Oracle® Fusion Middleware

Oracle Access Management Bundle Patch Readme

OAM Bundle Patch 14.1.2.1.250318 Generic for all Server Platforms

G30318-01

April 2025

Oracle Access Management Bundle Patch Readme

This document describes OAM Bundle Patch 14.1.2.1.250318.

This document requires a base installation of Oracle Access Management 14c (14.1.2.1.0) and contains the following sections:

- Understanding Bundle Patches
- Recommendations
- Bundle Patch Requirements
- Applying the Bundle Patch
- Removing the Bundle Patch
- Resolved Issues
- Related Documents

Understanding Bundle Patches

Describes Bundle Patches and explains the differences between Stack Patch Bundles, Bundle Patches, interim patches and Patch Sets.

- Stack Patch Bundle
- Bundle Patch
- Interim Patch
- Patch Set

Stack Patch Bundle

Stack Patch Bundle deploys the IDM product and dependent FMW patches using a tool. For more information about these patches, see `Quarterly Stack Patch Bundles (Doc ID 2657920.2)` at https://support.oracle.com.

Bundle Patch

A Bundle Patch is an official Oracle patch for Oracle Fusion Middleware components on baseline platforms. In a Bundle Patch release string, the fifth digit indicated the bundle patch number. Effective November 2015, the version numbering format has changed. The new format replaces the numeric fifth digit of the bundle version with a release date in the "YYMMDD" format where:

- YY is the last 2 digits of the year
- MM is the numeric month (2 digits)
- DD is the numeric day of the month (2 digits)

Each Bundle Patch includes the libraries and files that have been rebuilt to implement one or more fixes. All fixes in the Bundle Patch have been tested and are certified to work with one another.

Each Bundle Patch is cumulative: the latest Bundle Patch includes all fixes in earlier Bundle Patches for the same release and platform. Fixes delivered in Bundle Patches are rolled into the next release.

Interim Patch

In contrast to a Bundle Patch, an interim patch addresses only one issue for a single component. Although each interim patch is an official Oracle patch, it is not a complete product distribution and does not include packages for every component. An interim patch includes only the libraries and files that have been rebuilt to implement a specific fix for a specific component.

You may also know an interim patch as: security one-off, exception release, x-fix, PSE, MLR, or hotfix.

Patch Set

A Patch Set is a mechanism for delivering fully tested and integrated product fixes that can be applied to installed components of the same release. Patch Sets include all fixes available in previous Bundle Patches for the release. A Patch Set can also include new functionality.

Each Patch Set includes the libraries and files that have been rebuilt to implement bug fixes (and new functions, if any). However, a patch set might not be a complete software distribution and might not include packages for every component on every platform.

All fixes in the Patch Set have been tested and are certified to work with one another on the specified platforms.

Recommendations

Oracle has certified the dependent Middleware component patches for Identity Management products and recommends that Customers apply these certified patches.

For more information on these patches, see the note `Stack Patch Bundle for Oracle Identity Management Products (Doc ID 2657920.2)` at https://support.oracle.com.

Bundle Patch Requirements

To remain in an Oracle-supported state, apply the Bundle Patch to all installed components for which packages are provided. Oracle recommends that you:

1. Apply the latest Bundle Patch to all installed components in the bundle.
2. Keep OAM Server components at the same (or higher) Bundle Patch level as installed WebGates of the same release.

Applying the Bundle Patch

The following topics help you, as you prepare and install the Bundle Patch files (or as you remove a Bundle Patch should you need to revert to your original installation):

- Using the Oracle Patch Mechanism (OPatch)
- Applying the OAM Bundle Patch
- Recovering From a Failed Bundle Patch Application

Using the Oracle Patch Mechanism (OPatch)

The Oracle patch mechanism (OPatch) is a Java-based utility that runs on all supported operating systems. OPatch requires installation of the Oracle Universal Installer.

> **✏ Note:**
>
> Oracle recommends that you have the latest version of OPatch from My Oracle Support. OPatch requires access to a valid Oracle Universal Installer (OUI) Inventory to apply patches.

Patching process uses both unzip and OPatch executables. After sourcing the `ORACLE_HOME` environment variable, Oracle recommends that you confirm that both of these exist before patching. OPatch is accessible at: `$ORACLE_HOME/OPatch/opatch`

When OPatch starts, it validates the patch to ensure there are no conflicts with the software already installed in your `$ORACLE_HOME`:

- If you find conflicts with a patch already applied to the `$ORACLE_HOME`, stop the patch installation and contact Oracle Support Services.

