

Oracle® Fusion Middleware

Migrating Oracle WebCenter Content



11g (11.1.1.9.0), 12c

F25022-03

July 2022

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Oracle Fusion Middleware Migrating Oracle WebCenter Content, 11g (11.1.1.9.0), 12c

F25022-03

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9 Migrate On-Premise Clustered WebCenter Content 11g and 12c to Oracle Cloud Infrastructure

Preface

This guide describes how to administer Oracle WebCenter Content and Oracle WebCenter Content Server. It describes how to start and stop Content Server instances, how to access and use Content Server utilities, how to configure WebCenter Content components and security, and also how to archive, retrieve, and migrate WebCenter Content repository structure and content items.

Audience

This guide is intended for Oracle Fusion Middleware administrators responsible for WebCenter Content installations and Content Server deployments.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

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Related Documents

The complete Oracle WebCenter Content documentation set is available from the Oracle Help Center at <http://www.oracle.com/pls/topic/lookup?ctx=fmw122140&id=wcc-books>.

Conventions

The following text conventions are used in this document:

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

1

Introduction to WebCenter Content Migration Scenarios

Do you wish to move your WebCenter Content Release 11g or 12c to another on-premise infrastructure or Oracle Cloud infrastructure? With the new methods (`chghost` tool and Template Builder functionality), you can relocate or clone WebCenter Content instances in a much less time. You just copy data on the file system, potentially copy database schemas, and then make a few edits to the configuration files. You can use the `chghost` tool in WebCenter Content releases 12.2.1.3.0 and 12.2.1.4.0 if the new infrastructure is going to be exactly the same as the old one. The Template Builder method can be used in a wider variety of use cases for both WebCenter Content 11g and 12c releases.

Topics

- [About Migrating WebCenter Content Release 11g to Another On-Premise Infrastructure](#)
- [About Migrating WebCenter Content Release 12c to Another On-Premise Infrastructure](#)
- [About Migrating WebCenter Content Release 11g and 12c to Oracle Cloud Infrastructure](#)

1.1 About Migrating WebCenter Content Release 11g to Another On-Premise Infrastructure

Do you wish to move your WebCenter Content Release 11g to another on-premise infrastructure or Oracle Cloud infrastructure? Read on to find out the best approach to suit your setup and requirements.

You may want to move your clustered or non-clustered WebCenter Content 11g instances to new on-premise hosts where Operating System may or may not be the same. You may also want to create a different directory structure on the new host. See [Migrate Clustered WebCenter Content 11g to New Hosts on an Identical or Dissimilar Infrastructure](#) and [Migrate Non-Clustered WebCenter Content Release 11g to a New Host on an Identical or Dissimilar Infrastructure](#). Keep in mind that step-by-step scenarios covered in these topics do not apply to situations where versions of WebLogic Server or WebCenter Content should upgrade or change from those on the existing infrastructure.

There are a few scenarios in which the database will be moving as well. One such scenario is when WebCenter Content is moving to the Oracle Cloud. A second scenario is when the database is moving to new infrastructure for an on premise migration. A third scenario could be that WebCenter Content is being cloned. In any of these cases, the database schemas are assumed to be available in their new database instance and reachable from the new hosts on which WebCenter Content will reside. When the Configuration Wizard (`config.sh`) is run, additional steps will need to be taken to ensure connectivity to the database schemas in their new location.

1.2 About Migrating WebCenter Content Release 12c to Another On-Premise Infrastructure

You can migrate WebCenter Content 12c using `chghost` script or WebLogic Template Builder. The components of the new infrastructure to which you plan to migrate are key factors in determining the method you should consider.

Whether it's a non-clustered WebCenter Content 12c or clustered, if the new infrastructure to which you plan to migrate WebCenter Content is going to be the same, then consider using the `chghost` script for migration. Identical infrastructure on the new host means using the same Operating System, the same version of JDK in the same directory structure. The WebCenter Content directory structure must remain the same, too. The similarities between old and new infrastructure extend beyond using the same topology, same versions of Fusion Middleware and WebCenter Content. See [Migrate Non-Clustered WebCenter Content 12c to a New Host on an Identical Infrastructure](#) and [Migrate Clustered WebCenter Content 12c to New Hosts on an Identical Infrastructure](#).

For migrating clustered or non-clustered WebCenter Content 12c to an infrastructure where Operating System and WebCenter Content directory structure would change, consider using information provided in [Migrate Non-Clustered WebCenter Content 12c to a Dissimilar Infrastructure](#) and [Migrate Clustered WebCenter Content 12c to New Hosts on a Dissimilar Infrastructure](#). For detailed information on the `cghost` utility, see Changing Network Configurations in *Administering Oracle Fusion Middleware*.

1.3 About Migrating WebCenter Content Release 11g and 12c to Oracle Cloud Infrastructure

You can move WebCenter Content 11g and 12c, clustered or non-clustered, to Oracle Cloud Infrastructure using the same approach that applies if WebCenter Content is moved to another identical or dissimilar infrastructure. You can migrate to a different Operating System and create a different directory structure.

Migrating the database or upgrading WebLogic Server or WebCenter Content are not included in the approach covered here. If you are planning to migrate your WebCenter Content to Oracle Cloud Infrastructure, consider these points:

Size of Data and Available Connection Bandwidth

How much data is to be moved? This is primarily impacted by what is contained in the vault and weblayout directories of WebCenter Content, but may also include any archives that are present on the system. There are also the database schemas to consider, such as `content server`'s `_OCS` schema and the `_MDS` schema. If it's a small amount of content, then typical file system tools like `rsync` are sufficient for copying the data. If it's a case where moving data over the public Internet is not feasible because of high network costs, unreliable network connectivity, long transfer times, or security concerns, you can consider using our Data Transfer Service to undertake an offline transfer of the data. For more information, see [Overview of Data Transfer Service](#).

Availability / Downtime

How much downtime can be afforded? If it's a development system, then the uptime requirements may not be as stringent as a production system. So, you might be able to bring down the system and not bring it up again until it's moved to Oracle Cloud Infrastructure. Downtime also depends on the amount of content stored in WebCenter Content, and how long that would take to copy to the Cloud infrastructure. To keep the downtime minimum possible, you can take some steps ahead of time and synchronize the current system-- until the cutover happens---with the location to which the content will be moving.

Integrations

Do you have other applications or systems, such as on-premise applications, Cloud applications, third-party applications, and authentication and authorization providers that are connected to the Webcenter Content instance that you're planning to move to Oracle Cloud Infrastructure?

Database and Data Sources

The database can be copied to an Oracle Cloud Infrastructure-based database using any of the supported methods for copying databases. All you will need to do is update the JDBC connection strings in each of the data sources' XML files to reach the database in its new location. These updates must be done before starting WebLogic server, managed servers, and WebCenter Content on the new hosts. The database on Oracle Cloud Infrastructure can be configured ahead of time and then tools such as DataGuard could be used to keep the new Cloud-based database in sync with the on-going changes on the live system in the old location. The *Disaster Recovery Guide* includes the necessary guidance.

File System

It's possible for the file system, particularly the shared file system in the case of clusters, to be copied over early, before any cutover happens. If this is the case, then you will need some file system tools to ensure that the file system level changes are synchronized between the existing system and the new Cloud-based system. See *Disaster Recovery Guide*.

2

Migrate Non-Clustered WebCenter Content Release 11g to a New Host on an Identical or Dissimilar Infrastructure

The following topics will guide you in moving an 11g WebCenter Content domain instance, Refinery and WebCenter Content user interface to a new host using the Template Builder tool from WebLogic Server. This information supplements *Creating Domain Templates Using the Domain Template Builder*.



Note:

Consider the following before starting the migration process:

- The versions of WebLogic Server and WebCenter Content must match between the old host and the new host. The sample steps included in the following topics can't be used to upgrade to a newer version at the same time you migrate WebCenter Content to new hosts.
- If there are other products in the domain such as WebCenter Portal or BPM, make sure that their instructions are also taken into account. The following topics are oriented toward WebCenter Content alone.

Topics

- [Preliminary Steps Before Migrating Non-Clustered WebCenter Content Release 11g](#)
- [Build a Template for an Existing Domain](#)
- [Create a New Domain](#)
- [Copy WebCenter Content 11g Directory to the New Host](#)
- [Mount Vault and Weblayout Directories and Adjust Configuration Settings for WebCenter Content 11g and Inbound Refinery 11g](#)
- [Start Servers and Create boot.properties Files](#)
- [Swap Out Executables](#)
- [Adjust Outgoing Provider Settings on WebCenter Content for the Inbound Refinery](#)
- [Configure Security Providers](#)
- [Update Database Information for Standalone Java Applications](#)
- [Verify Everything Works](#)

2.1 Preliminary Steps Before Migrating Non-Clustered WebCenter Content Release 11g

Make sure to follow these steps before you start the migration process:

1. Stop all managed servers, the admin server, and the node manager
2. Back up WebCenter Content file system. For detailed information, see [Recommendations for Oracle WebCenter Content](#).
3. Back up WebCenter Content's database using your preferred method.
4. Install the same JDK version on the new host as the one on the old host
5. Install WebLogic Server's binaries on the new host.
6. Install WebCenter Content's binaries on the new host.
7. Install the same patches on the new host as were applied to the old host.
8. If WebCenter Content is being migrated and the vault and weblayout directories are on a remote file system, unmount them at this time.
9. If WebCenter Content is being cloned and the vault and weblayout directories are on a remote file system, unmount them at this time and copy them to their new locations.
10. There are a few scenarios in which the database will be moving as well. One such scenario is when WebCenter Content is moving to the Oracle Cloud. A second scenario is when the database is moving to a new infrastructure for an on-premise migration. A third scenario could be that WebCenter Content is being cloned. In any of these cases, the database schemas are assumed to be available in their new database instance and reachable from the new hosts on which WebCenter Content will reside. When the Configuration Wizard (`config.sh`) is run, additional steps will need to be taken to ensure connectivity to the database schemas in their new location. There are three objects within the system schema that are required for Fusion Middleware to operate properly, especially when it comes to upgrades. These objects are: `schema_version_registry` view, `schema_version_registry` synonym, and `schema_version_registry$` table. If any of these items are missed, you must follow the steps in [Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects](#) to recreate the missing objects in the new database instance to prevent issues in the future. In addition to that, you must also include all of the schemas whose names contain the prefix that you defined for the environment in question.

2.2 Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects

The `SYSTEM.SCHEMA_VERSION_REGISTRY` schema version registry table contains version data for all the schemas. Many operations such as upgrade cannot proceed if this table is not available.

To restore lost database objects:

1. Check if the schema version registry table/view/synonym are present:

- a. Run following database queries while connected to the repository database as user with the `sysdba` privilege
- b. If `SYSTEM.SCHEMA_VERSION_REGISTRY$.TABLE` is present and only view/synonym is missing go to step 7.

```
column OWNER format a10
select owner, object_name, object_type from all_objects where
object_name like '%SCHEMA_VERSION_REGISTRY%';
```

```
OWNER OBJECT_NAME OBJECT_TYPE
-----
SYSTEM SCHEMA_VERSION_REGISTRY VIEW
PUBLIC SCHEMA_VERSION_REGISTRY SYNONYM
SYSTEM SCHEMA_VERSION_REGISTRY$ TABLE
```

2. Use the same version of RCU that was used to create the schemas initially. Run RCU against the existing repository and create schemas with a new PREFIX. DEV1 will be used for the rest of the steps as the new prefix.
3. Create duplicate entries in `schema_version_registry` by making copies of the original schemas. DEV will be used in the rest of the steps as the original prefix.
 - a. Display schema entries that RCU execution just created for DEV1.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
ROWID MRC_NAME OWNER
-----
```

```
AAASqQAABAAAUmJAAA DEV1 DEV1_MDSAAASqQ
AABAAAUmJAAB DEV1 DEV1_ORASDPM
AAASqQAABAAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAD DEV1 DEV1_ORABA
```

- b. Create duplicate entries in `system.schema_version_registry$` from DEV1.

```
insert into system.schema_version_registry$ select * from
system.schema_version_registry$ where mrc_name='DEV1';
```

- c. Run query to display the duplicate entries.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
```

Example:

```
ROWID MRC_NAME OWNER
-----
AAASqQAABAAAUmJAAA DEV1 DEV1_MDS
AAASqQAABAAAUmJAAB DEV1 DEV1_ORASDPM
AABAAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAD DEV1 DEV1_ORABAM
AABAAAUmJAAE DEV1 DEV1_MDSAAASqQ
AABAAAUmJAAF DEV1 DEV1_ORASDPM
AABAAAUmJAAG DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAH DEV1 DEV1_ORABAM
```

- Alter the duplicate entries to match the original schema PREFIX in the MRC_NAME column. This is done by using the ROWID column to distinguish the newly created RCU entries from the duplicates just made. Note that these ROWID values will be different for your database than this example shows. Using DEV as the original schema prefix.

```
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_MDS' where rowid='AAASqQAABAAUmJAAE';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORASDPM' where rowid='AAASqQAABAAUmJAAF';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_SOAINFRA' where rowid='AAASqQAABAAUmJAAG';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORABAM' where rowid='AAASqQAABAAUmJAAH';
```

- Display the change showing the original prefix (DEV).

```
select mrc_name, owner, status from schema_version_registry where
mrc_name='DEV';
```

```
MRC_NAME OWNER STATUS
-----
```

```
DEV DEV_ORABAM LOADINGDEV
DEV_MDS VALIDDEV
DEV_ORASDPM VALIDDEV
DEV_SOAINFRA VALID
```

- Commit changes

```
commit;
```

- Create public synonym and view for system.schema_version_registry\$.

```
create view system.schema_version_registry as select comp_id,
comp_name,mrc_name, mr_name, mr_type, owner, version, status,
upgraded, start_time,modified, edition from
system.schema_version_registry$;
```

```
create public synonym SCHEMA_VERSION_REGISTRY FOR
SYSTEM.SCHEMA_VERSION_REGISTRY;
```

- May need to grant proper privilege to some schemas (eg. If schemas privs were lost during export/import). This step is site-specific and will depend on your situation and schemas created.

For example:

```
grant select on system.schema_version_registry to DEV_IAU ;
grant select on system.schema_version_registry to DEV_IAU_APPEND;
grant select on system.schema_version_registry to DEV_IAU_VIEWER;
grant select on system.schema_version_registry to DEV_MDS ;
grant select on system.schema_version_registry to DEV_OPSS;
```

9. Run RCU again to drop all the schemas that were created when run in Step#2 above. This will leave just the modified `schema_version_registry` entries for the PREFIX (Example: DEV) schemas in the `system.schema_version_registry$` table that were just added.

2.3 Build a Template for an Existing Domain

After you've performed the preliminary steps, build a template for the domain you plan to migrate.

To build the domain template:

1. Run the Template Builder to create a domain template on the old host.

```
FMW_HOME/wlserver_10.3/common/bin/config_builder.sh  
(On Windows, config_builder is named as config_builder.cmd)
```

2. In the Template Builder Release 11g dialog box:
 - a. On the Create a New Template page, select **Create a Domain Template**, and click **Next**.
 - b. On the Select a Template Domain Source page, select the **Domain** and click **Next**.
 - c. On the Describe the Template page, confirm and provide the template JAR name and version. Optionally, you can also enter the author information. Click **Next**.
 - d. On the Specify Template Jar Name and Location page, confirm or provide the Template jar name and the Template location, and then click **Next**.
 - e. On the Add or Omit Applications page, click **Next**.
 - f. On the Add Files page, click **Next**.
 - g. On the Add SQL Scripts page, click **Next**.
 - h. On the Configure the Administration Server page, confirm the values, and click **Next**.
 - i. On the Configure Administrator User Name and Password page, confirm the values and click **Next**.
 - j. On the Specify Start Menu Entries page, click **Next**.
 - k. On the Prepare Scripts and Files with Replacement Variables page, click **Next**.
 - l. On the Review WebLogic Domain Template page, click **Create**.
 - m. On the Creating Template page, click **Done**.
3. Copy the domain template that was just created to the new host.

2.4 Create a New Domain

You've created the domain template and copied it to the new host to which you are migrating your WebCenter Content instance. Now create a new domain on the new host.

To create a new domain:

1. Run the Configuration Wizard on the new host using the template you created earlier.

```
$ORACLE_HOME/common/bin/config.sh (On Windows, this is named config.cmd)
```

2. In the Configuration Wizard dialog box:
 - a. On the Welcome page, select **Create a new WebLogic Domain**, and click **Next**.
 - b. On the Select Domain Source page, select **Base this domain on an existing template** and select the template created earlier, and then click **Next**.
 - c. On the Specify Domain Name and Location page, provide or confirm the values for Domain name, Domain location, Application location, and then click **Next**.
 - d. On the Configure Administrator User Name and Password page, enter desired values for Name, User password, and Confirm user password. Click **Next**.
 - e. On the Configure Server Start Mode and JDK page, select the desired startup mode and JDK, and then click **Next**.
 - f. On the Configure JDBC Component Schema page, do one of the following (as applicable):
 - If the database is not moving, select the schema and click **Next**.
 - If the database is moving, enter the new values for **Host Name, DBMS/Service, Port, Schema Owner, and Schema Password** for each of the data sources and click **Next**.

 **Note:**

If multiple data sources are selected on this page, then the value can be changed for the same field at the same time for all of the selected data sources.

- g. On the Test JDBC Component Schema page, select the schema(s), then click **Test Connections**, and then **Next**.
- h. On the Select Optional Configuration page, select Administration Server, Managed Servers, Clusters, and Machines, and then click **Next**.
- i. On the Configure the Administration Server page, enter the listen address of the new host and click **Next**. This could be set to a DNS name or localhost, or left blank. If left blank, then it listens on all available options.
- j. On the Configure Managed Servers page, enter the listen address of the new host for all managed servers and click **Next**.
- k. On the Configure Clusters page, click **Next**.
- l. On the Configure Machines page, enter the listen address of the new host for any defined machines and click **Next**.
- m. On the Assign Servers to Machines page, click **Next**.
- n. On the Configuration Summary page, click **Create**.
- o. On the Creating Domain page, click **Done**.

2.5 Copy WebCenter Content 11g Directory to the New Host

Now that the domain is created, go ahead and copy the WebCenter Content directory to the new host. Several tools are available to help you accomplish this task. In this example, we'll use `rsync` to copy from one Linux host to another.

To copy the WebCenter Content directory to the new host:

1. Run `mkdir ucm` on target host in the `DOMAINHOME` directory.
2. Copy the `DOMAINHOME/ucm` directory from the old host to the new host.

```
rsync -avzh ucm/ oracle@target.domain.com:DOMAINHOME/ucm
```

2.6 Mount Vault and Weblayout Directories and Adjust Configuration Settings for WebCenter Content 11g and Inbound Refinery 11g

By default, both the vault and weblayout directories are located in the `DOMAINHOME/ucm/cs` directory. If WebCenter Content was migrated and the vault and weblayout directories were on some remote file system, mount them at this time. Instead, if it was cloned and the vault and weblayout directories were on some remote file system, mount their copies from the new location at this time.

