Oracle® Fusion Middleware

Upgrading a Standalone Oracle HTTP Server

12c (12.1.2)

E41173-01

July 2013

ORACLE®

Oracle Fusion Middleware Upgrading a Standalone Oracle HTTP Server 12c (12.1.2)

E41173-01

Contents

Preface

This preface contains the following sections:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This manual is intended for Oracle Fusion Middleware system administrators who are responsible for upgrading Oracle Fusion Middleware. It is assumed that the readers of this manual have knowledge of the following:

- Oracle Fusion Middleware 11*g* system administration and configuration information for the existing deployment
- The configuration and expected behavior of the system or systems being upgraded

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

Oracle customers have access to electronic support through My Oracle Support. For information, visit
http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit
http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

For more information, see the following related documentation available in the Oracle Fusion Middleware 12c (12.1.2) documentation library:

- *Planning an Upgrade of Oracle Fusion Middleware*
- *Installing and Configuring Oracle HTTP Server*
- *Administering Oracle HTTP Server*

- *Administering Oracle Fusion Middleware*
- *Understanding Oracle Fusion Middleware*
- *Upgrading to the Oracle Fusion Middleware Infrastructure*

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.
italic	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 screen, or text that you enter.

What's New in This Guide

The following topics introduce the new and changed features of the standalone Oracle HTTP Server and provides pointers to additional information.

New and Changed Features for 12c (12.1.2)

Before you begin the upgrade process, review the following list of changes for standalone Oracle HTTP Servers in 12.1.2:

- The installer will no longer create a separate instance directory for Oracle HTTP Server. Instance information for the standalone OHS will be stored in a new **standalone domain** home. For more information, see Section 1.1, "Understanding the Standalone OHS Topology".

- OPMN agent and `opmnctl` command line utility are no longer used in Oracle Fusion Middleware. Instead, system components are managed by NodeManager and WLST commands. For more information, see Chapter 2, "Upgrading a Standalone Oracle HTTP Server".

Other Significant Changes in this Document for 12c (12.1.2)

This guide is new to the Fusion Middleware library in 12c (12.1.2).

1

Introduction to the Standalone HTTP Server Upgrade

This chapter provides a general introduction to the Oracle Fusion Middleware Standalone Oracle HTTP Server and an overview of the steps you must perform to upgrade from an Oracle Fusion Middleware 11*g* Oracle HTTP Server instance installation.

This chapter includes the following sections:

- Section 1.1, "Understanding the Standalone OHS Topology"
- Section 1.2, "Overview of the Standalone OHS Upgrade Process"

1.1 Understanding the Standalone OHS Topology

In 12c (12.1.2), a **standalone Oracle HTTP Server (OHS)** is not managed by or registered to an Oracle WebLogic Server domain. A standalone Oracle HTTP Server 12.1.2 topology can be installed and configured without the Oracle Fusion Middleware Infrastructure. A **managed Oracle HTTP Server (OHS)**, however, is associated with an existing Oracle WebLogic Server domain. For the standalone scenario, you install the Oracle HTTP Server software in its own Oracle home, and you configure the Oracle HTTP Server instance in its own **standalone domain**.

See Also:

- For more information on installing and configuring a standalone Oracle HTTP Server, see *Installing and Configuring Oracle HTTP Server*
- For more information on the new 12c standalone domain, see "What Is a Standalone Domain?" in *Understanding Oracle Fusion Middleware*
- For more information on the administration scenarios and key features of the OHS, see "Introduction to Oracle HTTP Server" *Administering Oracle HTTP Server*.
- For more information on upgrading a managed OHS, see "Performing the Infrastructure Upgrade" in *Upgrading to the Oracle Fusion Middleware Infrastructure*"

Figure 1–1 shows a standalone OHS topology.

Figure 1–1   Standalone OHS Upgrade Topology
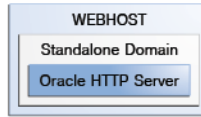
This illustration shows the Oracle HTTP Server standalone topology that will be achieved by the end of this installation. It is described in the surrounding text.