- If you find conflicts with a subset patch already applied to the $ORACLE_HOME, continue the Bundle Patch application. The subset patch is automatically rolled back before the installation of the new patch begins. The latest Bundle Patch contains all fixes from the previous Bundle Patch in $ORACLE_HOME.

This Bundle Patch is not -auto flag enabled. Without the -auto flag, no servers need to be running. The Machine Name & Listen Address can be blank on a default install.

> ✏ **See Also:**
>
> Oracle Universal Installer and Opatch User's Guide

Perform the steps in the following procedure to prepare your environment and download OPatch:

- Log in to My Oracle Support: https://support.oracle.com/

- Download the required OPatch version.

- Use `opatch version` to check if your OPatch version is the latest. If it is an earlier version of OPatch, download the latest version.

- Confirm if the required executables opatch and unzip are available in your system by running the following commands:

  Run *which opatch* - to get the path of OPatch

  Run *which unzip* - to get the path of unzip

  Check if the path of the executables is in the environment variable "PATH", if not add the paths to the system PATH.

- Verify the OUI Inventory using the following command:

  `opatch lsinventory`

  Windows 64-bit: `opatch lsinventory -jdk c:\jdk21`

  If an error occurs, contact Oracle Support to validate and verify the inventory setup before proceeding. If the ORACLE_HOME does not appear, it might be missing from the Central Inventory or the Central Inventory itself could be missing or corrupted.

- Review information in the next topic Applying the OAM Bundle Patch

Applying the OAM Bundle Patch

Use the information and steps found here to apply the Bundle Patch from any platform using Oracle patch (OPatch). While individual command syntax might differ depending on your platform, the overall procedure is platform agnostic.

The files in each Bundle Patch are installed into the destination $ORACLE_HOME. This enables you to remove (roll back) the Bundle Patch even if you deleted the original Bundle Patch files from the temporary directory you created.

> **✎ Note:**
>
> Oracle recommends that you back up the `$ORACLE_HOME` using your preferred method before any patch operation. You can use any method (zip, cp -r, tar and cpio) to compress the `$ORACLE_HOME`.

Formatting constraints in this document might force some sample text lines to wrap around. These line wraps should be ignored.

To apply the OAM Bundle Patch

OPatch is accessible at `$ORACLE_HOME/OPatch/opatch`. Before beginning the procedure to apply the Bundle Patch be sure to:

- Set `ORACLE_HOME`

  For example:

  ```
  export ORACLE_HOME=/opt/oracle/mwhome
  ```

- Run `export PATH=<<Path of OPatch directory>>:$PATH` to ensure that the OPatch executables appear in the system PATH. For example:

  ```
  export PATH=$ORACLE_HOME/OPatch:$PATH
  ```

1. Download the OAM patch p37719694_141210_Generic.zip

2. Unzip the patch zip file into the `PATCH_TOP`.

   ```
   $ unzip -d PATCH_TOP p37719694_141210_Generic.zip
   ```

   > **✎ Note:**
   >
   > On Windows, the unzip command has a limitation of 256 characters in the path name. If you encounter this, use an alternate ZIP utility such as 7-Zip to unzip the patch.

   For example: To unzip using 7-Zip, run the following command.

   ```
   "c:\Program Files\7-Zip\7z.exe" x p37719694_141210_Generic.zip
   ```

3. Set your current directory to the directory where the patch is located.

   ```
   $ cd PATCH_TOP/37719694
   ```

4. Log in as the same user who installed the base product and:

   - Stop the AdminServer and all OAM Servers to which you will apply this Bundle Patch.

     Any application that uses this OAM Server and any OAM-protected servers will not be accessible during this period.

- Back up your $ORACLE_HOME.

- Move the backup directory to another location and record this so you can locate it later, if needed.

5. Run the appropriate OPatch command as an administrator to ensure the required permissions are granted to update the central inventory and apply the patch to your $ORACLE_HOME. For example:

```
opatch apply
Windows 64-bit: opatch apply -jdk c:\path\to\jdk21
```

> **✎ Note:**
>
> OPatch operates on one instance at a time. If you have multiple instances, you must repeat these steps for each instance.

6. Start all Servers (AdminServer and all OAM Servers).

Applying the OAM Bundle Patch in Multi Data Center (MDC)

Use the information and steps described here to apply the Bundle Patch in an MDC setup.