If you moved vault and weblayout directories elsewhere, you need to edit the WebCenter Content's `DOMAINHOME/ucm/cs/bin/intradoc.cfg` file for the `VaultDir` and `WeblayoutDir` configuration entries to see what those are set to. In 11.1.1.9.0 and later releases, you not only need to check the `intradoc.cfg`, but also the `MANAGEDSERVERNAME_intradoc.cfg` in the same directory, which takes precedence over the `intradoc.cfg`.

To adjust configuration settings of WebCenter Content and Refinery:

1. Edit WebCenter Content's and Refinery's `MANAGEDSERVERNAME_intradoc.cfg` and `intradoc.cfg` files with the updated directory paths, if necessary. The `intradoc.cfg` file and the `MANAGEDSERVERNAME_intradoc.cfg` file are located in the `DOMAINHOME/ucm/cs/bin` directory for WebCenter Content and in the `DOMAINHOME/ucm/ibr/bin` directory for the Refinery.

Note:

The `MANAGEDSERVERNAME_intradoc.cfg` file is available in version 11.1.1.9.0 (2016-06-24 00:16:34Z-r144917) or 12c (12.2.1.1.0) or greater.

Update the following:

- `IdcHomeDir`
- `FmwDomainConfigDir`
- `AppServerJavaHome`

- IntradocDir
 - VaultDir
 - WeblayoutDir
 - UserProfilesDir
2. Edit WebCenter Content's and Refinery's `config.cfg` files to include the updated host name for `HttpServerAddress`. On WebCenter Content, this file is located in the `DOMAINHOME/ucm/cs/config` directory. Inbound Refinery's `config.cfg` is in the `DOMAINHOME/ucm/ibr/config` directory.
 3. Edit WebCenter Content's and Refinery's `config.cfg` files to include the updated host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter`.

2.7 Start Servers and Create boot.properties Files

Configuring a `boot.properties` file allows you to start the managed server from the command line without being prompted to provide a user name and password during startup. You store the user name and password in the `boot.properties` file which is read during startup.

Using the Admin Server and Node Manager to start the managed servers is one option. Another option is to just use the `startManagedWebLogic.sh/cmd` scripts from a terminal session.

1. Start the Admin Server on the new host.
2. Start the Node Manager on the new host.
3. Start the managed servers on the new host.
4. Create the `boot.properties` files for the Admin Server and each managed server.

2.8 Swap Out Executables

If the operating system has changed or directory paths have changed, you will need to replace the executables or redo the symbolic links with the proper ones. Here are a few possible scenarios.

Windows to Linux

1. Delete `.exe` files in the `DOMAINHOME/ucm/cs/bin` directory on the new Linux host.
2. From the `DOMAINHOME/ucm/cs/bin` directory, create a symbolic link to `FMWHOME/Oracle_ECML/ucm/idc/native/Launcher.sh`:

```
ln -s /FMWHOME/Oracle_ECML/ucm/idc/native/Launcher.sh Launcher.sh
```

3. From the `DOMAINHOME/ucm/cs/bin` directory, create symbolic links to `DOMAINHOME/ucm/cs/bin/Launcher.sh` called:

- Archiver
- BatchLoader

- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer
- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WebLayoutEditor
- WorkflowAdmin

Example:

```
ln -s Launcher.sh Archiver
```

4. Go to the DOMAINHOME/ucm/cs/admin/bin directory and delete the following items:

- IdcAdmin.exe
- IdcAdminNT.exe
- NTProcCtrl.exe

5. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/Oracle_ECm1/ucm/idc/native/Launcher.sh Launcher.sh
```

6. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the DOMAINHOME/ucm/cs/admin/bin/Launcher.sh:

```
ln -s Launcher.sh IdcAdmin  
ln -s Launcher.sh UnixProcCtrl
```

7. If a refinery was moved, delete the .exe files in the DOMAINHOME/ucm/ibr/bin directory.**8. In the DOMAINHOME/ucm/ibr/bin directory, create a symbolic link to the FMWHOME/Oracle_ECm1/ucm/idc/native/Launcher.sh.**

```
ln -s FMWHOME/Oracle_ECm1/ucm/idc/native/Launcher.sh Launcher.sh
```

9. From the DOMAINHOME/ucm/ibr/bin directory, create symbolic links to DOMAINHOME/ucm/ibr/bin/Launcher.sh called:

- ComponentWizard

- IdcCommand
- IdcRefinery
- Installer
- SystemProperties
- UnixProcCtrl

Example:

```
ln -s Launcher.sh ComponentWizard
```

- 10. Go to the** DOMAINHOME/ucm/ibr/admin/bin **directory and delete the following items:**

- IdcAdmin.exe
- IdcAdminNT.exe
- NtProcCtrl.exe

- 11. Create the symbolic link for the Launcher.sh using the new location:**

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

- 12. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the** DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

Linux to Linux

- 1. Go to the** DOMAINHOME/ucm/cs/bin **directory.**
- 2. Delete the** Launcher.sh **symbolic link.**
- 3. Create the symbolic link for the** Launcher.sh **using the new location.**

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

- 4. Delete the items below:**

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell

- Installer
- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WeblayoutEditor
- WorkflowAdmin

5. Create the various symbolic links to point to the Launcher.sh:

```
ln -s Launcher.sh Archiver
ln -s Launcher.sh BatchLoader
ln -s Launcher.sh ComponentTool
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh ConfigurationManager
ln -s Launcher.sh IdcAnalyze
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcServer
ln -s Launcher.sh IdcShell
ln -s Launcher.sh Installer
ln -s Launcher.sh IntradocApp
ln -s Launcher.sh RepositoryManager
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
ln -s Launcher.sh UserAdmin
ln -s Launcher.sh WeblayoutEditor
ln -s Launcher.sh WorkflowAdmin
```

6. Go to the DOMAINHOME/ucm/cs/admin/bin directory and delete the following items:

- IdcAdmin
- Launcher.sh
- UnixProcCtrl

7. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

8. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the DOMAINHOME/ucm/cs/admin/bin/Launcher.sh.

9. Repeat steps 1 through 5 for other content server cluster nodes in the domain.

10. Go to the DOMAINHOME/ucm/ibr/bin directory and delete the Launcher.sh.

11. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

12. Delete the items below:

- ComponentWizard
- IdcCommand
- IdcRefinery
- Installer
- SystemProperties
- UnixProcCtrl

13. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/bin/Launcher.sh`:

```
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcRefinery
ln -s Launcher.sh Installer
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
```

14. Go to the `DOMAINHOME/ucm/ibr/admin/bin` directory and delete the following items:

- IdcAdmin
- Launcher.sh
- UnixProcCtrl

15. Create the symbolic link for the `Launcher.sh` using the new location:

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

16. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

Linux to Windows

1. Go to the `DOMAINHOME/ucm/cs/bin` directory and delete these items:

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell

- Installer
 - IntradocApp
 - RepositoryManager
 - SystemProperties
 - UnixProcCtrl
 - UserAdmin
 - WebLayoutEditor
 - WorkflowAdmin
2. **Copy the** `FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/Launcher.exe` **to the** `DOMAINHOME/ucm/cs/bin` **directory.**
 3. **Copy the** `DOMAINHOME/ucm/cs/bin/Launcher.exe` **to the** `DOMAINHOME/ucm/cs/bin` **directory with the following names:**
 - Archiver.exe
 - BatchLoader.exe
 - ComponentTool.exe
 - ComponentWizard.exe
 - ConfigurationManager.exe
 - IdcAnalyze.exe
 - IdcCommand.exe
 - IdcServer.exe
 - IdcShell.exe
 - Installer.exe
 - IntradocApp.exe
 - RepositoryManager.exe
 - SystemProperties.exe
 - UserAdmin.exe
 - WebLayoutEditor.exe
 - WorkflowAdmin.exe
 4. **Delete the** `DOMAINHOME/ucm/cs/bin/Launcher.exe` **file.**
 5. **Go to the** `DOMAINHOME/ucm/cs/admin/bin` **directory and delete these items:**
 - IdcAdmin
 - Launcher.sh
 - UnixProcCtrl
 6. **Copy the** `FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/Launcher.exe` **file to the** `DOMAINHOME/ucm/cs/admin/bin` **directory**
 7. **Copy the** `DOMAINHOME/ucm/cs/admin/bin/Launcher.exe` **to the** `DOMAINHOME/ucm/cs/admin/bin` **directory with the following names:**

- IdcAdmin.exe
 - IdcAdminNT.exe
8. Delete the `DOMAINHOME/ucm/cs/admin/bin/Launcher.exe` file.
 9. Copy the `FMWHOME/Oracle_ECML/ucm/idc/native/windows-amd64/bin/NtProcCtrl.exe` file to the `DOMAINHOME/ucm/cs/admin/bin` directory.
 10. Repeat steps 1 through 4 for other content server cluster nodes in the domain.
 11. Go to the `DOMAINHOME/ucm/ibr/bin` directory and delete these items:
 - ComponentWizard
 - IdcCommand
 - IdcRefineryInstaller
 - Launcher.sh
 - SystemProperties
 - UnixProcCtrl
 12. Copy the `FMWHOME/Oracle_ECML/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/ibr/bin` directory.
 13. Copy the `DOMAINHOME/ucm/ibr/bin/Launcher.exe` to the `DOMAINHOME/ucm/ibr/bin` directory with the following names:
 - ComponentWizard.exe
 - IdcRefinery.exe
 - IdcRefineryNT.exe
 - Installer.exe
 - SystemProperties.exe
 14. Delete the `DOMAINHOME/ucm/ibr/bin/Launcher.exe` file.
 15. Go to the `DOMAINHOME/ucm/ibr/admin/bin` directory and delete these items:
 - IdcAdmin
 - Launcher.sh
 - UnixProcCtrl
 16. Copy the `FMWHOME/Oracle_ECML/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/ibr/admin/bin` directory.
 17. Copy the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe` to the `DOMAINHOME/ucm/ibr/admin/bin` directory with the following names:
 - IdcAdmin.exe
 - IdcAdminNT.exe
 18. Delete the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe` file
 19. Copy the `FMWHOME/Oracle_ECML/ucm/idc/native/windows-amd64/bin/NtProcCtrl.exe` file to the `DOMAINHOME/ucm/ibr/admin/bin` directory.

2.9 Adjust Outgoing Provider Settings on WebCenter Content for the Inbound Refinery

1. Log into WebCenter Content.
2. Go to the **Administration - Providers** page. For the outgoing provider connected to the refinery, click **Info** and then click **Edit**.
3. Provide the new values for Server Host Name and HTTP Server Address, and click **Update**.
4. Restart the managed server for WebCenter Content.

2.10 Configure Security Providers

Manually port the security provider data to the domain's new location. This is required because the Domain Template Builder is an offline utility, and therefore, does not export security provider data such as embedded LDAP data, into domain templates.

Related Topics

- Porting Security Provider Data to a New Domain

2.11 Update Database Information for Standalone Java Applications

If the database location has changed:

1. From the `DOMAINHOME/ucm/cs/bin` directory, run the `SystemProperties` application.
2. From within the `SystemProperties` application, update the database information on the **Database** tab so that the standalone Java applications in WebCenter Content's `bin` directory can be launched successfully.

2.12 Verify Everything Works

If you have never run any of the standalone java applications before, you need to reset the local `sysadmin` user's password using the `UserAdmin` applet and also configure the `jdbc` connection using `SystemProperties` so the standalone java applications can interact with the database and function.

To check that migration has been successful:

1. Run `IdcAnalyze` to confirm there are no errors. On the **Configuration** tab, ensure the following:
 - **Database** is selected
 - **Database** → **RevClassIDs** is selected
 - **Database** → **Clean Database** is deselected
 - **Search index** is selected
 - **Search index** → **Clean Search Index** is deselected

- **file system** is selected
- **Generate Report** is selected

If errors are reported, fix them as necessary.

2. Update other applications' configuration settings with the new host name for WebCenter Content. The changes are highly dependent upon the application that's connecting.

3

Migrate Clustered WebCenter Content 11g to New Hosts on an Identical or Dissimilar Infrastructure

Topics that follow will guide you in moving clusters of WebCenter Content 11g to another infrastructure where Operating System and directory structure may or may not be the same as the existing infrastructure.

Note:

The versions of WebLogic Server and WebCenter Content must match between the old hosts and the new hosts. The following topics DO NOT include instructions for upgrading to a newer version but for migrating current setup of WebCenter Content. To migrate other Oracle products from the existing infrastructure such as WebCenter Portal or BPM, make sure to take in account the required instructions. These topics focus only on migrating WebCenter Content.

Topics

- [Preliminary Steps Before Migrating Clustered WebCenter Content Release 11g](#)
- [Build a Template for an Existing Domain](#)
- [Create a New Domain](#)
- [Copy WebCenter Content Directory to the New Host](#)
- [Disable Host Name Verification](#)
- [Mount Shared File System and Adjust Configuration Settings for WebCenter Content](#)
- [Verify that WebCenter Content 1 \(UCM_server1\) Starts on the New Host](#)
- [Perform Pack and Unpack Operations to Extend the Domain to the Second Node](#)
- [Copy WebCenter Content Directory to the New Host](#)
- [Adjust Configuration Settings for the WebCenter Content Node](#)
- [Verify that UCM_server2 Starts on the New Host](#)
- [Adjust Configuration Settings for Inbound Refineries](#)
- [Verify that Inbound Refineries Start Successfully on New Hosts](#)
- [Swap Out Executables](#)
- [Adjust Outgoing Provider Settings for Inbound Refineries](#)
- [Configure Security Providers](#)
- [Update Database Information for Standalone Java Applications](#)
- [Verify That Everything Works](#)

3.1 Preliminary Steps Before Migrating Clustered WebCenter Content Release 11g

Make sure to follow these steps before you start the migration process:

1. Stop all managed servers, the admin server, and the node manager
2. Back up WebCenter Content file system.
3. Back up WebCenter Content's database.
4. Install the same JDK version on the new host as the one on the old host
5. Install WebLogic Server's binaries on the new host.
6. Install WebCenter Content's binaries on the new host.
7. Install the same patches on the new host as were applied to the old host.
8. If WebCenter Content is being migrated, detach/unmount the shared file system from the old hosts.
9. If WebCenter Content is being cloned, detach/unmount the shared file system from the old hosts and also copy the shared file system to its new location.
10. There are a few scenarios in which the database will be moving as well. One such scenario is when WebCenter Content is moving to the Oracle Cloud. A second scenario is when the database is moving to a new infrastructure for an on-premise migration. A third scenario could be that WebCenter Content is being cloned. In any of these cases, the database schemas are assumed to be available in their new database instance and reachable from the new hosts on which WebCenter Content will reside. When the Configuration Wizard (`config.sh`) is run, additional steps will need to be taken to ensure connectivity to the database schemas in their new location. There are three objects within the system schema that are required for Fusion Middleware to operate properly, especially when it comes to upgrades. These objects are: `schema_version_registry` view, `schema_version_registry` synonym, and `schema_version_registry$` table. If any of these items are missed, you must follow the steps in [Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects](#) to recreate the missing objects in the new database instance to prevent issues in the future. In addition to that, you must also include all of the schemas whose names contain the prefix that you defined for the environment in question.

3.2 Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects

The `SYSTEM.SCHEMA_VERSION_REGISTRY` schema version registry table contains version data for all the schemas. Many operations such as upgrade cannot proceed if this table is not available.

To restore lost database objects:

1. Check if the schema version registry table/view/synonym are present:
 - a. Run following database queries while connected to the repository database as user with the `sysdba` privilege

- b. If SYSTEM.SCHEMA_VERSION_REGISTRY\$.TABLE is present and only view/synonym is missing go to step 7.

```
column OWNER format a10
select owner, object_name, object_type from all_objects where
object_name like '%SCHEMA_VERSION_REGISTRY%';
```

```
OWNER OBJECT_NAME OBJECT_TYPE
-----
SYSTEM SCHEMA_VERSION_REGISTRY VIEW
PUBLIC SCHEMA_VERSION_REGISTRY SYNONYM
SYSTEM SCHEMA_VERSION_REGISTRY$ TABLE
```

2. Use the same version of RCU that was used to create the schemas initially. Run RCU against the existing repository and create schemas with a new PREFIX. DEV1 will be used for the rest of the steps as the new prefix.
3. Create duplicate entries in schema_version_registry by making copies of the original schemas. DEV will be used in the rest of the steps as the original prefix.
 - a. Display schema entries that RCU execution just created for DEV1.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
ROWID MRC_NAME OWNER
-----
```

```
AAASqQAABAAAUmJAAA DEV1 DEV1_MDSAAASqQ
AABAAAUmJAAB DEV1 DEV1_ORASDPM
AAASqQAABAAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAD DEV1 DEV1_ORABA
```

- b. Create duplicate entries in system.schema_version_registry\$ from DEV1.

```
insert into system.schema_version_registry$ select * from
system.schema_version_registry$ where mrc_name='DEV1';
```

- c. Run query to display the duplicate entries.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
```

Example:

```
ROWID MRC_NAME OWNER
-----
AAASqQAABAAAUmJAAA DEV1 DEV1_MDS
AAASqQAABAAAUmJAAB DEV1 DEV1_ORASDPM
AABAAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAD DEV1 DEV1_ORABAM
AABAAAUmJAAE DEV1 DEV1_MDSAAASqQ
AABAAAUmJAAF DEV1 DEV1_ORASDPM
AABAAAUmJAAG DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAH DEV1 DEV1_ORABAM
```

4. Alter the duplicate entries to match the original schema PREFIX in the MRC_NAME column. This is done by using the ROWID column to distinguish the newly created RCU entries

from the duplicates just made. Note that these ROWID values will be different for your database than this example shows. Using DEV as the original schema prefix.

```
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_MDS' where rowid='AAASqQAABAAAUmJAAE';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORASDPM' where rowid='AAASqQAABAAAUmJAAF';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_SOAINFRA' where rowid='AAASqQAABAAAUmJAAG';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORABAM' where rowid='AAASqQAABAAAUmJAAH';
```

5. Display the change showing the original prefix (DEV).

```
select mrc_name, owner, status from schema_version_registry where
mrc_name='DEV';
```

```
MRC_NAME OWNER STATUS
-----
DEV DEV_ORABAM LOADINGDEV
DEV_MDS VALIDDEV
DEV_ORASDPM VALIDDEV
DEV_SOAINFRA VALID
```

6. Commit changes

```
commit;
```

7. Create public synonym and view for system.schema_version_registry\$.

