenditionFormat to the desired format for the document to be returned during click-through. The portal supports the following formats:</p> <ul style="list-style-type: none"> <li>• default (or blank): The document's native format</li> <li>• pdf: Acrobat PDF</li> <li>• msw8: Microsoft Word 97/2000</li> <li>• crtext: Text (Windows)</li> </ul> <p>The setting is "preferred" because the Oracle WebCenter Content Service for Documentum will return the native format for documents if pdf/msw8/crtext is not available.</p> <p>This option only applies if userCredentialClickThrough is set to true.</p>

## Diagnosing Unexpected Results

The following table summarizes cases in which users encountered unexpected results with the Oracle WebCenter Content Service for Documentum. You can use this table as a reference for particular issues you might encounter or as a guide for troubleshooting any similar problems you might encounter.

**Table 6-2 Troubleshooting**

Symptom	Solution
<p>HTTP 500 Error on Clickthrough</p> <p>Users have reported that the URL property in a document's Properties page is clickable, but the link returns an error.</p> <p>The URL property is unique as it is clickable in the Document Properties page (accessed by clicking <b>Properties</b> for a document crawled into the portal). This is potentially confusing to users because the value is technical and clicking it results in an HTTP 500 error.</p>	<p>To avoid potential confusion, map the URL property in a content type to an Override Value, such as a space, which will prevent the technical URL from appearing in the Properties page.</p>
<p>Crawl fails with [DM_API_E_NO_SESSION] error: "There are no more available sessions."</p>	<p>Increase the sessions in server.ini and dmcl.ini. For details, see <a href="#">Chapter 7, "Advanced Configuration: Tuning Documentum Server."</a></p>

Table 6-2 Troubleshooting

Symptom	Solution
Port conflict, port in use, BindException	<p>Port numbers for HTTP and HTTPS are configured in <b>&lt;PT_HOME&gt;/ptdctmcws/10.3/settings/config/application.conf</b>. Edit the http and https settings in <b>application.conf</b> to set the value to an available port. The service must be restarted to pick up changes made in the configuration file. Note that changes to a service port number require corresponding changes to any Web service or remote server settings that may reference that port number.</p>
Memory consumption, Out of Memory Errors	<p>The maximum amount of memory, in megabytes, that the service JVM will be allowed to use is controlled by the wrapper.java.maxmemory property, configured in the file <b>&lt;PT_HOME&gt;/ptdctmcws/10.3/settings/config/wrapper.conf</b>. For example, the following line shows a maximum memory setting of 1 GB:</p> <pre>wrapper.java.maxmemory=1024</pre> <p>The setting corresponds directly to the -Xmx parameter used by the java executable. The default value of this setting in the config file will be adequate for most configurations. For large production configurations, especially those in which the service is installed on a dedicated host machine, this value should be set as high as possible (for example, 1024 or 1536) but should always remain below the amount of physical RAM on the host machine.</p>

## Troubleshooting

# Advanced Configuration: Tuning Documentum Server

The instructions in this section provide additional steps for configuring the Documentum Server to work with the Oracle WebCenter Content Service for Documentum. This includes configuration changes on the computer that hosts the Documentum client and on the Documentum Server. We strongly recommend tuning Documentum to work with the Oracle WebCenter Content Service for Documentum. A typical production environment would have all of the recommended settings in place.

**Note:** For instructions on editing the **dmcl.ini** and **server.ini** files, refer to the *Documentum eContent Server Administrator's Guide*.

## Modifying the dmcl.ini File on the Oracle WebCenter Content Service for Documentum Host

On all computers that host the Oracle WebCenter Content Service for Documentum, you can increase the **max\_session\_count** variable in the **dmcl.ini** file to allow for additional concurrent sessions. By default, the **max\_session\_count** is set to 10, meaning there can be 10 concurrent sessions to Documentum.

- The number of Documentum sessions depends on the number of content crawlers you expect to run concurrently, as well as the number of users you expect to click through links concurrently. We recommend you set the **max\_session\_count** parameter accordingly. You can increase this setting later if you find that you run out of sessions or want to increase the number of content crawlers running simultaneously.

- A session is started for each user with a unique user name/password that tries to click through to a Documentum document in the portal. The **max\_session\_count** must accommodate the estimated number of click through users to be handled concurrently.

## Modifying the server.ini File on the Documentum Server

On the Documentum Server computer, you can change the settings in the **server.ini** file to allow for additional concurrent sessions.

- The **concurrent\_sessions** variable controls the number of connections the Documentum server can handle concurrently. This parameter should accommodate for the sum of all the **max\_session\_count** values in your environment.

If you plan to use the Oracle WebCenter Content Service for Documentum with several different docbases, you must modify the **server.ini** for each docbase. When making these configuration changes, consider the following:

- As with any configuration changes, take into account any hardware limitations.
- The configuration settings depend on both existing and projected Documentum usage.

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