It is recommended that you upgrade or patch the Master data center followed by each of the Clone data centers.

Perform the following steps to apply the patch in an MDC setup.

1. Upgrade or apply the patch on the Master data center. For more information, see Applying the OAM Bundle Patch.

2. Disable Automated Policy Synchronization (APS) between Master and the Clone data center that needs to be patched. For details, see Disabling Automated Policy Synchronization in *Administering Oracle Access Management*.

3. Ensure that WriteEnabledFlag is true in oam-config.xml. If it is not enabled, set the WriteEnabledFlag to true in Clone data center using the following WLST commands.

```
connect('weblogic','XXXX','t3<a target="_blank" href="://
localhost:7001'">://localhost:7001'</a>)
domainRuntime()
setMultiDataCenterWrite(WriteEnabledFlag="true")
```

4. Upgrade or apply the patch on the Clone data center.

5. Change the WriteEnabledFlag to false in the Clone data center using the following WLST commands:

```
connect('weblogic','XXXX','t3<a target="_blank" href="://
localhost:7001'">://localhost:7001'</a>)
```

```
domainRuntime()
setMultiDataCenterWrite(WriteEnabledFlag="false")
```

> **Note:**
>
> The Clone data center must be made write-protected before enabling APS to ensure that there are no inconsistencies between the data centers.

6. Re-enable APS between Master and the upgraded Clone data center. For details, see Enabling Automated Policy Synchronization in *Administering Oracle Access Management*.

Recovering From a Failed Bundle Patch Application

If the AdminServer does not start successfully, the Bundle Patch application has failed.

To recover from a failed Bundle Patch application:

1. Confirm that there are no configuration issues with your patch application.

2. Confirm that you can start the AdminServer successfully.

3. Shut down the AdminServer and rollback the patch as described in Removing the Bundle Patch then apply the Bundle Patch again.

Removing the Bundle Patch

If you want to rollback a Bundle Patch after it has been applied, perform the following steps. While individual command syntax might differ depending on your platform, the

overall procedure is the same. After the Bundle Patch is removed, the system is restored to the state it was in immediately before patching.

> **✏ Note:**
>
> - Removing a Bundle Patch overrides any manual configuration changes that were made after applying the Bundle Patch. These changes must be re-applied manually after removing the patch.
>
> - Use the latest version of OPatch for rollback. If older versions of the OPatch is used for rollback, the following fail message is displayed:
>
>   ```
>   C:\Users\<username>\Downloads\p37719694_141210_Generic\37719
>   694
>   >c:\Oracle\oam12214\OPatch\opatch rollback -id 37719694
>   Oracle Interim Patch Installer version 13.9.2.0.0
>   Copyright (c) 2020, Oracle Corporation. All rights reserved.
>   ......
>   The following actions have failed:
>   Malformed \uxxxx encoding.
>   Malformed \uxxxx encoding.
>   ```

Follow these instructions to remove the Bundle Patch on any system.

To remove a Bundle Patch on any system:

1. Perform the steps in Applying the OAM Bundle Patch to set the environment variables, verify the inventory and shut down any services running from the `ORACLE_HOME` or host machine.

2. Change to the directory where the patch was unzipped. For example: `cd PATCH_TOP/37719694`

3. Back up the `ORACLE_HOME` directory that includes the Bundle Patch and move the backup to another location so you can locate it later.

4. Run OPatch to rollback the patch. For example:

   ```
   opatch rollback -id 37719694
   ```

5. Start the servers (AdminServer and all OAM Servers) based on the mode you are using.

6. Re-apply the Bundle Patch, if needed, as described in Applying the Bundle Patch.

Resolved Issues

This Bundle Patch provides the fixes described in the below section:

- Resolved Issues in OAM Bundle Patch 14.1.2.1.250318

Resolved Issues in OAM Bundle Patch 14.1.2.1.250318

Applying this Bundle Patch resolves the issues listed in the following table:

Table 1-1   Resolved Issues in OAM Bundle Patch 14.1.2.1.250318

Base Bug Number	Description of the Problem
37594407	FMW 141210: OAM STOP MANAGED SERVER THROWS EXCEPTION

Related Documents

For more information, see the following resources:

- Administering Oracle Access Management

    This guide provides information on administration and configuration tasks using Oracle Access Management.

- Developing Applications with Oracle Access Management for All Platforms

    This guide explains how to write custom applications and plug-ins to programmatically extend access management functionality using the SDKs and APIs provided with Oracle Access Management.