```
create view system.schema_version_registry as select comp_id,
comp_name,mrc_name, mr_name, mr_type, owner, version, status,
upgraded, start_time,modified, edition from
system.schema_version_registry$;
```

```
create public synonym SCHEMA_VERSION_REGISTRY FOR
SYSTEM.SCHEMA_VERSION_REGISTRY;
```

8. May need to grant proper privilege to some schemas (eg. If schemas privs were lost during export/import). This step is site-specific and will depend on your situation and schemas created.

For example:

```
grant select on system.schema_version_registry to DEV_IAU ;
grant select on system.schema_version_registry to DEV_IAU_APPEND;
grant select on system.schema_version_registry to DEV_IAU_VIEWER;
grant select on system.schema_version_registry to DEV_MDS ;
grant select on system.schema_version_registry to DEV_OPSS;
```

9. Run RCU again to drop all the schemas that were created when run in Step#2 above. This will leave just the modified schema_version_registry entries for the PREFIX (Example: DEV) schemas in the system.schema_version_registry\$ table that were just added.

3.3 Build a Template for an Existing Domain

After you've performed the preliminary steps, build a template for the domain you plan to migrate.

To build a domain template:

1. Run the Template Builder on the host on which the admin server is running (in this example, `apphost1`).

```
$ORACLE_HOME/wlserver_10.3/common/bin/config_builder.sh
```

2. In the Template Builder Release 11g dialog box:
 - a. On the Create a New Template page, select **Create a Domain Template**, and click **Next**.
 - b. On the Select a Template Domain Source page, select the **Domain** and click **Next**.
 - c. On the Describe the Template page, confirm or provide required values for **Name**, **Version**, and **Author**, and click **Next**.
 - d. On the Specify Template Jar Name and Location page, confirm or provide the template JAR name and the template location, and then click **Next**.
 - e. On the Add or Omit Applications page, click **Next**.
 - f. On the Add Files page, click **Next**.
 - g. On the Add SQL Scripts page, click **Next**.
 - h. On the Configure the Administration Server page, confirm the values, and click **Next**.
 - i. On the Configure Administrator User Name and Password page, confirm the values and click **Next**.
 - j. On the Specify Start Menu Entries page, click **Next**.
 - k. On the Prepare Scripts and Files with Replacement Variables page, click **Next**.
 - l. On the Review WebLogic Domain Template page, click **Create**.
 - m. On the Creating Template page, click **Done**.
3. Copy the domain template that was just created to the new host on which the new admin server will reside.

3.4 Create a New Domain

You've created the domain template and copied it to the new host to which you are migrating your WebCenter Content instance. Now create a new domain on the new host.

To create a new domain:

1. Run the Configuration Wizard on the new host using the template that was just created.

```
FMW_HOME/Oracle_ECM1/common/bin/config.sh
```

2. In the Configuration Wizard dialog box:
 - a. On the Welcome page, select **Create a New WebLogic Domain**, and click **Next**.

- b. On the Select Domain Source page, select **Base this domain on an existing template**, select the template created earlier, and click **Next**.
- c. On the Specify Domain Name and Location page, provide or confirm the values for domain name, domain location, application location, and then click **Next**.
- d. On the Configure Administrator User Name and Password page, enter desired values for user name and password. Click **Next**.
- e. On the Configure Server Start Mode and JDK page, select the desired startup mode and JDK, and then click **Next**.
- f. On the Configure JDBC Component Schema page, do one of the following (as applicable):
 - If the database is not moving, select the schema and click **Next**.
 - If the database is moving, enter the new values for **Host Name, DBMS/Service, Port, Schema Owner, and Schema Password** for each of the data sources and click **Next**.

 **Note:**

If multiple data sources are selected on this page, then the value can be changed for the same field at the same time for all of the selected data sources.

- g. On the Test JDBC Component Schema page, select the schema(s), then click **Test Connections**, and then **Next**.
- h. On the Select Optional Configuration page, select Administration Server, Managed Servers, Clusters, and Machines, and then click **Next**.
- i. On the Configure the Administration Server page, enter listen address and the listen port of new host and click **Next**.
- j. On the Configure Managed Servers page, enter the listen addresses and the listen ports of new host for all managed servers and click **Next**.
- k. On the Configure Clusters page, click **Next**.
- l. On the Assign Servers to Clusters page, confirm the assignments and click **Next**.
- m. On the Configure Machines page, enter the listen addresses of the new hosts for any defined machines and click **Next**.
- n. On the Assign Servers to Machines page, confirm the assignments and click **Next**.
- o. On the Configuration Summary page, click **Create**.
- p. On the Creating Domain page, click **Done**.

3.5 Copy WebCenter Content Directory to the New Host

Now that the domain is created, go ahead and copy the WebCenter Content directory to the new host. Several tools are available to help you accomplish this task. In this example, we'll use `rsync` to copy from one Linux host to another.

To copy the WebCenter Content directory to the new host:

1. Run `mkdir ucm` on target host (in this example, `apphost1`) in the `DOMAINHOME` directory.
2. Copy the `DOMAINHOME/ucm` directory from the source or old host (in this example, `apphost1`) to the target or new host (in this example, `apphost1`).

```
rsync -avzh ucm/ oracle@target.domain.com:DOMAINHOME/ucm
In this example, the above command would be rsync -avzh ucm/
oracle@targetapphost1.domain.com:DOMAINHOME/ucm
```

3.6 Disable Host Name Verification

To disable host name verification:

1. Start the admin server on the target host (in this example, `apphost1`) and wait until the status shows as **RUNNING**.
2. Login to the Admin Server console. If running in production mode, click **Lock & Edit** in the Change Center.
3. Go to **Environment > Servers > AdminServer(admin)**.
4. Click the **SSL** tab, then click **Advanced**.
5. Set Hostname Verification to **None** and click **Save**.
6. Go to **Environment > Servers > your WebCenter Content server 1** (In this example, `UCM_server1`).
7. Click the **SSL** tab and then click **Advanced**.
8. Confirm Hostname Verification is set to **None** and click **Save**.
9. Go to **Environment > Servers > your WebCenter Content server 2** (In this example, `UCM_server 2`).
10. Click the **SSL** tab and then click **Advanced**.
11. Confirm Hostname Verification is set to **None** and click **Save**.
12. Go to **Environment > Servers > Oracle Inbound Refinery 1** (in this example, `IBR_server1`).
13. Click the **SSL** tab and then click **Advanced**.
14. Confirm Hostname Verification is set to **None** and click **Save**.
15. Go to **Environment > Servers > Oracle Inbound Refinery 2** (in this example, `IBR_server2`).
16. Click the **SSL** tab and click **Advanced**.
17. Confirm Hostname Verification is set to **None** and click **Save**.
18. If running in production mode, click **Activate Changes** in the Change Center.

3.7 Mount Shared File System and Adjust Configuration Settings for WebCenter Content

If WebCenter Content was migrated, mount the shared file system at this time. Instead, if it was cloned, mount the shared file system from the new location at this time.

To adjust configuration settings of the WebCenter Content node:

1. Open the `DOMAINHOME/ucm/cs/bin/intradoc.cfg` file on the new host 1 (in this example, `apphost1`) and update directory paths, if necessary.

Update the following and then save the changes:

- `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `TraceDirectory`
 - `EventDirectory`
 - `VaultTempDir`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`
2. Edit WebCenter Content's `sconfig.cfg` files to include the updated host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter`.
 3. If the load balancer's address is going to change, edit WebCenter Content's `config.cfg` on the shared file system to include the updated host name for `HttpServerAddress`.
 4. Edit your load balancer's configuration with the new backend hosts' addresses for WebCenter Content.

3.8 Verify that WebCenter Content 1 (UCM_server1) Starts on the New Host

1. On the target cluster, start the node manager on `apphost1`.
2. In the **Domain Structure**, go to **Environment > Servers**.
3. On the **Control** tab, select the check box for WebCenter Content 1 (in this example, `UCM_server1`).
4. Click **Start** and then **Yes** to confirm.
5. Above the **Servers** table, click the **refresh** arrow and note that **UCM_server1**'s state changes to **RUNNING**.

6. Open a browser and confirm that the `portal.htm` on the new `apphost1` host loads successfully.

3.9 Perform Pack and Unpack Operations to Extend the Domain to the Second Node

1. From the existing Administration Console browser tab, go to **Environment > Servers**.
2. On the **Control** tab, select the check box for WebCenter Content 1 (in this example, `UCM_server1`).
3. Click **Shutdown/Force Shutdown Now** (If Force is not used, running state issues will be experienced.)
4. Click **Yes** to confirm.
5. Above the **Servers** table, click the **refresh** arrow. Note that **UCM_server1**'s state changes to **SHUTDOWN**.
6. Stop the admin server from running in its terminal/console window.
7. From the new `apphost1`, open a terminal/console window and go to the shared file system.
8. Run the `pack` command:

```
FMW_HOME/oracle_common/common/bin/pack.sh -managed=true -domain=/u01/
oracle/user_projects/domains/cluster_domain -template=cluster.jar -
template_name="cluster_domain"
```

9. On `apphost2`, open a terminal.
10. Go to the `FMW_HOME/oracle_common/common/bin` directory and run the `unpack` command:

```
./unpack.sh -domain=/u01/oracle/user_projects/domains/cluster_domain -
template=/<SHAREDFILESYS>/cluster.jar
```

3.10 Copy WebCenter Content Directory to the New Host

Several tools are available to help you copy the WebCenter Content directory to the new host. In this example, we'll use `rsync` to copy from one Linux host to another.

To copy the WebCenter Content directory to the new host:

1. Run `mkdir ucm` on target host (in this example, `apphost2`) in the `DOMAINHOME` directory.
2. Copy the `DOMAINHOME/ucm` directory from the old/source host (in this example, `apphost2`) to the new/target host (in this example, `apphost2`).

```
rsync -avzh ucm/ oracle@targetapphost2.domain.com:DOMAINHOME/ucm
In this case, target = apphost2
```

3.11 Adjust Configuration Settings for the WebCenter Content Node

To adjust configurations settings for the WebCenter Content node:

1. Open the `DOMAINHOME/ucm/cs/bin/intradoc.cfg` file on the new host 1 (in this example, `apphost1`).
2. Update the following, if necessary, and then save the changes:
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `TraceDirectory`
 - `EventDirectory`
 - `VaultTempDir`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`

3.12 Verify that UCM_server2 Starts on the New Host

1. On the target cluster, on `apphost1`, start the admin server.
2. On the target cluster, on `apphost2`, start the node manager.
3. In the **Domain Structure**, go to **Environment > Servers**.
4. On the **Control** tab, select the check box for **UCM_server2**.
5. Click **Start**, then click **Yes** to confirm.
6. Above the **Servers** table, click the **refresh** arrow. Observe that `UCM_server2`'s state changes to **RUNNING**.
7. Open a browser and confirm that the `portal.htm` on the new `apphost2` host loads successfully.
8. From the existing Administration Console browser tab, go to **Environment > Servers**.
9. On the **Control** tab, select the check box for **UCM_server2**.
10. Click **Shutdown/Force Shutdown** (If Force is not used, running state issues will be experienced.)
11. Click **Yes** to confirm.
12. Above the **Servers** table, click the **refresh** arrow. Observe that `UCM_server2`'s state changes to **SHUTDOWN**.

3.13 Adjust Configuration Settings for Inbound Refineries

1. Open the `DOMAINHOME/ucm/ibr/config/config.cfg` file on the new host 1 (in this example, `apphost1`).
2. Provide the updated host name and port as the value for `HttpServerAddress`.
3. Provide host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter` and save the changes.
4. Open the `DOMAINHOME/ucm/ibr/bin/intradoc.cfg` file on the new host 1 (in this example, `apphost1`) and update the following and then save the changes.
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`
5. Open the `DOMAINHOME/ucm/ibr/config/config.cfg` file on the new host 2 (in this example, `apphost2`).
6. Provide the updated host name and port as the value for `HttpServerAddress`.
7. Provide host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter` and save the changes.
8. Open the `DOMAINHOME/ucm/ibr/bin/intradoc.cfg` file on the new host 2 (in this example, `apphost2`) and update the following and then save the changes.
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`

3.14 Verify that Inbound Refineries Start Successfully on New Hosts

1. In the **Domain Structure**, go to **Environment > Servers**.
2. On the **Control** tab, select the check boxes for **IBR_server1** and **IBR_server2**.
3. Click **Start** and then **Yes** to confirm.

4. Above the **Servers** table, click the **refresh** arrows. Observe that the state of `IBR_server1` and `IBR_server2` changes to **RUNNING**.
5. Confirm that you can log in successfully to both refineries.

3.15 Swap Out Executables

If the operating system has changed or directory paths have changed, you will need to replace the executables or redo the symbolic links with the proper ones. Here are a few possible scenarios.

Windows to Linux

1. Delete `.exe` files in the `DOMAINHOME/ucm/cs/bin` directory on the new Linux host.
2. In the `DOMAINHOME/ucm/cs/bin` directory, create a symbolic link to `FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh`

```
ln -s /FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

3. In the `DOMAINHOME/ucm/cs/bin` directory, create symbolic links to `DOMAINHOME/ucm/cs/bin/Launcher.sh` called:

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer
- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WebLayoutEditor
- WorkflowAdmin

Example:

```
ln -s Launcher.sh Archiver
```

4. Go to the `DOMAINHOME/ucm/cs/admin/bin` directory and delete the following items:

- IdcAdmin.exe
- IdcAdminNT.exe
- NTProcCtrl.exe

5. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

6. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the DOMAINHOME/ucm/cs/admin/bin/Launcher.sh:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

7. Repeat steps 1 through 4 for other cluster nodes in the domain.

8. If a refinery was moved, delete the .exe files in the DOMAINHOME/ucm/ibr/bin directory.

9. In the DOMAINHOME/ucm/ibr/bin directory, create a symbolic link to the FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh.

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh
```

10. In the DOMAINHOME/ucm/ibr/bin directory, create symbolic links to DOMAINHOME/ucm/ibr/bin/Launcher.sh called:

- ComponentWizard
- IdcCommand
- IdcRefinery
- Installer
- SystemProperties
- UnixProcCtrl

Example:

```
ln -s Launcher.sh ComponentWizard
```

11. Go to the DOMAINHOME/ucm/ibr/admin/bin directory and delete the following items:

- IdcAdmin.exe
- IdcAdminNT.exe
- NtProcCtrl.exe

12. Create the symbolic link for the Launcher.sh using the new location.

13. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

14. Repeat steps 8 through 13 for other refineries in the domain.

Linux to Linux

1. Go to the `DOMAINHOME/ucm/cs/bin` directory.
2. Delete the `Launcher.sh` symbolic link.
3. Create the symbolic link for the `Launcher.sh` using the new location.

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

4. Delete the items below:

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer
- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WeblayoutEditor
- WorkflowAdmin

5. Create the various symbolic links to point to the `Launcher.sh`:

```
ln -s Launcher.sh Archiver
ln -s Launcher.sh BatchLoader
ln -s Launcher.sh ComponentTool
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh ConfigurationManager
ln -s Launcher.sh IdcAnalyze
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcServer
ln -s Launcher.sh IdcShell
ln -s Launcher.sh Installer
ln -s Launcher.sh IntradocApp
ln -s Launcher.sh RepositoryManager
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
```



```
ln -s Launcher.sh UserAdmin
ln -s Launcher.sh WeblayoutEditor
ln -s Launcher.sh WorkflowAdmin
```

6. Go to the `DOMAINHOME/ucm/cs/admin/bin` **directory and delete the following items:**

- `IdcAdmin`
- `Launcher.sh`
- `UnixProcCtrl`

7. Create the symbolic link for the `Launcher.sh` **using the new location:**

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

8. Create the symbolic links for `IdcAdmin` **and** `UnixProcCtrl` **to point to the** `DOMAINHOME/ucm/cs/admin/bin/Launcher.sh`.

9. Repeat steps 1 through 5 for other content server cluster nodes in the domain.

10. Go to the `DOMAINHOME/ucm/ibr/bin` **directory and delete the** `Launcher.sh`.

11. Create the symbolic link for the `Launcher.sh` **using the new location:**

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

12. Delete the items below:

- `ComponentWizard`
- `IdcCommand`
- `IdcRefinery`
- `Installer`
- `SystemProperties`
- `UnixProcCtrl`

13. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/bin/Launcher.sh`:

```
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcRefinery
ln -s Launcher.sh Installer
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
```

14. Go to the `DOMAINHOME/ucm/ibr/admin/bin` **directory and delete the following:**

- `itemsIdcAdmin`
- `Launcher.sh`
- `UnixProcCtrl`

15. Create the symbolic link for the `Launcher.sh` **using the new location:**

```
ln -s FMWHOME/Oracle_ECM1/ucm/idc/native/Launcher.sh Launcher.sh
```

16. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

17. Repeat steps 10 through 16 for other refineries in the domain.

Linux to Windows

1. Go to the `DOMAINHOME/ucm/cs/bin` directory and delete these items:
 - Archiver
 - BatchLoader
 - ComponentTool
 - ComponentWizard
 - ConfigurationManager
 - IdcAnalyze
 - IdcCommand
 - IdcServer
 - IdcShell
 - Installer
 - IntradocApp
 - RepositoryManager
 - SystemProperties
 - UnixProcCtrl
 - UserAdmin
 - WebLayoutEditor
 - WorkflowAdmin
2. Copy the `FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/bin` directory.
3. Copy the `DOMAINHOME/ucm/cs/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/bin` directory with the following names:
 - Archiver.exe
 - BatchLoader.exe
 - ComponentTool.exe
 - ComponentWizard.exe
 - ConfigurationManager.exe
 - IdcAnalyze.exe
 - IdcCommand.exe

- IdcServer.exe
 - IdcShell.exe
 - Installer.exe
 - IntradocApp.exe
 - RepositoryManager.exe
 - SystemProperties.exe
 - UserAdmin.exe
 - WebLayoutEditor.exe
 - WorkflowAdmin.exe
4. Delete the `DOMAINHOME/ucm/cs/bin/Launcher.exe` file.
 5. Go to the `DOMAINHOME/ucm/cs/admin/bin` directory and delete these items:
 - IdcAdmin
 - Launcher.sh
 - UnixProcCtrl
 6. Copy the `FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/cs/admin/bin` directory
 7. Copy the `DOMAINHOME/ucm/cs/admin/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/admin/bin` directory with the following names:
 - IdcAdmin.exe
 - IdcAdminNT.exe
 8. Delete the `DOMAINHOME/ucm/cs/admin/bin/Launcher.exe` file.
 9. Copy the `FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/NtProcCtrl.exe` file to the `DOMAINHOME/ucm/cs/admin/bin` directory.
 10. Repeat steps 1 through 4 for other content server cluster nodes in the domain.
 11. Go to the `DOMAINHOME/ucm/ibr/bin` directory and delete these items:
 - ComponentWizard
 - IdcCommand
 - IdcRefineryInstaller
 - Launcher.sh
 - SystemProperties
 - UnixProcCtrl
 12. Copy the `FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/ibr/bin` directory.
 13. Copy the `DOMAINHOME/ucm/ibr/bin/Launcher.exe` to the `DOMAINHOME/ucm/ibr/bin` directory with the following names:
 - ComponentWizard.exe
 - IdcRefinery.exe

- IdcRefineryNT.exe
 - Installer.exe
 - SystemProperties.exe
14. Delete the DOMAINHOME/ucm/ibr/bin/Launcher.exe file.
 15. Go to the DOMAINHOME/ucm/ibr/admin/bin directory and delete these items:
 - IdcAdmin
 - Launcher.sh
 - UnixProcCtrl
 16. Copy the FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/Launcher.exe file to the DOMAINHOME/ucm/ibr/admin/bin directory.
 17. Copy the DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe to the DOMAINHOME/ucm/ibr/admin/bin directory with the following names:
 - IdcAdmin.exe
 - IdcAdminNT.exe
 18. Delete the DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe file
 19. Copy the FMWHOME/Oracle_ECm1/ucm/idc/native/windows-amd64/bin/NtProcCtrl.exe file to the DOMAINHOME/ucm/ibr/admin/bin directory.
 20. Repeat steps 11 through 19 for other refineries in the domain.

3.16 Adjust Outgoing Provider Settings for Inbound Refineries

1. In the **Domain Structure**, go to **Environment > Servers**.
2. On the **Control** tab, select the check boxes for **UCM_server1** and **UCM_server2**.
3. Click **Start** and then **Yes** to confirm.
4. Above the **Servers** table, click the **refresh** arrows. Observe that the state of **UCM_server1** and **UCM_server2** changes to **RUNNING**.
5. Log in to the WebCenter Content instance.
6. On the Administration > Providers page, for the outgoing provider connecting to the refinery on apphost1, click **Info**.
7. Click **Edit** and provide the new values for **Server Host Name** and **HTTP Server Address**.
8. Click **Update** and for the outgoing provider connecting to the refinery on apphost2, click **Info**.
9. Click **Edit** and provide the new values for **Server Host Name** and **HTTP Server Address**.
10. Click **Update**.
11. Restart the **UCM_server1** and **UCM_server2** managed servers.

3.17 Configure Security Providers

Manually port the security provider data to the domain's new location. This is required because the Domain Template Builder is an offline utility, and therefore, does not export security provider data such as embedded LDAP data, into domain templates.

Related Topics

- Porting Security Provider Data to a New Domain

3.18 Update Database Information for Standalone Java Applications

If the database location has changed:

1. From the `DOMAINHOME/ucm/cs/bin` directory of one of the cluster nodes, run the `SystemProperties` application.
2. From within the `SystemProperties` application, update the database information on the **Database** tab so that the standalone Java applications in WebCenter Content's `bin` directory can be launched successfully.

3.19 Verify That Everything Works

If you have never run any of the standalone java applications before, you need to reset the local `sysadmin` user's password using the `UserAdmin` applet and also configure the `jdbc` connection using `SystemProperties` so the standalone java applications can interact with the database and function.

To check that migration has been successful:

1. Run `IdcAnalyze` to confirm there are no errors. On the **Configuration** tab, ensure the following:
 - **Database** is selected
 - **Database** → **RevClassIDs** is selected
 - **Database** → **Clean Database** is deselected
 - **Search index** is selected
 - **Search index** → **Clean Search Index** is deselected
 - **file system** is selected
 - **Generate Report** is selected

If errors are reported, fix them as necessary.

2. Update other applications' configuration settings with the new host name for WebCenter Content.

4

Migrate Non-Clustered WebCenter Content 12c to a New Host on an Identical Infrastructure

If you would like to move a non-clustered WebCenter Content Release 12c instance to an infrastructure where Operating System and directory structure of WebCenter Content will remain the same as those on the existing infrastructure, then the topics that follow will guide you in accomplishing your goal.

Topics

- [Things to Consider Before Migrating Non-Clustered WebCenter Content Release 12c](#)
- [Migrate Non-Clustered WebCenter Content Release 12c to a New Host](#)

4.1 Things to Consider Before Migrating Non-Clustered WebCenter Content Release 12c

Things You Should Consider Before Migrating Your WebCenter Content Release 12c

- The `chghost` utility does not move binary data or data stored in a database.
- The `chghost` utility does not support environments where SSL only is configured or where either the administration port or only the SSL port is enabled.
- The same version of the JDK must be installed on the same path on both the old (source) host and the new (target) host.
- You cannot change the topology, that is, you can't add, remove, or modify managed server, the WebLogic Server domain name, port number, and so on.
- The paths of both, the source and target instances must be the same. You cannot change them.
- You can move Oracle Fusion Middleware to only the same type of Operating System.
- In a multinode environment, you can move or change the network configuration of each node separately. For example, if the administration server is on Host A and the managed servers are on Host B, you can move or change the network configuration of the administration servers, the managed servers, or both.
- The versions of Fusion Middleware Infrastructure (WebLogic Server) and WebCenter Content must match between the old host and the new host. You cannot upgrade to a newer version while you migrate to new hosts.
- If you are moving the database from one host to another, the database type must remain the same. For example, you cannot change the database type from an Oracle Database to a SQL Server database.

- For information on migrating Fusion Middleware applications such as BPM, Portal, installed on the same WebLogic domain that you're planning to move, see [Moving Oracle Fusion Middleware to a New Host](#) in *Administering Oracle Fusion Middleware*.

4.2 Migrate Non-Clustered WebCenter Content Release 12c to a New Host

This set of sample steps can help you move an instance of WebCenter Content release 12c domain to a new host without using Archiver and ConfigMigrationUtility.

Perform these steps to move WebCenter Content, Refinery, and WebCenter Content user interface to a new host in conjunction with the steps in [Moving Oracle Fusion Middleware to a New Host](#) in *Administering Oracle Fusion Middleware*.

Tasks to Perform Before Migration:

- Stop all managed servers, the admin server, and the node manager
- Back up WebCenter Content's file system
- Back up WebCenter Content's database
- If JTA Transaction Log Persistence is set to **Default Persistent Store**, back that up.
- If JMS Server Persistence is set to **JMS File Store**, back that up.
- Download and install a JDK with an appropriate version and platform on the new host.
- Download installation media for Fusion Middleware Infrastructure and WebCenter Content on the new host.
- Install Fusion Middleware Infrastructure and WebCenter Content to the same directories on the new host as they exist on the old host or use `copyBinary.sh` and `pasteBinary.sh` to clone them from the old system.
- Install any patches that were installed on the old host to the `ORACLE_HOME` on the new host. Skip this step if you processed `copyBinary.sh` and `pasteBinary.sh` as they cloned the `ORACLE_HOME` to the new host.
- If WebCenter Content's vault and weblayout are on a remote or shared disk, ensure that the file share is mounted on the new host with the same path as on the old host. Also make sure that the appropriate permissions have been granted to the file share.

To migrate WebCenter Content, Inbound Refinery, and WebCenter Content user interface:

1. Create an input file with the following code on the new host at a location such as `/tmp/myinputfile.txt`. You'll need this during migration.

```
[ARGUMENTS]
```

```
[SERVER_HOST_MAPPING]
```

```
#pattern source_host_name=target_host_name
source.domain.com=target.domain.com
```

 **Note:**

Either side of "=" could be an IP address. The left side MUST match what is presently being used in the `config.xml`, `config.cfg`, and so on on the old host. If the IP address is used in these files but the host name is used in the input file or vice versa, the `chghost.sh` script will fail when it's run later on.

2. Create a wallet directory and wallet on the new host:

- a. `mkdir /tmp/mywalletdir`
- b. `ORACLE_HOME/oracle_common/common/bin/configWallet.sh -walletDir /tmp/mywalletdir weblogic`
- c. Provide the password for the `weblogic` user when prompted

3. Create the `ORACLE_HOME/user_projects/domains` directory on the new host.**4. Create the `ORACLE_HOME/user_projects/applications` directory on the new host.****5. If you have relocated the `search` directory or the `archives` directory, also create them on the new host in an appropriate location.****6. Run `rsync` for the domain:**

```
rsync -avzh ORACLE_HOME/user_projects/domains/DOMAINNAME
          USER@target.domain.com:/ORACLE_HOME/user_projects/domains
```

7. Run `rsync` for the application:

```
rsync -avzh ORACLE_HOME/user_projects/applications/DOMAINNAME
          USER@target.domain.com:/ORACLE_HOME/user_projects/applications
```

8. Run `chghost.sh` on the new host. This following sample command must be run as a single command. Here it is split into multiple lines for clarity.

```
ORACLE_HOME/oracle_common/bin/chghost.sh
-chgHostInputFile /tmp/myinputfile.txt
-javaHome JDK_INSTALL_LOCATION
-domainLoc ORACLE_HOME/user_projects/domains/DOMAINNAME
-domainAdminUserName weblogic
-walletDir /tmp/mywalletdir
-logDir /tmp
```

9. Recreate the `boot.properties` files in the `DOMAINHOME/servers/SERVERNAME/security` directories if desired for the admin server and any managed servers. They are not available at this location after `chghost.sh` is run.**10. If a refinery was also moved, check the `DOMAINHOME/ucm/cs/data/providers/PROVIDERNAME/provider.hda` on the new host to ensure it was updated with the new host tname.****11. Edit any providers which may be pointing to this WebCenter Content instance from other WebCenter Content instances for replication purposes.****12. Install any third-party video conversion tools for video conversion with the refinery on the same paths that they were at on the old host.**

13. Start the admin server and the `WCCADF_server1` managed server.
14. In the Fusion Middleware Control, edit the `PropConnectionUrl` mBean value used for establishing the connection from the WebCenter Content user interface to the WebCenter Content instance so that it uses the new host name.
 - a. Click the **Target Navigation** icon in the upper left corner of the page to display the **Target Navigation** menu, and then select the **WCCADF_server1** managed server.
 - b. Go to the **WebLogic Server - System MBean Browser**.
 - c. Navigate to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections > WccConnection > WccAdfServerConnection**.
 - d. Update the value for `PropConnectionUrl` and click **Apply**.
 - e. Go to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections**.
 - f. On the **Operations** tab, click **Save** and then click **Invoke**.
15. Update the `SocketHostAddressSecurityFilter` configuration setting on WebCenter Content and Inbound Refinery to use the new IP address or update the `SocketHostNameSecurityFilter` configuration setting on both to use the new host name.
16. Stop the **WCCADF_server1** managed server and restart all managed servers.
17. Update the new location on other applications that connect to WebCenter Content to ensure uninterrupted operations.
18. If you're using SSL, update your SSL certificates with the new host names by importing them into the keystores of the new JDKs.
19. Run `IdcAnalyze` to verify that everything works.

5

Migrate Non-Clustered WebCenter Content 12c to a Dissimilar Infrastructure

If you are planning to move a non-clustered WebCenter Content Release 12c to an infrastructure where Operating System and the directory structure of WebCenter Content will be different from those on the existing infrastructure, then the topics that follow will guide you in accomplishing your goal.

Topics

- [Preliminary Steps for Migrating Non-Clustered WebCenter Content Release 12c](#)
- [Build a Template for an Existing Domain](#)
- [Create a New Domain](#)
- [Update JPS Configuration with New Database Information](#)
- [Copy WebCenter Content Directory to the New Host](#)
- [Mount Vault and Weblayout Directories and Adjust Configuration Settings for WebCenter Content 12c and Inbound Refinery 12c](#)
- [Start Servers and Create boot.properties Files](#)
- [Swap Out Executables](#)
- [Adjust Outgoing Provider Settings on WebCenter Content for the Inbound Refinery](#)
- [Adjust PropConnectionUrl for WebCenter Content User Interface](#)
- [Configure Security Providers](#)
- [Update Database Information for Standalone Java Applications](#)
- [Verify That Everything Works](#)

5.1 Preliminary Steps for Migrating Non-Clustered WebCenter Content Release 12c

Make sure to follow these steps before you start the migration process:

1. Stop all managed servers, the admin server, and the node manager.
2. Back up WebCenter Content file system. For detailed information, see Recommendations for WebCenter Content in *Disaster Recovery Guide*.
3. Back up WebCenter Content database using your preferred method.
4. Install the same JDK version on the new host as the one on the old host.
5. Install Fusion Middleware infrastructure's binaries to the same directory paths on the new host.
6. Install WebCenter Content's binaries on the new host.

7. Install the same patches on the new host as were applied to the old host.
8. If WebCenter Content is being migrated and the vault and weblayout directories are on a shared/remote file system, unmount them at this time.
9. If WebCenter Content is being cloned, copy the vault and weblayout directories from their old locations to their new locations.
10. Move the `ucm` directory out from the `DOMAINHOME` directory on the existing system. This directory typically includes the `vault` (`DOMAINHOME/ucm/cs/vault`) and `weblayout` directories (`DOMAINHOME/ucm/cs/weblayout`) of WebCenter Content that should not be included when the domain template is built. The domain template is written to a single `.jar` file which cannot grow to include the potential size of the `vault` and `weblayout` directories.
11. There are a few scenarios in which the database will be moving as well. One such scenario is when WebCenter Content is moving to the Oracle Cloud. A second scenario is when the database is moving to a new infrastructure for an on-premise migration. A third scenario could be that WebCenter Content is being cloned. In any of these cases, the database schemas are assumed to be available in their new database instance and reachable from the new hosts on which WebCenter Content will reside. When the Configuration Wizard (`config.sh`) is run, additional steps will need to be taken to ensure connectivity to the database schemas in their new location. There are three objects within the system schema that are required for Fusion Middleware to operate properly, especially when it comes to upgrades. These objects are: `schema_version_registry` view, `schema_version_registry` synonym, and `schema_version_registry$` table. If any of these items are missed, you must follow the steps in [Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects](#) to recreate the missing objects in the new database instance to prevent issues in the future. In addition to that, you must also include all of the schemas whose names contain the prefix that you defined for the environment in question.

5.2 Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects

The `SYSTEM.SCHEMA_VERSION_REGISTRY` schema version registry table contains version data for all the schemas. Many operations such as upgrade cannot proceed if this table is not available.

To restore lost database objects:

1. Check if the schema version registry table/view/synonym are present:
 - a. Run following database queries while connected to the repository database as user with the `sysdba` privilege
 - b. If `SYSTEM.SCHEMA_VERSION_REGISTRY$.TABLE` is present and only view/synonym is missing go to step 7.

```
column OWNER format a10
select owner, object_name, object_type from all_objects where
object_name like '%SCHEMA_VERSION_REGISTRY%';
```

```
OWNER OBJECT_NAME OBJECT_TYPE
-----
```

```
SYSTEM SCHEMA_VERSION_REGISTRY VIEW
PUBLIC SCHEMA_VERSION_REGISTRY SYNONYM
SYSTEM SCHEMA_VERSION_REGISTRY$ TABLE
```

2. Use the same version of RCU that was used to create the schemas initially. Run RCU against the existing repository and create schemas with a new PREFIX. DEV1 will be used for the rest of the steps as the new prefix.
3. Create duplicate entries in schema_version_registry by making copies of the original schemas. DEV will be used in the rest of the steps as the original prefix.
 - a. Display schema entries that RCU execution just created for DEV1.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
ROWID MRC_NAME OWNER
-----
AAASqQAABAAUmJAAA DEV1 DEV1_MDSAAASqQ
AABAAUmJAAB DEV1 DEV1_ORASDPM
AAASqQAABAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAUmJAAD DEV1 DEV1_ORABA
```

- b. Create duplicate entries in system.schema_version_registry\$ from DEV1.

```
insert into system.schema_version_registry$ select * from
system.schema_version_registry$ where mrc_name='DEV1';
```

- c. Run query to display the duplicate entries.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
```

Example:

```
ROWID MRC_NAME OWNER
-----
AAASqQAABAAUmJAAA DEV1 DEV1_MDS
AAASqQAABAAUmJAAB DEV1 DEV1_ORASDPMAAASqQ
AABAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAUmJAAD DEV1 DEV1_ORABAMAAASqQ
AABAAUmJAAE DEV1 DEV1_MDSAAASqQ
AABAAUmJAAF DEV1 DEV1_ORASDPMAAASqQ
AABAAUmJAAG DEV1 DEV1_SOAINFR
AAAASqQAABAAUmJAAH DEV1 DEV1_ORABAM
```

4. Alter the duplicate entries to match the original schema PREFIX in the MRC_NAME column. This is done by using the ROWID column to distinguish the newly created RCU entries from the duplicates just made. Note that these ROWID values will be different for your database than this example shows. Using DEV as the original schema prefix.

```
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_MDS' where rowid='AAASqQAABAAUmJAAE';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORASDPM' where rowid='AAASqQAABAAUmJAAF';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_SOAINFRA' where rowid='AAASqQAABAAUmJAAG';
```

```
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORABAM' where rowid='AAASqQAABAAUmJAAH';
```

5. Display the change showing the original prefix (DEV).

```
select mrc_name, owner, status from schema_version_registry where
mrc_name='DEV';
```

```
MRC_NAME OWNER STATUS
```

```
-----
```

```
DEV DEV_ORABAM LOADINGDEV
DEV MDS VALIDDEV
DEV ORASDPM VALIDDEV
DEV SOAINFRA VALID
```

6. Commit changes

```
commit;
```

7. Create public synonym and view for system.schema_version_registry\$.

```
create view system.schema_version_registry as select comp_id,
comp_name,mrc_name, mr_name, mr_type, owner, version, status,
upgraded, start_time,modified, edition from
system.schema_version_registry$;
```

```
create public synonym SCHEMA_VERSION_REGISTRY FOR
SYSTEM.SCHEMA_VERSION_REGISTRY;
```

8. May need to grant proper privilege to some schemas (eg. If schemas privs were lost during export/import). This step is site-specific and will depend on your situation and schemas created.

For example:

```
grant select on system.schema_version_registry to DEV_IAU ;
grant select on system.schema_version_registry to DEV_IAU_APPEND;
grant select on system.schema_version_registry to DEV_IAU_VIEWER;
grant select on system.schema_version_registry to DEV_MDS ;
grant select on system.schema_version_registry to DEV_OPSS;
```

9. Run RCU again to drop all the schemas that were created when run in Step#2 above. This will leave just the modified schema_version_registry entries for the PREFIX (Example: DEV) schemas in the system.schema_version_registry\$ table that were just added.

5.3 Build a Template for an Existing Domain

After you've performed the preliminary steps, build a template for the domain you plan to migrate on the old host and then copy it to the new host.

To build a domain template:

1. Run the Template Builder to create a domain template on the old host:

```
ORACLE_HOME/oracle_common/common/bin/config_builder.sh
```

2. In the Template Builder dialog box:
 - a. On the Template Type page:
 - Select **Create Domain Template**.
 - Select **Use Domain** as a **Source**.
 - In **Source Location**, provide the location of the domain directory whose template you're creating.
 - In **Template Location**, provide a name and location to save the new template.
 - b. On the Template Information page, confirm the values and click **Next**.
 - c. On the Template Summary page, confirm the values and click **Create**.
 - d. On the Configuration Progress page, click **Next**.
 - e. On the End of Configuration page, click **Finish**.
3. Copy the domain template you just created to the new host.

5.4 Create a New Domain

You'll create a new domain on the new host to which you're migrating your non-clustered WebCenter Content release 12c.

To create a new domain:

1. Run the Fusion Middleware Configuration wizard on the new host using the template that was just created:

```
$ORACLE_HOME/oracle_common/common/bin/config.sh
```

2. In the Fusion Middleware Configuration Wizard dialog box:
 - a. On the Create Domain page, select **Create a new domain**, provide a domain location and then click **Next**.
 - b. On the Templates page, select **Create Domain Using Custom Template**, provide a template location, and click **Next**.
 - c. On the High Availability Options page, click **Next**.
 - d. On the Application Location page, provide an application location and click **Next**.
 - e. On the Administrator Account page, provide values for Name, Password, and Confirm Password, and then click **Next**.
 - f. On the Domain Mode and JDK page, select a domain mode and JDK, click **Next**.
 - g. On the JDBC Data Sources page, do one of the following (as applicable):
 - If the database is not moving, select the **MDS datasource** and click **Next**.
 - If the database is moving, select **MDS schema**, then enter the new values for **Host Name**, **DBMS/Service**, **Port**, **Username**, and **Password**, and then click **Next**.

- h. On the JDBC Data Sources Test page, select the **mds-WCCUIMDSREPO** data source, click **Test Selected Connections**, ensure a successful test, and then click **Next**.
- i. On the Database Configuration Type page, do one of the following (as applicable):
 - If the database is not moving, select **Get RCU Configuration**, and click **Next**.
 - If the database is moving, do the following:
 - i. Enter the new values for **Host Name, DBMS/Service, Port, Schema Owner, and Schema Password**.
 - ii. Select **Get RCU Configuration** and click **Next**.
- j. On the JDBC Component Schema page, do one of the following (as applicable):
 - If the database is not moving, select the schema and click **Next**.
 - If the database is moving, enter the new values for **Host Name, DBMS/Service, Port, Schema Owner, and Schema Password** for each of the data sources and click **Next**.
- k. On the JDBC Component Schema Test page, do one of the following (as applicable):
 - Select all of the JDBC component schemas, then click **Test Selected Connections**.
 - Ensuring a successful test, click **Next**.
- l. On the Advanced Configuration page, select **Administration Server, Node Manager, Topology**, and then click **Next**.
- m. On the Administration Server page, provide an updated value for **Listen Address** and click **Next**.
- n. On the Node Manager page, confirm the details and click **Next**.
- o. On the Managed Servers page, provide an updated value for the **Listen Address** of each managed server and click **Next**.
- p. On the Clusters page, click **Next**.
- q. On the Server Templates page, click **Next**.
- r. On the Coherence Clusters page, click **Next**.
- s. On the Machines page, provide an updated value for the **Node Manager Listen Address**.
- t. On the Assign Servers to Machines page, click **Next**.
- u. On the Virtual Targets page, click **Next**.
- v. On the Partitions page, click **Next**.
- w. On the Configuration Summary page, click **Create**.
- x. On the Configuration Progress page, click **Next**.
- y. On the End of Configuration page, click **Finish**.

5.5 Update JPS Configuration with New Database Information

If the database is moving, a couple of configuration files need to be modified using the steps below. However, if the database is not moving, ignore this procedure and continue with the next that describes how to copy the UCM directory to the new host.

1. In a terminal window, go to the `DOMAINHOME/config/fmwconfig` directory on the new host.
2. In the `jps-config.xml` file, update the `jdbc.url` property with the new JDBC connection string information for the new database location and then save the changes.
3. In the `jps-config-jse.xml` file, make the following changes, and then save your changes:
 - Update the `jdbc.url` property with the new JDBC connection string information for the new database location.
 - Update the `audit.loader.jdbc.string` property with the JDBC connection string information for the new database location.

5.6 Copy WebCenter Content Directory to the New Host

A variety of tools are available to help you copy WebCenter Content directory to another host. In this example, we'll use `rsync` to copy from one Linux host to another.

1. Run `mkdir ucm` on the target host in the `DOMAINHOME` directory.
2. Copy the `DOMAINHOME/ucm` directory from the old host to the new host:

```
rsync -avzh ucm/ oracle@newhost:DOMAINHOME/ucm
```

5.7 Mount Vault and Weblayout Directories and Adjust Configuration Settings for WebCenter Content 12c and Inbound Refinery 12c

By default, both the vault and weblayout directories are located in the `DOMAINHOME/ucm/cs` directory. If you migrated WebCenter Content and the vault and weblayout directories were on some shared/remote file system, mount them at this time. But, if you cloned WebCenter Content and the vault and weblayout directories were on some shared/remote file system, mount their copies from the new location at this time.

If you moved vault and weblayout directories elsewhere, you need to edit the WebCenter Content's `DOMAINHOME/ucm/cs/bin/intradoc.cfg` file for the `VaultDir` and `WeblayoutDir` configuration entries to see what those are set to. You not only need to check the `intradoc.cfg`, but also the `MANAGEDSERVERNAME_intradoc.cfg` in the same directory, which takes precedence over the `intradoc.cfg`.

To adjust configuration settings of WebCenter Content and Refinery:

1. Edit WebCenter Content's and Refinery's `MANAGEDSERVERNAME_intradoc.cfg` and `intradoc.cfg` files with the updated directory paths, if necessary. The `intradoc.cfg` file and the `MANAGEDSERVERNAME_intradoc.cfg` file are located in the

DOMAINHOME/ucm/cs/bin directory for WebCenter Content and in the DOMAINHOME/ucm/ibr/bin directory for the Refinery.

 **Note:**

The `MANAGEDSERVERNAME_intradoc.cfg` file is available in version 11.1.1.9.0 (2016-06-24 00:16:34Z-r144917) or 12c (12.2.1.1.0) or greater.

Update the following:

- IdcHomeDir
 - FmwDomainConfigDir
 - AppServerJavaHome
 - IntradocDir
 - VaultDir
 - WeblayoutDir
 - UserProfilesDir
2. Edit WebCenter Content's and Refinery's `config.cfg` files to include the updated host name for `HttpServerAddress`. On WebCenter Content, this file is located in the `DOMAINHOME/ucm/cs/config` directory. Inbound Refinery's `config.cfg` is in the `DOMAINHOME/ucm/ibr/config` directory.
 3. Edit WebCenter Content's and Refinery's `config.cfg` files to include the updated host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter`.

5.8 Start Servers and Create boot.properties Files

Using the Admin Server and Node Manager to start the managed servers is one option. Another option is to just use the `startManagedWebLogic.sh/cmd` scripts from a terminal session.

1. Start the Admin Server on the new host.
2. Start the NodeManager on the new host.
3. Start the managed servers on the new host.
4. Create the `boot.properties` files for the Admin Server and each managed server.

5.9 Swap Out Executables

If the operating system has changed or directory paths have changed, you will need to replace the executables or redo the symbolic links with the proper ones. Here are a few possible scenarios.

Windows to Linux

1. Delete `.exe` files in the `DOMAINHOME/ucm/cs/bin` directory on the new Linux host.
2. In the `DOMAINHOME/ucm/cs/bin` directory, create a symbolic link to `FMWHOME/wccontent/ucm/idc/native/Launcher.sh`:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

3. In the `DOMAINHOME/ucm/cs/bin` directory, create symbolic links to `DOMAINHOME/ucm/cs/bin/Launcher.sh` called:

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer
- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WebLayoutEditor
- WorkflowAdmin

Example:

```
ln -s Launcher.sh Archiver
```

4. Go to the `DOMAINHOME/ucm/cs/admin/bin` directory and delete the following items:
 - `IdcAdmin.exe`
 - `IdcAdminNT.exe`
 - `NTProcCtrl.exe`
5. Create the symbolic link for the `Launcher.sh` using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

6. Create the symbolic links for `IdcAdmin` and `UnixProcCtrl` to point to the `DOMAINHOME/ucm/cs/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

7. If a refinery was moved, delete the `.exe` files in the `DOMAINHOME/ucm/ibr/bin` directory.
8. In the `DOMAINHOME/ucm/ibr/bin` directory, create a symbolic link to the `FMWHOME/wccontent/ucm/idc/native/Launcher.sh`.

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

9. In the `DOMAINHOME/ucm/ibr/bin` directory, create symbolic links to `DOMAINHOME/ucm/ibr/bin/Launcher.sh` called:

- `ComponentWizard`
- `IdcCommand`
- `IdcRefinery`
- `Installer`
- `SystemProperties`
- `UnixProcCtrl`

Example:

```
ln -s Launcher.sh ComponentWizard
```

10. Go to the `DOMAINHOME/ucm/ibr/admin/bin` directory and delete the following items:
 - `IdcAdmin.exe`
 - `IdcAdminNT.exe`
 - `NtProcCtrl.exe`
11. Create the symbolic link for the `Launcher.sh` using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

12. Create the symbolic links for `IdcAdmin` and `UnixProcCtrl` to point to the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

Linux to Linux

1. Go to the `DOMAINHOME/ucm/cs/bin` directory and delete the `Launcher.sh` symbolic link.

2. Create the symbolic link for the `Launcher.sh` using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

3. Delete the items below:

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer
- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WeblayoutEditor
- WorkflowAdmin

4. Create the various symbolic links to point to the `Launcher.sh`:

```
ln -s Launcher.sh Archiver
ln -s Launcher.sh BatchLoader
ln -s Launcher.sh ComponentTool
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh ConfigurationManager
ln -s Launcher.sh IdcAnalyze
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcServer
ln -s Launcher.sh IdcShell
ln -s Launcher.sh Installer
ln -s Launcher.sh IntradocApp
ln -s Launcher.sh RepositoryManager
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
ln -s Launcher.sh UserAdmin
ln -s Launcher.sh WeblayoutEditor
ln -s Launcher.sh WorkflowAdmin
```

5. Go to the `DOMAINHOME/ucm/cs/admin/bin` directory and delete the following items:

- IdcAdmin

- Launcher.sh
- UnixProcCtrl

6. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh
```

7. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the DOMAINHOME/ucm/cs/admin/bin/Launcher.sh.

```
ln -s Launcher.sh IdcAdmin  
ln -s Launcher.sh UnixProcCtrl
```

8. Go to the DOMAINHOME/ucm/ibr/bin directory and delete the Launcher.sh.

9. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

10. Delete the items below:

- ComponentWizard
- IdcCommand
- IdcRefinery
- Installer
- SystemProperties
- UnixProcCtrl

11. Create the symbolic links to point to the DOMAINHOME/ucm/ibr/bin/Launcher.sh:

```
ln -s Launcher.sh ComponentWizard  
ln -s Launcher.sh IdcCommand  
ln -s Launcher.sh IdcRefinery  
ln -s Launcher.sh Installer  
ln -s Launcher.sh SystemProperties  
ln -s Launcher.sh UnixProcCtrl
```

12. Go to the DOMAINHOME/ucm/ibr/admin/bin directory and delete the following items:

- IdcAdmin
- Launcher.sh
- UnixProcCtrl

13. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

14. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

Linux to Windows

1. Go to the `DOMAINHOME/ucm/cs/bin` directory and delete these items:
 - Archiver
 - BatchLoader
 - ComponentTool
 - ComponentWizard
 - ConfigurationManager
 - IdcAnalyze
 - IdcCommand
 - IdcServer
 - IdcShell
 - Installer
 - IntradocApp
 - RepositoryManager
 - SystemProperties
 - UnixProcCtrl
 - UserAdmin
 - WebLayoutEditor
 - WorkflowAdmin
2. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/bin` directory
3. Copy the `DOMAINHOME/ucm/cs/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/bin` directory with the following names:
 - Archiver.exe
 - BatchLoader.exe
 - ComponentTool.exe
 - ComponentWizard.exe
 - ConfigurationManager.exe
 - IdcAnalyze.exe
 - IdcCommand.exe
 - IdcServer.exe
 - IdcShell.exe

- Installer.exe
 - IntradocApp.exe
 - RepositoryManager.exe
 - SystemProperties.exe
 - UserAdmin.exe
 - WebLayoutEditor.exe
 - WorkflowAdmin.exe
4. Delete the DOMAINHOME/ucm/cs/bin/Launcher.exe file.
 5. Go to the DOMAINHOME/ucm/cs/admin/bin directory and delete these items:
 - IdcAdmin
 - Launcher.sh
 - UnixProcCtrl
 6. Copy the FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe file to the DOMAINHOME/ucm/cs/admin/bin directory
 7. Copy the DOMAINHOME/ucm/cs/admin/bin/Launcher.exe to the DOMAINHOME/ucm/cs/admin/bin directory with the following names:
 - IdcAdmin.exe
 - IdcAdminNT.exe
 8. Delete the DOMAINHOME/ucm/cs/admin/bin/Launcher.exe file.
 9. Copy the FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe file to the DOMAINHOME/ucm/cs/admin/bin directory.
 10. Go to the DOMAINHOME/ucm/ibr/bin directory and delete these items:
 - ComponentWizard
 - IdcCommand
 - IdcRefineryInstaller
 - Launcher.sh
 - SystemProperties
 - UnixProcCtrl
 11. Copy the FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe file to the DOMAINHOME/ucm/ibr/bin directory.
 12. Copy the DOMAINHOME/ucm/ibr/bin/Launcher.exe to the DOMAINHOME/ucm/ibr/bin directory with the following names:
 - ComponentWizard.exe
 - IdcRefinery.exe
 - IdcRefineryNT.exe
 - Installer.exe
 - SystemProperties.exe

13. Delete the `DOMAINHOME/ucm/ibr/bin/Launcher.exe` file.
14. Go to the `DOMAINHOME/ucm/ibr/admin/bin` directory and delete these items:
 - `IdcAdmin`
 - `Launcher.sh`
 - `UnixProcCtrl`
15. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/ibr/admin/bin` directory.
16. Copy the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe` to the `DOMAINHOME/ucm/ibr/admin/bin` directory with the following names:
 - `IdcAdmin.exe`
 - `IdcAdminNT.exe`
17. Delete the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe` file
18. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/NtProcCtrl.exe` file to the `DOMAINHOME/ucm/ibr/admin/bin` directory.

5.10 Adjust Outgoing Provider Settings on WebCenter Content for the Inbound Refinery

1. Log into WebCenter Content.
2. Go to the **Administration - Providers** page. For the outgoing provider connected to the refinery, click **Info** and then click **Edit**.
3. Provide the new values for Server Host Name and HTTP Server Address, and click **Update**.
4. Restart the managed server for WebCenter Content.

5.11 Adjust PropConnectionUrl for WebCenter Content User Interface

1. In the Fusion Middleware Control, edit the `PropConnectionUrl` `mBean` value used for establishing the connection from the WebCenter Content user interface to the WebCenter Content instance so that it uses the new host name.
 - a. Select the **WCCADF_server1** managed server from the hamburger menu navigation bar in the upper left corner of the page.
 - b. Go to the **WebLogic Server - System MBean Browser**.
 - c. Navigate to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections > WccConnection > WccAdfServerConnection**.
 - d. Update the value for **PropConnectionUrl** and click **Apply**.

- e. Go to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections**.
 - f. On the **Operations** tab, click **Save** and then click **Invoke**.
2. Restart the managed server for the WebCenter Content user interface.

5.12 Configure Security Providers

Manually port the security provider data to the domain's new location.

This is required because the Domain Template Builder is an offline utility, and therefore, does not export security provider data such as embedded LDAP data, into domain templates. For more information, see *Porting Security Provider Data to a New Domain*.

5.13 Update Database Information for Standalone Java Applications

If the database location has changed:

1. From the `DOMAINHOME/ucm/cs/bin` directory, run the `SystemProperties` application.
2. From within the `SystemProperties` application, update the database information on the **Database** tab so that the standalone Java applications in WebCenter Content's bin directory can be launched successfully.

5.14 Verify That Everything Works

If you have never run any of the standalone java applications before, you need to reset the local sysadmin user's password using the `UserAdmin` applet and also configure the `jdbc` connection using `SystemProperties` so the standalone java applications can interact with the database and function.

To check that migration has been successful:

1. Run `IdcAnalyze` to confirm there are no errors. On the **Configuration** tab, ensure the following:
 - **Database** is selected
 - **Database** → **RevClassIDs** is selected
 - **Database** → **Clean Database** is deselected
 - **Search index** is selected
 - **Search index** → **Clean Search Index** is deselected
 - **file system** is selected
 - **Generate Report** is selected

For information, see *Using the Content Server Analyzer in Administering Oracle WebCenter Content*.

If errors are reported, fix them as necessary.

2. Update other applications' configuration settings with the new host name for WebCenter Content.

6

Migrate Clustered WebCenter Content 12c to New Hosts on an Identical Infrastructure

If you would like to move clusters of WebCenter Content Release 12c to an infrastructure where Operating System and directory structure of WebCenter Content will remain the same as those on the existing infrastructure, then the topics that follow will guide you in accomplishing your goal.

Topics

- [Things to Consider Before Migrating Clustered WebCenter Content Release 12c](#)
- [Migrate Clustered WebCenter Content Release 12c to a New Host](#)

6.1 Things to Consider Before Migrating Clustered WebCenter Content Release 12c

Things to Consider Before Migrating Your WebCenter Content Release 12c

- The `chghost` utility does not move binary data or data in a database.
- The `chghost` utility does not support environments where SSL only is configured. SSL-only means that either the administration port is enabled or only the SSL port is enabled.
- The same version of the JDK is installed on the same path on both the old (source) host and the new (target) host.
- You cannot change the topology, that is, you can't add, remove, or modify managed server, the WebLogic Server domain name, port number, and so on.
- The paths of both, the source and target instances must be the same. You cannot change them.
- You move Oracle Fusion Middleware to only the same type of operating system.
- In a multinode environment, you can move or change the network configuration of each node separately. For example, if the administration server is on Host A and the managed servers are on Host B, you can move or change the network configuration of the administration servers, the managed servers, or both.
- The versions of Fusion Middleware Infrastructure (WebLogic Server) and WebCenter Content must match between the old host and the new host. Using these instructions, you cannot upgrade to a newer version at the same time you migrate to new hosts.
- If you are moving the database from one host to another, the database type must remain the same. For example, you cannot change the database type from an Oracle Database to a SQL Server database.
- For information on migrating Fusion Middleware applications such as BPM, Portal, installed on the same WebLogic domain that you're planning to move, see [Moving Oracle Fusion Middleware to a New Host](#) in *Administering Oracle Fusion Middleware*.

6.2 Migrate Clustered WebCenter Content Release 12c to a New Host

This topic demonstrates through a sample scenario how you can move WebCenter Content release 12c clusters to a new host without using Archiver and ConfigMigrationUtility.

Perform these steps to move WebCenter Content, Refinery, and WebCenter Content user interface to a new host in conjunction with the steps in [Moving Oracle Fusion Middleware to a New Host](#) in *Administering Oracle Fusion Middleware*.

Tasks to Perform Before Migration:

- Stop all managed servers, the admin server, and the node manager.
- Back up WebCenter Content's file system.
- Back up WebCenter Content's database.
- If JTA Transaction Log Persistence is set to **Default Persistent Store**, back that up.
- If JMS Server Persistence is set to **JMS File Store**, back that up.
- Download and install a JDK with an appropriate version and platform on the new host.
- Download installation media for Fusion Middleware Infrastructure and WebCenter Content on the new host.
- Install Fusion Middleware Infrastructure and WebCenter Content to the same directories on the new host as they exist on the old host or use `copyBinary.sh` and `pasteBinary.sh` to clone them from the old system.
- Install any patches that were installed on the old host to the `ORACLE_HOME` on the new host. Skip this step if you processed `copyBinary.sh` and `pasteBinary.sh` are run to clone the `ORACLE_HOME` to the new host.
- If WebCenter Content's vault and weblayout are on a remote or shared disk, ensure that the file share is mounted on the new host with the same path as on the old host. Also make sure that the appropriate permissions have been granted to the user for accessing the file share.

To migrate clusters of WebCenter Content, Inbound Refinery, WebCenter Content user interface, and Oracle HTTP Server:

1. Create an input file with the following code on the new host at a location such as `/tmp/myinputfile.txt`. You'll need this during migration.

```
[ARGUMENTS]
[SERVER_HOST_MAPPING]
#pattern source_host_name=target_host_name
sourcenode1.domain.com=targetnode1.domain.com
sourcenode2.domain.com=targetnode2.domain.com
```

2. On each of the new hosts, create a wallet directory and wallet:
 - a. `mkdir /tmp/mywalletdir`

- b. `ORACLE_HOME/oracle_common/common/bin/configWallet.sh -walletDir /tmp/mywalletdir weblogic`
- c. Provide the password for the `weblogic` user when prompted
3. Create the `ORACLE_HOME/user_projects/domains` directory on the new hosts.
4. Create the `ORACLE_HOME/user_projects/applications` directory on the new hosts.
5. If you relocated the `search` directory or the `archives` directory, create them on the new hosts and make sure that they are accessible.
6. For each node, run `rsync` for the domain:

Run from **sourcenode1**:

```
rsync -avzh ORACLE_HOME/user_projects/domains/DOMAINNAME
USER@targetnode1.domain.com:/ORACLE_HOME/user_projects/domains
```

Run from **sourcenode2**:

```
rsync -avzh ORACLE_HOME/user_projects/domains/DOMAINNAME
USER@targetnode2.domain.com:/ORACLE_HOME/user_projects/domains
```

7. For each node, run `rsync` for the application:

Run from **sourcenode1**:

```
rsync -avzh ORACLE_HOME/user_projects/applications/DOMAINNAME
USER@targetnode1.domain.com:/ORACLE_HOME/user_projects/applications
```

Run from **sourcenode2**:

```
rsync -avzh ORACLE_HOME/user_projects/applications/DOMAINNAME
USER@targetnode2.domain.com:/ORACLE_HOME/user_projects/applications
```

8. To make sure `chghost.sh` runs correctly, first set an environment variable on `targetnode1.domain.com`:

```
export CHGHOST_JAVA_OPTIONS="-Dchghost.ignore.validation.port=true
-Dchghost.temporary.port.range=18000-20000"
```

If you skip this step, you would encounter messages such as the ones below and `chghost.sh` will fail.

```
INFO: Checking if ports are unique across all server or not ...
Oct 31, 2019 9:52:58 AM
oracle.glcm.fmw.chghost.framework.input.ChghostInputValidation
isValidServerPortsSEVERE:
[CHGHOST-20218-ERROR] Server ports validation failed.
[CHGHOST-20218-CAUSE] The port 16225 was used for multiple servers.
[CHGHOST-20218-ACTION] Provide different free ports for servers.
Oct 31, 2019 9:52:58 AM
oracle.glcm.fmw.chghost.framework.input.ChghostInputValidation
isValidServerPortsSEVERE:
```

```
[CHGHOST-20218-ERROR] Server ports validation failed.
[CHGHOST-20218-CAUSE] The port 16250 was used for multiple servers.
[CHGHOST-20218-ACTION] Provide different free ports for servers.
Oct 31, 2019 9:52:58 AM
oracle.glcm.fmw.chghost.framework.input.ChghostInputValidation
    isValidServerPortsSEVERE:
[CHGHOST-20218-ERROR] Server ports validation failed.
[CHGHOST-20218-CAUSE] The port 16200 was used for multiple servers.
[CHGHOST-20218-ACTION] Provide different free ports for servers.
Oct 31, 2019 9:52:58 AM
oracle.glcm.fmw.chghost.framework.execute.ChangeHostExecute
    executeINFO: Server port validation failed
```

9. Run `chghost.sh` on `targetnode1.domain.com`. The following sample code should be run as a single command. Here it's split into multiple lines for clarity.

```
ORACLE_HOME/oracle_common/bin/chghost.sh
-chgHostInputFile /refresh/ucmshare/myinputfile.txt
-javaHome JDK_INSTALL_LOCATION
-domainLoc ORACLE_HOME/user_projects/domains/DOMAINNAME
-domainAdminUserName weblogic
-walletDir /refresh/home/mywalletdir
-logDir /tmp
```

10. On `targetnode1.domain.com`, recreate the `boot.properties` files in the `DOMAINHOME/servers/SERVERNAME/security` directories if desired for the admin server and any managed servers. They are no longer available after `chghost.sh` is run.
11. To make sure `chghost.sh` runs correctly, first set an environment variable on `targetnode2.domain.com`:

```
export CHGHOST_JAVA_OPTIONS="-Dchghost.ignore.validation.port=true
-Dchghost.temporary.port.range=18000-20000"
```

12. Edit the following `.xml` files to prevent occurrences of `java.lang.NullPointerException` on `targetnode2.domain.com` at the time of running the `chghost.sh` script.

- a. `MW_HOME/oracle_common/plugins/chghost/libovd_chghost_metadata.xml`:

Before:

```
<chghost-metadata component-id="LIBOVD">
  <file-list>
    <file-entry location="%DOMAIN_HOME%/config/
fmwconfig/ovd/*/adapters.os_xml">
      <replace-pattern-ref
ref="hostReplacePattern"/>
    </file-entry>
  </file-list>
  <replace-pattern-list>
    <replace-pattern id="hostReplacePattern"
regex=".*host.*"/>
  </replace-pattern-list>
</chghost-metadata>
```

```

        </replace-pattern-list>
</chghost-metadata>

```

After:

```

<chghost-metadata component-id="LIBOVD">
  <file-list>
    <file-entry location="%DOMAIN_HOME%/config/fmwconfig/ovd/*/
adapters.os_xml" update-in-managed-mode="false">
      <replace-pattern-ref ref="hostReplacePattern"/>
    </file-entry>
  </file-list>
  <replace-pattern-list>
    <replace-pattern id="hostReplacePattern"
regex=".*host.*"/>
  </replace-pattern-list>
</chghost-metadata>

```

- b. MW_HOME/oracle_common/plugins/chghost/opss_chghost_metadata.xml:

Before:

```

<?xml version="1.0"?>
<chghost-metadata component-id="OPSS">
<file-list>
<file-entry location="%DOMAIN_HOME%/config/fmwconfig/jps-config.xml">
  <replace-host-type>DATABASE_MAPPING</replace-host-type>
  <replace-host-type>LDAP_MAPPING</replace-host-type>
</file-entry>

<file-entry location="%DOMAIN_HOME%/config/fmwconfig/jps-config-
jse.xml">
  <replace-host-type>DATABASE_MAPPING</replace-host-type>
  <replace-host-type>LDAP_MAPPING</replace-host-type>
</file-entry>

</file-list>
</chghost-metadata>

```

After:

```

<?xml version="1.0"?>
<chghost-metadata component-id="OPSS">
<file-list>
<file-entry location="%DOMAIN_HOME%/config/fmwconfig/jps-config.xml"
update-in-managed-mode="false">
  <replace-host-type>DATABASE_MAPPING</replace-host-type>
  <replace-host-type>LDAP_MAPPING</replace-host-type>
</file-entry>

<file-entry location="%DOMAIN_HOME%/config/fmwconfig/jps-config-
jse.xml" update-in-managed-mode="false">
  <replace-host-type>DATABASE_MAPPING</replace-host-type>
  <replace-host-type>LDAP_MAPPING</replace-host-type>

```

```

</file-entry>

</file-list>
</chghost-metadata>

```

- MW_HOME/ohs/plugins/chghost/ohs_chghost_metadata.xml:

Before:

```

<?xml version="1.0"?>
<chghost-metadata component-id="OHS">
<file-list>
  <!-- All file-entry location are w.r.to DOMAIN_HOME -->
<file-entry location="%DOMAIN_HOME%/config/fmwconfig/
components/OHS/*/*/*.*">
<replace-pattern-ref ref="id1"/>
<replace-pattern-ref ref="id2"/>
<replace-pattern-ref ref="id3"/>
<replace-pattern-ref ref="id4"/>
<replace-pattern-ref ref="id5"/>
<replace-pattern-ref ref="id6"/>
<replace-pattern-ref ref="id7"/>
</file-entry>
<file-entry location="%DOMAIN_HOME%/config/fmwconfig/
components/OHS/*/*/*.*">
<replace-pattern-ref ref="id1"/>
<replace-pattern-ref ref="id2"/>
<replace-pattern-ref ref="id3"/>
<replace-pattern-ref ref="id4"/>
<replace-pattern-ref ref="id5"/>
<replace-pattern-ref ref="id6"/>
<replace-pattern-ref ref="id7"/>
</file-entry>
</file-list>
<replace-pattern-list>
<replace-pattern id="id1" regex=".*Listen.*"/>
<replace-pattern id="id2" regex=".*VirtualHost.*"/>
<replace-pattern id="id3" regex=".*ServerName.*"/>
<replace-pattern id="id4" regex=".*WebLogicHost.*"/>
<replace-pattern id="id5" regex=".*ServerAdmin.*"/>
<replace-pattern id="id6" regex=".*WebLogicCluster.*"/>
<replace-pattern id="id7" regex=".*Allow.*"/>
</replace-pattern-list>
</chghost-metadata>

```

After:

```

<?xml version="1.0"?>
<chghost-metadata component-id="OHS">
<file-list>
  <!-- All file-entry location are w.r.to DOMAIN_HOME -->
<file-entry location="%DOMAIN_HOME%/config/fmwconfig/
components/OHS/*/*/*.*" update-in-managed-mode="false">
<replace-pattern-ref ref="id1"/>
<replace-pattern-ref ref="id2"/>

```



```

<replace-pattern-ref ref="id3"/>
<replace-pattern-ref ref="id4"/>
<replace-pattern-ref ref="id5"/>
<replace-pattern-ref ref="id6"/>
<replace-pattern-ref ref="id7"/>
</file-entry>
<file-entry location="%DOMAIN_HOME%/config/fmwconfig/components/OHS/*/*.*" update-in-managed-mode="false">
<replace-pattern-ref ref="id1"/>
<replace-pattern-ref ref="id2"/>
<replace-pattern-ref ref="id3"/>
<replace-pattern-ref ref="id4"/>
<replace-pattern-ref ref="id5"/>
<replace-pattern-ref ref="id6"/>
<replace-pattern-ref ref="id7"/>
</file-entry>
</file-list>
<replace-pattern-list>
<replace-pattern id="id1" regex=".*Listen.*"/>
<replace-pattern id="id2" regex=".*VirtualHost.*"/>
<replace-pattern id="id3" regex=".*ServerName.*"/>
<replace-pattern id="id4" regex=".*WebLogicHost.*"/>
<replace-pattern id="id5" regex=".*ServerAdmin.*"/>
<replace-pattern id="id6" regex=".*WebLogicCluster.*"/>
<replace-pattern id="id7" regex=".*Allow.*"/>
</replace-pattern-list>
</chghost-metadata>

```

If these changes are not made, errors similar to those below will occur, and you'll need to edit these XMLs and rerun the `chghost.sh` script:

```

INFO: Invoking file fixing for chghost metadata registration file /
refresh/home/Oracle/Middleware/Oracle_Home2/oracle_common/plugins/
chghost/opss_chghost_metadata.xml
java.lang.NullPointerException
    at
oracle.glcm.fmw.chghost.framework.plugin.impl.chghost.ChghostMetadataP
luginExecutorImpl.replaceInFile (ChghostMetadataPluginExecutorImpl.java
:152)
    at
oracle.glcm.fmw.chghost.framework.plugin.impl.chghost.ChghostMetadataP
luginExecutorImpl.executeChghostPlugin (ChghostMetadataPluginExecutorIm
pl.java:142)
    at
oracle.glcm.fmw.chghost.framework.plugin.impl.chghost.ChghostMetadataP
luginExecutorImpl.executePlugin (ChghostMetadataPluginExecutorImpl.java
:119)
    at
oracle.glcm.fmw.chghost.framework.process.helper.PluginExecutionHelper
.executePluginInfoObject (PluginExecutionHelper.java:140)
    at
oracle.glcm.fmw.chghost.framework.process.PluginExecution.executeAllPl
ugins (PluginExecution.java:86)
    at

```

```

oracle.glcm.fmw.chghost.framework.execute.ChangeHostExecute.execute(ChangeHostExecute.java:130)
    at
oracle.glcm.fmw.chghost.Chghost.executeChghostCommand(Chghost.java:277)
    at oracle.glcm.fmw.chghost.Chghost.main(Chghost.java:301)

INFO: Invoking file fixing for chghost metadata registration
file /refresh/home/Oracle/Middleware/Oracle_Home2/ohs/plugins/chghost/ohs_chghost_metadata.xml
java.lang.NullPointerException
    at
oracle.glcm.fmw.chghost.framework.plugin.impl.chghost.ChghostMetadataPluginExecutorImpl.replaceInFile(ChghostMetadataPluginExecutorImpl.java:152)
    at
oracle.glcm.fmw.chghost.framework.plugin.impl.chghost.ChghostMetadataPluginExecutorImpl.executeChghostPlugin(ChghostMetadataPluginExecutorImpl.java:142)
    at
oracle.glcm.fmw.chghost.framework.plugin.impl.chghost.ChghostMetadataPluginExecutorImpl.executePlugin(ChghostMetadataPluginExecutorImpl.java:119)
    at
oracle.glcm.fmw.chghost.framework.process.helper.PluginExecutionHelper.executePluginInfoObject(PluginExecutionHelper.java:140)
    at
oracle.glcm.fmw.chghost.framework.process.PluginExecution.executeAllPlugins(PluginExecution.java:86)
    at
oracle.glcm.fmw.chghost.framework.execute.ChangeHostExecute.execute(ChangeHostExecute.java:130)
    at
oracle.glcm.fmw.chghost.Chghost.executeChghostCommand(Chghost.java:277)
    at oracle.glcm.fmw.chghost.Chghost.main(Chghost.java:301)

```

- 13.** Run `chghost.sh` on `targetnode2.domain.com`. Note that this script has two more parameters that didn't exist when you ran this script on `targetnode1.domain.com`. These parameters inform the script about the admin server's location and that the script needs to work with managed servers on this target. Run the following sample as a single command. Here it's split into multiple lines for clarity.

```

ORACLE_HOME/oracle_common/bin/chghost.sh
-chgHostInputFile /refresh/ucmshare/myinputfile.txt
-javaHome JDK_INSTALL_LOCATION
-domainLoc ORACLE_HOME/user_projects/domains/DOMAINNAME
-domainAdminUserName weblogic
-walletDir /refresh/home/mywalletdir
-logDir /tmp
-adminURL t3://targetnode1.domain.com:7001
-managed

```

14. On `targetnode2.domain.com`, recreate the `boot.properties` files in the `DOMAINHOME/servers/SERVERNAME/security` directories if desired for any managed servers. They are no longer available after `chghost.sh` is run.
15. On `targetnode2.domain.com`, open the `DOMAINHOME/config/fmwconfig/components/OHS/ohs_2/mod_wl_ohs.conf` file and update it to include the new hosts for `targetnode1.domain.com` and `targetnode2.domain.com`.
16. On `targetnode2.domain.com`, do the same in the `DOMAINHOME/config/fmwconfig/components/OHS/instances/ohs_2/mod_wl_ohs.conf` file.
17. Go to the `DOMAINHOME/data/providers` directory on the shared file system of WebCenter Content.
18. Verify that the providers to any refineries have the updated host name in the `HttpServerAddress`. If any providers contain an incorrect value, correct them as necessary.
19. Verify for any refinery that its `DOMAINHOME/ucm/ibr/config/config.cfg` on the local file system has the correct `HttpServerAddress` value for the new host.
20. Start the node manager on `targetnode1.domain.com` and `targetnode2.domain.com`.
21. Log in to the Admin Server console and start the managed servers.
22. Log in to WebCenter Content and verify that the providers work as expected.
23. Adjust your load balancer's configuration for the new backend hosts for WebCenter Content.
24. If your load balancer has changed, log into the Fusion Middleware Control and edit the `PropConnectionUrl` mBean value used for establishing the connection from the WebCenter Content user interface to the WebCenter Content so that this value uses the new address for your load balancer.
 - a. From the menu in the upper left corner of the page, select the **WCCADF_server1** managed server and go **WebLogic Server - System MBean Browser**.
 - b. Navigate to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections > WccConnection > WccAdfServerConnection**.
 - c. Update the value for **PropConnectionUrl** and click **Apply**.
 - d. Go to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections**.
 - On the **Operations** tab, click **Save** and then click **Invoke**.
25. Update the `SocketHostAddressSecurityFilter` configuration setting on WebCenter Content and Inbound Refinery to use the new IP addresses, or update the `SocketHostNameSecurityFilter` configuration setting on both to use the new host names.
26. If your load balancer's address has changed, update the `HttpServerAddress` value in the `DOMAINHOME/ucm/cs/config/config.cfg` file on WebCenter Content's shared file system.
27. Restart all managed servers.
28. Update other applications that connect to WebCenter Content for uninterrupted operations.

29. If you're using SSL, update your SSL certificates with the new host names by importing them into the keystores of the new JDKs.
30. Run `IdcAnalyze` to verify that everything works.

7

Migrate Clustered WebCenter Content 12c to New Hosts on a Dissimilar Infrastructure

If you would like to move clusters of WebCenter Content Release 12c to an infrastructure where Operating System and directory structure of WebCenter Content will differ from those on the existing infrastructure, then the topics that follow will guide you in accomplishing your goal.



Note:

The versions of WebLogic Server and WebCenter Content must match between the old hosts and the new hosts. The following topics DO NOT include instructions for upgrading to a newer version but for migrating current setup of WebCenter Content. To migrate other Oracle products from the existing infrastructure such as WebCenter Portal or BPM, make sure to take in account the required instructions. These topics focus only on migrating WebCenter Content.

Topics

- [Preliminary Steps for Migrating Clustered WebCenter Content 12c to a Dissimilar Infrastructure](#)
- [Build a Template for an Existing Domain](#)
- [Create a New Domain](#)
- [Update JPS Configuration with New Database Information](#)
- [Disable Host Name Verification](#)
- [Mount Shared File System and Adjust Configuration Settings for WebCenter Content](#)
- [Verify that UCM_server1 Starts on the New Host](#)
- [Perform Pack and Unpack Operations to Extend the Domain to the Second Node](#)
- [Copy WebCenter Content Directory to the New Host](#)
- [Adjust Configuration Settings for WebCenter Content](#)
- [Verify that UCM_server2 Starts on the New Host](#)
- [Adjust Configuration Settings for Inbound Refineries](#)
- [Verify that Inbound Refineries Start Successfully on New Hosts](#)
- [Swap Out Executables](#)
- [Adjust Outgoing Provider Settings for Inbound Refineries](#)
- [Adjust Configuration Settings for WebCenter Content User Interface](#)
- [Configure Oracle HTTP Server](#)
- [Configure Security Providers](#)

- [Update Database Information for Standalone Java Applications](#)
- [Verify That Everything Works](#)

7.1 Preliminary Steps for Migrating Clustered WebCenter Content 12c to a Dissimilar Infrastructure

Make sure to follow these steps before you start the migration process:

1. Stop all managed servers, the admin server, and the node manager.
2. Back up WebCenter Content file system.
3. Back up WebCenter Content's database.
4. Install the same JDK version on the new host as the one on the old host.
5. Install WebLogic Server's binaries on the new host.
6. Install WebCenter Content's binaries on the new host.
7. Install the same patches on the new host as were applied to the old host.
8. If WebCenter Content is being migrated, detach/unmount the shared file system from the old hosts.
9. If WebCenter Content is being cloned, detach/unmount the shared file system from the old hosts and also copy the shared file system to its new location.
10. There are a few scenarios in which the database will be moving as well. One such scenario is when WebCenter Content is moving to the Oracle Cloud. A second scenario is when the database is moving to a new infrastructure for an on-premise migration. A third scenario could be that WebCenter Content is being cloned. In any of these cases, the database schemas are assumed to be available in their new database instance and reachable from the new hosts on which WebCenter Content will reside. When the Configuration Wizard (`config.sh`) is run, additional steps will need to be taken to ensure connectivity to the database schemas in their new location. There are three objects within the system schema that are required for Fusion Middleware to operate properly, especially when it comes to upgrades. These objects are: `schema_version_registry` view, `schema_version_registry` synonym, and `schema_version_registry$` table. If any of these items are missed, you must follow the steps in [Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects](#) to recreate the missing objects in the new database instance to prevent issues in the future. In addition to that, you must also include all of the schemas whose names contain the prefix that you defined for the environment in question.

7.2 Recover Lost RCU Database SYSTEM.SCHEMA_VERSION_REGISTRY Objects

The `SYSTEM.SCHEMA_VERSION_REGISTRY` schema version registry table contains version data for all the schemas. Many operations such as upgrade cannot proceed if this table is not available.

To restore lost database objects:

1. Check if the schema version registry table/view/synonym are present:

- a. Run following database queries while connected to the repository database as user with the `sysdba` privilege
- b. If `SYSTEM.SCHEMA_VERSION_REGISTRY$.TABLE` is present and only view/synonym is missing go to step 7.

```
column OWNER format a10
select owner, object_name, object_type from all_objects where
object_name like '%SCHEMA_VERSION_REGISTRY%';
```

```
OWNER OBJECT_NAME OBJECT_TYPE
-----
SYSTEM SCHEMA_VERSION_REGISTRY VIEW
PUBLIC SCHEMA_VERSION_REGISTRY SYNONYM
SYSTEM SCHEMA_VERSION_REGISTRY$ TABLE
```

2. Use the same version of RCU that was used to create the schemas initially. Run RCU against the existing repository and create schemas with a new PREFIX. DEV1 will be used for the rest of the steps as the new prefix.
3. Create duplicate entries in `schema_version_registry` by making copies of the original schemas. DEV will be used in the rest of the steps as the original prefix.
 - a. Display schema entries that RCU execution just created for DEV1.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
ROWID MRC_NAME OWNER
-----
```

```
AAASqQAABAAAUmJAAA DEV1 DEV1_MDSAAASqQ
AABAAAUmJAAB DEV1 DEV1_ORASDPM
AAASqQAABAAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAD DEV1 DEV1_ORABA
```

- b. Create duplicate entries in `system.schema_version_registry$` from DEV1.

```
insert into system.schema_version_registry$ select * from
system.schema_version_registry$ where mrc_name='DEV1';
```

- c. Run query to display the duplicate entries.

```
select rowid, mrc_name, owner from system.schema_version_registry$;
```

Example:

```
ROWID MRC_NAME OWNER
-----
AAASqQAABAAAUmJAAA DEV1 DEV1_MDS
AAASqQAABAAAUmJAAB DEV1 DEV1_ORASDPM
AABAAAUmJAAC DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAD DEV1 DEV1_ORABAM
AABAAAUmJAAE DEV1 DEV1_MDSAAASqQ
AABAAAUmJAAF DEV1 DEV1_ORASDPM
AABAAAUmJAAG DEV1 DEV1_SOAINFR
AAAASqQAABAAAUmJAAH DEV1 DEV1_ORABAM
```

- Alter the duplicate entries to match the original schema PREFIX in the `MRC_NAME` column. This is done by using the `ROWID` column to distinguish the newly created RCU entries from the duplicates just made. Note that these `ROWID` values will be different for your database than this example shows. Using `DEV` as the original schema prefix.

```
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_MDS' where rowid='AAASqQAABAAUmJAAE';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORASDPM' where rowid='AAASqQAABAAUmJAAF';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_SOAINFRA' where rowid='AAASqQAABAAUmJAAG';
update system.schema_version_registry$ set mrc_name='DEV',
owner='DEV_ORABAM' where rowid='AAASqQAABAAUmJAAH';
```

- Display the change showing the original prefix (`DEV`).

```
select mrc_name, owner, status from schema_version_registry where
mrc_name='DEV';
```

```
MRC_NAME OWNER STATUS
-----
```

```
DEV DEV_ORABAM LOADINGDEV
DEV_MDS VALIDDEV
DEV_ORASDPM VALIDDEV
DEV_SOAINFRA VALID
```

- Commit changes

```
commit;
```

- Create public synonym and view for `system.schema_version_registry$`.

```
create view system.schema_version_registry as select comp_id,
comp_name,mrc_name, mr_name, mr_type, owner, version, status,
upgraded, start_time,modified, edition from
system.schema_version_registry$;
```

```
create public synonym SCHEMA_VERSION_REGISTRY FOR
SYSTEM.SCHEMA_VERSION_REGISTRY;
```

- May need to grant proper privilege to some schemas (eg. If schemas privs were lost during export/import). This step is site-specific and will depend on your situation and schemas created.

For example:

```
grant select on system.schema_version_registry to DEV_IUA ;
grant select on system.schema_version_registry to DEV_IUA_APPEND;
grant select on system.schema_version_registry to DEV_IUA_VIEWER;
grant select on system.schema_version_registry to DEV_MDS ;
grant select on system.schema_version_registry to DEV_OPSS;
```


9. Run RCU again to drop all the schemas that were created when run in Step#2 above. This will leave just the modified `schema_version_registry` entries for the PREFIX (Example: DEV) schemas in the `system.schema_version_registry` table that were just added.

7.3 Build a Template for an Existing Domain

After you've performed the preliminary steps, build a template for the domain you plan to migrate.

To build a template:

1. Run the Template Builder on the host on which the admin server is running (in this example, `apphost1`).

```
$ORACLE_HOME/oracle_common/common/bin/config_builder.sh
```

2. In the Template Builder dialog box:
 - a. On the Template Type page, select **Create Domain Template** and **Use Domain as a Source**, for **Source Location**, provide the directory of the domain for which you're creating this template, for **Template Location**, provide a name and location to save the new template.
 - b. On the Template Information page, confirm the values and click **Next**.
 - c. On the Template Summary page, confirm the values and click **Create**.
 - d. On the Configuration Progress page, click **Next**.
 - e. On the End of Configuration page, click **Finish**.
3. Copy the domain template that was just created to the new host on which the new admin server will reside.

7.4 Create a New Domain

You've created the domain template and copied it to the new host to which you are migrating your clustered WebCenter Content 12c instance. Now create a new domain on the new host.

To create a new domain:

1. Run the Fusion Middleware Configuration wizard on the new host using the template that was just created:

```
$ORACLE_HOME/oracle_common/common/bin/config.sh
```

2. In the Fusion Middleware Configuration Wizard dialog box:
 - a. On the Create Domain page, select **Create a new domain**, provide a domain location and then click **Next**.
 - b. On the Templates page, select **Create Domain Using Custom Template**, provide a template location, and click **Next**.
 - c. On the Application Location page, provide an application location and click **Next**.
 - d. On the Administrator Account page, provide values for Name, Password, and Confirm Password, and then click **Next**.

- e. On the Domain Mode and JDK page, select a domain mode and JDK, click **Next**.
- f. On the JDBC Data Sources page, do one of the following (as applicable):
 - If the database is not moving, select the **MDS datasource** and click **Next**.
 - If the database is moving, select **MDS schema**, then enter the new values for **Host Name, DBMS/Service, Port, Username, and Password**, and then click **Next**.
- g. On the JDBC Data Sources Test page, select the **mds-WCCUIMDSREPO** data source, then click **Test Selected Connections**. Ensure a successful test and then click **Next**.
- h. On the Database Configuration Type page, do one of the following (as applicable):
 - If the database is not moving, select **Get RCU Configuration**, and click **Next**.
 - If the database is moving, do the following:
 - i. Enter the new values for **Host Name, DBMS/Service, Port, Schema Owner, and Schema Password**.
 - ii. Select **Get RCU Configuration** and click **Next**.
- i. On the JDBC Component Schema page, do one of the following (as applicable):
 - If the database is not moving, select the schema and click **Next**.
 - If the database is moving, enter the new values for **Host Name, DBMS/Service, Port, Schema Owner, and Schema Password** for each of the data sources and click **Next**.

 **Note:**

If multiple data sources are selected on this page, then the value can be changed for the same field at the same time for all of the selected data sources.

- j. On the JDBC Component Schema Test page, do one of the following (as applicable):
 - Select all connections/component schemas, then click **Test Selected Connections**.
 - Ensuring a successful test, click **Next**.
- k. On the Advanced Configuration page, select **Administration Server, Node Manager, Topology**, and **System Components**, and then click **Next**.
- l. On the Administration Server page, provide an updated value for **Listen Address** from the new host on which the admin server will be residing and click **Next**.
- m. On the Node Manager page, confirm user name and passwords and click **Next**.

- n. On the Managed Servers page, provide an updated value for the **Listen Address** and **Listen Port** of each managed server and click **Next**.
- o. On the Clusters page, confirm the clusters and click **Next**.
- p. On the Server Templates page, click **Next**.
- q. On the Dynamic Servers page, click **Next**.
- r. On the Assign Servers to Clusters page, confirm the assignments and then click **Next**.
- s. On the Coherence Clusters page, click **Next**.
- t. On the Machines page, provide an updated value for the **Node Manager Listen Address** and **Listen Port** and then click **Next**.
- u. On the Assign Servers to Machines page, confirm the existing assignments if no machines were reworked for the node manager. Otherwise, map the managed servers and the admin server to the appropriate machines, and then click **Next**.
- v. On the Virtual Targets page, click **Next**.
- w. On the Partitions page, click **Next**.
- x. On the System Components page, confirm the listing of system components and click **Next**.
- y. On the OHS Server page, (do this for all OHS instances by selecting each instance from the System Component drop-down list), confirm the values for **Admin Host**, **Admin Port**, **Listen Port**, **SSL Listen Port**, provide an updated value for **Listen Address**, and then click **Next**.
- z. On the Assign System Components to Machines page, confirm the assignments and then click **Next**.
- aa. On the Configuration Summary page, click **Create**.
- ab. On the Configuration Progress page, click **Next**.
- ac. On the End of Configuration page, click **Finish**.

7.5 Update JPS Configuration with New Database Information

If the database is moving, a couple of configuration files need to be modified using the steps below. However, if the database is not moving, ignore this procedure and continue with the next that describes how to copy the UCM directory to the new host.

1. On the new `apphost1`, in a terminal window, go to the `DOMAINHOME/config/fmwconfig` directory on the new host.
2. In the `jps-config.xml` file, update the `jdbc.url` property with the new JDBC connection string information for the new database location and then save the changes.
3. In the `jps-config-jse.xml` file, make the following changes, and then save your changes:
 - Update the `jdbc.url` property with the new JDBC connection string information for the new database location.
 - Update the `audit.loader.jdbc.string` property with the JDBC connection string information for the new database location.

7.6 Disable Host Name Verification

To disable host name verification:

1. Start the admin server on the target host (in this example, `apphost1`) and wait until the status shows as **RUNNING**.
2. Login to the Admin server console. If running in production mode, click **Lock & Edit** in the Change Center.
3. Go to **Environment > Servers > AdminServer(admin)**.
4. Click the **SSL** tab, then click **Advanced**.
5. Set Hostname Verification to **None** and click **Save**.
6. Go to **Environment > Servers > your WebCenter Content server 1** (In this example, `UCM_server1`).
7. Click the **SSL** tab and then click **Advanced**.
8. Confirm Hostname Verification is set to **None** and click **Save**.
9. Go to **Environment > Servers > your WebCenter Content server 2** (In this example, `UCM_server 2`).
10. Click the **SSL** tab and then click **Advanced**.
11. Confirm Hostname Verification is set to **None** and click **Save**.
12. Go to **Environment > Servers > Oracle Inbound Refinery 1** (in this example, `IBR_server1`).
13. Click the **SSL** tab and then click **Advanced**.
14. Confirm Hostname Verification is set to **None** and click **Save**.
15. Go to **Environment > Servers > Oracle Inbound Refinery 2** (in this example, `IBR_server2`).
16. Click the **SSL** tab and click **Advanced**.
17. Confirm Hostname Verification is set to **None** and click **Save**.
18. Go to **Environment > Servers > WebCenter Content ADF 1** (in this example, `WCCADF_server1`).
19. Click the **SSL** tab and click **Advanced**.
20. Confirm Hostname Verification is set to **None** and click **Save**.
21. Go to **Environment > Servers > WebCenter Content ADF 2** (in this example, `WCCADF_server2`).
22. Click the **SSL** tab and click **Advanced**.
23. Confirm Hostname Verification is set to **None** and click **Save**.
24. If running in production mode, click **Activate Changes** in the Change Center.

7.7 Mount Shared File System and Adjust Configuration Settings for WebCenter Content

If WebCenter Content was migrated, mount the shared file system at this time. Instead, if it was cloned, mount the shared file system from the new location at this time.

To adjust configuration settings of the WebCenter Content node:

1. Open the `DOMAINHOME/ucm/cs/bin/UCM_server1_intradoc.cfg` file on the new host 1 (in this example, `apphost1`) and, if necessary, update the values.

Update the following and then save the changes:

- `IdcHomeDir`
- `FmwDomainConfigDir`
- `AppServerJavaHome`
- `TraceDirectory`
- `EventDirectory`
- `VaultTempDir`
- `IntradocDir`
- `VaultDir`
- `WeblayoutDir`
- `UserProfilesDir`

2. Open the `DOMAINHOME/ucm/cs/bin/intradoc.cfg` file on the new/target host (in this example, `apphost1`) to confirm or, if necessary, update the values.

Update the following and then save the changes:

- `IdcHomeDir`
- `FmwDomainConfigDir`
- `AppServerJavaHome`
- `TraceDirectory`
- `EventDirectory`
- `VaultTempDir`
- `IntradocDir`
- `VaultDir`
- `WeblayoutDir`
- `UserProfilesDir`

3. Edit WebCenter Content's `config.cfg` files to include the updated host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter`.
4. If the load balancer's address is going to change, edit WebCenter Content's `config.cfg` on the shared file system to include the updated host name for `HttpServerAddress`.

5. Edit your load balancer's configuration with the new backend hosts' addresses for WebCenter Content.
6. Open the `DOMAINHOME/nodemanager/nodemanager.properties` file on the new/target host 1 (in this example, `apphost1`).
7. If switching to or from Windows with another operating system that is not Windows, change the value for the `weblogic.StartScriptName` entry and save the change.

7.8 Verify that UCM_server1 Starts on the New Host

1. On the target cluster, start the node manager on `apphost1`.
2. In the **Domain Structure**, go to **Environment > Servers**.
3. On the **Control** tab, select the check box for WebCenter Content 1 (in this example, `UCM_server1`).
4. Click **Start** and then **Yes** to confirm.
5. Above the **Servers** table, click the **refresh** arrow and note that **UCM_server1's** state changes to **RUNNING**.
6. Open a browser and confirm that the `portal.htm` on the new `apphost1` host loads successfully.

7.9 Perform Pack and Unpack Operations to Extend the Domain to the Second Node

1. From the existing Administration Console browser tab, go to **Environment > Servers**.
2. On the **Control** tab, select the check box for WebCenter Content 1 (in this example, `UCM_server1`).
3. Click **Shutdown/Force Shutdown Now** (If Force is not used, running state issues will be experienced.)
4. Click **Yes** to confirm.
5. Above the **Servers** table, click the **refresh** arrow. Note that **UCM_server1's** state changes to **SHUTDOWN**.
6. Stop the admin server from running in its terminal/console window.
7. From the new `apphost1`, open a terminal/console window and go to the shared file system.
8. Run the `pack` command:

```
FMW_HOME/oracle_common/common/bin/pack.sh -managed=true -
domain=/u01/oracle/user_projects/domains/cluster_domain -
template=cluster.jar -template_name="cluster_domain"
```

9. On `apphost2`, open a terminal.

10. Go to the `FMW_HOME/oracle_common/common/bin` directory and run the `unpack` command:

```
./unpack.sh -domain=/u01/oracle/user_projects/domains/cluster_domain -  
template=/<SHAREDFILESYSTEM>/cluster.jar
```

7.10 Copy WebCenter Content Directory to the New Host

Several tools are available to help you copy the WebCenter Content directory to the new host. In this example, we'll use `rsync` to copy from one Linux host to another.

To copy the WebCenter Content directory to the new host:

1. Run `mkdir ucm` on target host (in this example, `apphost2`) in the `DOMAINHOME` directory.
2. Copy the `DOMAINHOME/ucm` directory from the old/source host (in this example, `apphost2`) to the new/target host (in this example, `apphost2`).

```
rsync -avzh ucm/ oracle@targetapphost2.domain.com:DOMAINHOME/ucm  
In this case, target = apphost2
```

7.11 Adjust Configuration Settings for WebCenter Content

To adjust configuration settings of the WebCenter Content node:

1. Open the `DOMAINHOME/ucm/cs/bin/<managedservername>_intradoc.cfg` file on the new host 2 (in this example, `apphost2`) and, if necessary, update the values.

Update the following and then save the changes:

- `IdcHomeDir`
- `FmwDomainConfigDir`
- `AppServerJavaHome`
- `TraceDirectory`
- `EventDirectory`
- `VaultTempDir`
- `IntradocDir`
- `VaultDir`
- `WeblayoutDir`
- `UserProfilesDir`

2. Open the `DOMAINHOME/ucm/cs/bin/intradoc.cfg` file on the new/target host (in this example, `apphost2`) to confirm or, if necessary, update the values.

Update the following and then save the changes:

- `IdcHomeDir`
- `FmwDomainConfigDir`
- `AppServerJavaHome`
- `TraceDirectory`

- EventDirectory
 - VaultTempDir
 - IntradocDir
 - VaultDir
 - WeblayoutDir
 - UserProfilesDir
3. Open the `DOMAINHOME/nodemanager/nodemanager.properties` file on the new `apphost2`.
 4. If switching to or from Windows with another operating system that is not Windows, change the value for the `weblogic.StartScriptName` entry and save the change.

7.12 Verify that UCM_server2 Starts on the New Host

1. On the target cluster, on `apphost2`, start the node manager.
2. On the target cluster, on `apphost1`, start the admin server and proceed to the next step after the admin server's state changes to **RUNNING**.
3. In the Admin Server Console, in the **Domain Structure**, go to **Environment > Servers**.
4. On the **Control** tab, select the check box for **UCM_server2**.
5. Click **Start**, then click **Yes** to confirm.
6. Above the **Servers** table, click the **refresh** arrow. Observe that `UCM_server2`'s state changes to **RUNNING**.
7. Open a browser and confirm that the `portal.htm` on the new `apphost2` host loads successfully.
8. From the existing Administration Console browser tab, go to **Environment > Servers**.
9. On the **Control** tab, select the check box for **UCM_server2**.
10. Click **Shutdown/Force Shutdown** (If Force is not used, running state issues will be experienced.)
11. Click **Yes** to confirm.
12. Above the **Servers** table, click the **refresh** arrow. Observe that `UCM_server2`'s state changes to **SHUTDOWN**.

7.13 Adjust Configuration Settings for Inbound Refineries

1. Open the `DOMAINHOME/ucm/ibr/config/config.cfg` file on the new host 1 (in this example, `apphost1`).
2. Provide the updated host name and port as the value for `HttpServerAddress`.
3. Provide host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter` and save the changes.

4. Open the `DOMAINHOME/ucm/ibr/bin/MANAGEDSERVERNAME_intradoc.cfg` file on the new host 1 (in this example, `apphost1`) and update the following and then save the changes.
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`
5. Open the `DOMAINHOME/ucm/ibr/bin/intradoc.cfg` file on the new `apphost1` host and update the following and then save the changes.
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`
6. Open the `DOMAINHOME/ucm/ibr/config/config.cfg` file on the new host 2 (in this example, `apphost2`).
7. Provide the updated host name and port as the value for `HttpServerAddress`.
8. Provide host name for `SocketHostNameSecurityFilter` or IP address for `SocketHostAddressSecurityFilter` and save the changes.
9. Open the `DOMAINHOME/ucm/ibr/bin/MANAGEDSERVERNAME_intradoc.cfg` file on the new host 2 (in this example, `apphost2`) and update the following and then save the changes.
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`
 - `IntradocDir`
 - `VaultDir`
 - `WeblayoutDir`
 - `UserProfilesDir`
10. Open the `DOMAINHOME/ucm/ibr/bin/intradoc.cfg` file on the new `apphost2` host and update the following and then save the changes.
 - `IdcHomeDir`
 - `FmwDomainConfigDir`
 - `AppServerJavaHome`

- IntradocDir
- VaultDir
- WeblayoutDir
- UserProfilesDir

7.14 Verify that Inbound Refineries Start Successfully on New Hosts

1. In the Admin Server Console, in the **Domain Structure**, go to **Environment > Servers**.
2. On the **Control** tab, select the check box for **IBR_server1** and **IBR_server2**.
3. Click **Start**, then click **Yes** to confirm.
4. Above the **Servers** table, click the **refresh** arrows for both servers. Observe that **IBR_server1**'s and **IBR_server2**'s states change to **RUNNING**.
5. Verify that you are able to log into both refineries.

7.15 Swap Out Executables

If the operating system has changed or directory paths have changed, you will need to replace the executables or redo the symbolic links with the proper ones. Here are a few possible scenarios.

Windows to Linux

1. Delete **.exe** files in the `DOMAINHOME/ucm/cs/bin` directory on the new Linux host.
2. In the `DOMAINHOME/ucm/cs/bin` directory, create a symbolic link to `FMWHOME/wccontent/ucm/idc/native/Launcher.sh`:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

3. In the `DOMAINHOME/ucm/cs/bin` directory, create symbolic links to `DOMAINHOME/ucm/cs/bin/Launcher.sh` called:

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer

- IntradocApp
- RepositoryManager
- SystemProperties
- UnixProcCtrl
- UserAdmin
- WebLayoutEditor
- WorkflowAdmin

Example:

```
ln -s Launcher.sh Archiver
```

4. Go to the `DOMAINHOME/ucm/cs/admin/bin` directory and delete the following items:

- IdcAdmin.exe
- IdcAdminNT.exe
- NTProcCtrl.exe

5. Create the symbolic link for the `Launcher.sh` using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

6. Create the symbolic links for `IdcAdmin` and `UnixProcCtrl` to point to the `DOMAINHOME/ucm/cs/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

7. Repeat steps 1 through 4 for other content server cluster nodes in the domain.
8. If a refinery was moved, delete the `.exe` files in the `DOMAINHOME/ucm/ibr/bin` directory.
9. In the `DOMAINHOME/ucm/ibr/bin` directory, create a symbolic link to the `FMWHOME/wccontent/ucm/idc/native/Launcher.sh`.

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

10. In the `DOMAINHOME/ucm/ibr/bin` directory, create symbolic links to `DOMAINHOME/ucm/ibr/bin/Launcher.sh` called:

- ComponentWizard
- IdcCommand
- IdcRefinery
- Installer
- SystemProperties
- UnixProcCtrl

Example:

```
ln -s Launcher.sh ComponentWizard
```

- 11. Go to the** `DOMAINHOME/ucm/ibr/admin/bin` **directory and delete the following items:**

- `IdcAdmin.exe`
- `IdcAdminNT.exe`
- `NtProcCtrl.exe`

- 12. Create the symbolic link for the** `Launcher.sh` **using the new location:**

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

- 13. Create the symbolic links for** `IdcAdmin` **and** `UnixProcCtrl` **to point to the** `DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin  
ln -s Launcher.sh UnixProcCtrl
```

- 14. Repeat steps 8 through 13 for other refineries in the domain.**

Linux to Linux

- 1. Go to the** `DOMAINHOME/ucm/cs/bin` **directory and delete the** `Launcher.sh` **symbolic link.**
- 2. Create the symbolic link for the** `Launcher.sh` **using the new location:**

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

- 3. Delete the items below:**

- `Archiver`
- `BatchLoader`
- `ComponentTool`
- `ComponentWizard`
- `ConfigurationManager`
- `IdcAnalyze`
- `IdcCommand`
- `IdcServer`
- `IdcShell`
- `Installer`
- `IntradocApp`
- `RepositoryManager`
- `SystemProperties`

- UnixProcCtrl
- UserAdmin
- WeblayoutEditor
- WorkflowAdmin

4. Create the various symbolic links to point to the Launcher.sh:

```
ln -s Launcher.sh Archiver
ln -s Launcher.sh BatchLoader
ln -s Launcher.sh ComponentTool
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh ConfigurationManager
ln -s Launcher.sh IdcAnalyze
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcServer
ln -s Launcher.sh IdcShell
ln -s Launcher.sh Installer
ln -s Launcher.sh IntradocApp
ln -s Launcher.sh RepositoryManager
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
ln -s Launcher.sh UserAdmin
ln -s Launcher.sh WeblayoutEditor
ln -s Launcher.sh WorkflowAdmin
```

5. Go to the DOMAINHOME/ucm/cs/admin/bin directory and delete the following items:

- IdcAdmin
- Launcher.sh
- UnixProcCtrl

6. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh
```

7. Create the symbolic links for IdcAdmin and UnixProcCtrl to point to the DOMAINHOME/ucm/cs/admin/bin/Launcher.sh.

8. Repeat steps 1 through 4 for other WebCenter Content cluster nodes in the domain.

9. Go to the DOMAINHOME/ucm/ibr/bin directory and delete the Launcher.sh.

10. Create the symbolic link for the Launcher.sh using the new location:

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

11. Delete the items below:

- ComponentWizard
- IdcCommand
- IdcRefinery
- Installer
- SystemProperties

- UnixProcCtrl

12. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/bin/Launcher.sh`:

```
ln -s Launcher.sh ComponentWizard
ln -s Launcher.sh IdcCommand
ln -s Launcher.sh IdcRefinery
ln -s Launcher.sh Installer
ln -s Launcher.sh SystemProperties
ln -s Launcher.sh UnixProcCtrl
```

13. Go to the `DOMAINHOME/ucm/ibr/admin/bin` **directory and delete the following items:**

- IdcAdmin
- Launcher.sh
- UnixProcCtrl

14. Create the symbolic link for the `Launcher.sh` **using the new location:**

```
ln -s FMWHOME/wccontent/ucm/idc/native/Launcher.sh Launcher.sh
```

15. Create the symbolic links to point to the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.sh`:

```
ln -s Launcher.sh IdcAdmin
ln -s Launcher.sh UnixProcCtrl
```

16. Repeat steps 9 through 15 for other refineries in the domain.

Linux to Windows

1. Go to the `DOMAINHOME/ucm/cs/bin` **directory and delete these items:**

- Archiver
- BatchLoader
- ComponentTool
- ComponentWizard
- ConfigurationManager
- IdcAnalyze
- IdcCommand
- IdcServer
- IdcShell
- Installer
- IntradocApp
- RepositoryManager
- SystemProperties

- UnixProcCtrl
 - UserAdmin
 - WebLayoutEditor
 - WorkflowAdmin
2. **Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/bin` directory**
 3. **Copy the `DOMAINHOME/ucm/cs/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/bin` directory with the following names:**
 - Archiver.exe
 - BatchLoader.exe
 - ComponentTool.exe
 - ComponentWizard.exe
 - ConfigurationManager.exe
 - IdcAnalyze.exe
 - IdcCommand.exe
 - IdcServer.exe
 - IdcShell.exe
 - Installer.exe
 - IntradocApp.exe
 - RepositoryManager.exe
 - SystemProperties.exe
 - UserAdmin.exe
 - WebLayoutEditor.exe
 - WorkflowAdmin.exe
 4. **Delete the `DOMAINHOME/ucm/cs/bin/Launcher.exe` file.**
 5. **Go to the `DOMAINHOME/ucm/cs/admin/bin` directory and delete these items:**
 - IdcAdmin
 - Launcher.sh
 - UnixProcCtrl
 6. **Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/cs/admin/bin` directory**
 7. **Copy the `DOMAINHOME/ucm/cs/admin/bin/Launcher.exe` to the `DOMAINHOME/ucm/cs/admin/bin` directory with the following names:**
 - IdcAdmin.exe
 - IdcAdminNT.exe
 8. **Delete the `DOMAINHOME/ucm/cs/admin/bin/Launcher.exe` file.**

9. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/cs/admin/bin` directory.
10. Repeat steps 1 through 4 for other WebCenter Content cluster nodes in the domain.
11. Go to the `DOMAINHOME/ucm/ibr/bin` directory and delete these items:
 - `ComponentWizard`
 - `IdcCommand`
 - `IdcRefineryInstaller`
 - `Launcher.sh`
 - `SystemProperties`
 - `UnixProcCtrl`
12. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/ibr/bin` directory.
13. Copy the `DOMAINHOME/ucm/ibr/bin/Launcher.exe` to the `DOMAINHOME/ucm/ibr/bin` directory with the following names:
 - `ComponentWizard.exe`
 - `IdcRefinery.exe`
 - `IdcRefineryNT.exe`
 - `Installer.exe`
 - `SystemProperties.exe`
14. Delete the `DOMAINHOME/ucm/ibr/bin/Launcher.exe` file.
15. Go to the `DOMAINHOME/ucm/ibr/admin/bin` directory and delete these items:
 - `IdcAdmin`
 - `Launcher.sh`
 - `UnixProcCtrl`
16. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/Launcher.exe` file to the `DOMAINHOME/ucm/ibr/admin/bin` directory.
17. Copy the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe` to the `DOMAINHOME/ucm/ibr/admin/bin` directory with the following names:
 - `IdcAdmin.exe`
 - `IdcAdminNT.exe`
18. Delete the `DOMAINHOME/ucm/ibr/admin/bin/Launcher.exe` file
19. Copy the `FMWHOME/wccontent/ucm/idc/native/windows-amd64/bin/NtProcCtrl.exe` file to the `DOMAINHOME/ucm/ibr/admin/bin` directory.
20. Repeat steps 11 through 19 for other refineries in the domain.

7.16 Adjust Outgoing Provider Settings for Inbound Refineries

1. In the **Domain Structure**, go to **Environment > Servers**.
2. On the **Control** tab, select the check boxes for **UCM_server1** and **UCM_server2**.
3. Click **Start** and then **Yes** to confirm.
4. Above the **Servers** table, click the **refresh** arrows. Observe that the state of **UCM_server1** and **UCM_server2** changes to **RUNNING**.
5. Log in to the WebCenter Content instance.
6. On the Administration > Providers page, for the outgoing provider connecting to the refinery on **apphost1**, click **Info**.
7. Click **Edit** and provide the new values for **Server Host Name** and **HTTP Server Address**.
8. Click **Update** and for the outgoing provider connecting to the refinery on **apphost2**, click **Info**.
9. Click **Edit** and provide the new values for **Server Host Name** and **HTTP Server Address**.
10. Click **Update**.
11. Restart the **UCM_server1** and **UCM_server2** managed servers.

7.17 Adjust Configuration Settings for WebCenter Content User Interface

To reconfigure WebCenter Content user interface:

1. In the **Domain Structure**, go to **Environment > Servers**.
2. On the **Control** tab, select the check boxes for **WCCADF_server1** and **WCCADF_server2**.
3. Click **Start** and then **Yes** to confirm.
4. Above the **Servers** table, click the **refresh** arrows. Observe that the state of **WCCADF_server1** and **WCCADF_server2** changes to **RUNNING**.
5. If your load balancer has changed, log into the Fusion Middleware Control and edit the `PropConnectionUrl` mBean value used for establishing the connection from the WebCenter Content user interface to the WebCenter Content so that this value uses the new address for your load balancer.
 - a. From the target navigation in the upper left corner of the page, go to **WebLogic Domain > <DOMAINNAME> - UI_cluster - WCCADF_server1** and then select the **WCCADF_server1** managed server.
 - b. From the **WebLogic Server** drop-down list, select **WebLogic Server - System MBean Browser**.
 - c. Navigate to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections > ADFConnections > WccConnection > WccAdfServerConnection**.

- d. Update the value for **PropConnectionUrl** to contain the new load balancer listening on the socket port and click **Apply**.
- e. Go to **Application Defined MBeans > oracle.adf.share.connections > Server: WCCADF_server1 > Application: Oracle WebCenter Content - Web UI > ADFConnections**
- On the **Operations** tab, click **Save** and then click **Invoke** to display **Operation executed successfully** message.

7.18 Configure Oracle HTTP Server

1. On the new `apphost1`, open a terminal.
2. Go to the `DOMAINHOME/config/fmwconfig/components/OHS/instances/ohs_1` directory.
3. Open the `mod_wl_ohs.conf` file in a text editor.
4. Replace existing values for `apphost1` and `apphost2` with the new values.
5. Save the file and exit the text editor.
6. Go to the `DOMAINHOME/config/fmwconfig/components/OHS/ohs_1` directory.
7. Open the `mod_wl_ohs.conf` file in a text editor.
8. Replace existing values for `apphost1` and `apphost2` with the new values.
9. Save the file and exit the text editor.
10. Copy the `DOMAINHOME/config/fmwconfig/components/OHS/instances/ohs_1/mod_wl_ohs.conf` on the new `apphost1` to the `DOMAINHOME/config/fmwconfig/components/OHS/instances/ohs_2` on the new `apphost2`.
11. Log in to Fusion Middleware Control.
12. To display the **Target Navigation** menu, click the **Target Navigation** icon in the upper left corner.
13. Expand the **HTTP Server** section and select `ohs_1`.
14. Click **Start Up** and proceed to the next step after the **Confirmation** message appears.
15. In the upper left corner, click the **Target Navigation** icon and in the **Target Navigation** menu, select `ohs_2`.
16. Click **Start Up** and close the **Confirmation** message when it is displayed.

7.19 Configure Security Providers

Manually port the security provider data to the domain's new location. This is required because the Domain Template Builder is an offline utility, and therefore, does not export security provider data such as embedded LDAP data, into domain templates.

Related Topics

- [Porting Security Provider Data to a New Domain](#)

7.20 Update Database Information for Standalone Java Applications

If the database location has changed:

1. From the `DOMAINHOME/ucm/cs/bin` directory of one of the cluster nodes, run the `SystemProperties` application.
2. From within the `SystemProperties` application, update the database information on the **Database** tab so that the standalone Java applications in WebCenter Content's `bin` directory can be launched successfully.

7.21 Verify That Everything Works

If you have never run any of the standalone java applications before, you need to reset the local `sysadmin` user's password using the `UserAdmin` applet and also configure the `jdbc` connection using `SystemProperties` so the standalone java applications can interact with the database and function.

To check that migration has been successful:

1. Run `IdcAnalyze` to confirm there are no errors. On the **Configuration** tab, ensure the following:
 - **Database** is selected
 - **Database** → **RevClassIDs** is selected
 - **Database** → **Clean Database** is deselected
 - **Search index** is selected
 - **Search index** → **Clean Search Index** is deselected
 - **file system** is selected
 - **Generate Report** is selected

For information, see *Using the Content Server Analyzer* in *Administering Oracle WebCenter Content*.

If errors are reported, fix them as necessary.

2. Update other applications' configuration settings with the new host name for WebCenter Content.

8

Migrate On-Premise Non-Clustered WebCenter Content 11g and 12c to Oracle Cloud Infrastructure

You can easily and speedily migrate on-premise non-clustered WebCenter Content instances to Oracle Cloud Infrastructure using the WebLogic Template Builder functionality. The migration process is the same whether you move an on-premise WebCenter Content to another on-premise infrastructure or to an Oracle Cloud Infrastructure.

Topics

- [About Migrating WebCenter Content Release 11g and 12c to Oracle Cloud Infrastructure](#)
- [Migrate Non-Clustered WebCenter Content Release 11g to a New Host on an Identical or Dissimilar Infrastructure](#)
- [Migrate Non-Clustered WebCenter Content 12c to a Dissimilar Infrastructure](#)

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Migrate On-Premise Clustered WebCenter Content 11g and 12c to Oracle Cloud Infrastructure

You can easily and speedily migrate on-premise clustered WebCenter Content instances to Oracle Cloud Infrastructure using the WebLogic Template Builder functionality. The migration process is the same whether you move an on-premise WebCenter Content to another on-premise infrastructure or to an Oracle Cloud Infrastructure.

Topics

- [About Migrating WebCenter Content Release 11g and 12c to Oracle Cloud Infrastructure](#)
- [Migrate Clustered WebCenter Content 11g to New Hosts on an Identical or Dissimilar Infrastructure](#)
- [Migrate Clustered WebCenter Content 12c to New Hosts on a Dissimilar Infrastructure](#)