****

Table 1–1 describe the elements of this topology

Table 1–1   Description of the Elements in the Oracle Fusion Middleware Standalone OHS Upgrade Topology

Element	Description and Links to Additional Documentation
WEBHOST	Standard term used in Oracle documentation referring to the machine that is hosting the Web tier.
Standalone Domain	When you upgrade your standalone Oracle HTTP Server to 12c (12.1.2), a new standalone domain is created to provide management tools for your system components.
	This standalone domain has a directory structure similar to an Oracle WebLogic domain, but it does not contain an Administration Server or Managed Servers. The Oracle WebLogic Server Node Manager and other tools allow you to manage the standalone Oracle HTTP Server instance.
	For more information on standalone domains, see "What Is a Standalone Domain?" in *Understanding Oracle Fusion Middleware*.

1.2 Overview of the Standalone OHS Upgrade Process

The following sections provide a high level overview of the procedures you will perform to upgrade your standalone OHS:

- Flow Chart of the Standalone OHS Upgrade Process
- Roadmap for Upgrading a Standalone OHS

1.2.1 Flow Chart of the Standalone OHS Upgrade Process

Figure 1–2 shows the high-level procedures associated with a standalone OHS upgrade. The tools used for each step are also listed.

Detailed instructions for upgrading your standalone OHS are described in Chapter 2, "Upgrading a Standalone Oracle HTTP Server".

Figure 1–2   Standalone Oracle HTTP Server Upgrade
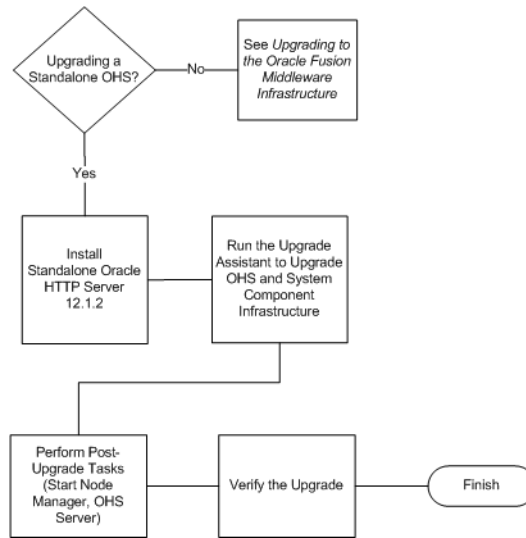
Upgrade procedures described in table below.

****

1.2.2 Roadmap for Upgrading a Standalone OHS

Table 1–2 describes the tasks that must be completed to upgrade a standalone OHS.

Table 1–2   Overview of the Standalone OHS Upgrade Process

Task	Description	Documentation
Verify that you are upgrading a standalone OHS.	The steps in this document describe the process for upgrading a standalone Oracle HTTP Server. If you are upgrading an OHS that is managed by a WebLogic server domain, the upgrade steps will be different.	For information on upgrading a managed Oracle HTTP Server, see "Performing the Infrastructure Upgrade" in *Upgrading to the Oracle Fusion Middleware Infrastructure*"
Verify your system environment	Before beginning the upgrade, verify that the minimum system and network requirements are met.	See "Verifying Certification and System Requirements" in *Planning an Installation of Oracle Fusion Middleware.*
Obtain the Oracle HTTP Server distribution.	To create the topology described in this guide, obtain the Oracle Fusion Middleware Oracle HTTP Server distribution.	See "Understanding and Obtaining Product Distributions" in *Planning an Installation of Oracle Fusion Middleware*
Install the software	Run the installation program to install the software. This transfers the software to your system and creates a new Oracle home directory.	See "Installing the Standalone OHS"
Run the Upgrade Assistant.	After the installation, you will use the Upgrade Assistant to upgrade the OHS and system component infrastructure.	See "Starting the Upgrade Assistant"

Table 1–2   (Cont.) Overview of the Standalone OHS Upgrade Process

Task	Description	Documentation
Perform any required post-upgrade steps.	You may be required to perform additional steps after the upgrade.	See Performing Post-Upgrade Tasks
Verify the upgrade was successful.	Your OHS should continue to function as expected. If you have post-upgrade issues, you will need to troubleshoot the installation and retry the upgrade.	"Troubleshooting Oracle HTTP Server" in *Administering Oracle HTTP Server*
Start Node Manager and OHS.	After the upgrade, start the Node Manager and OHS.	See "Starting the Node Manager" and "Starting the Standalone OHS Server".

2

Upgrading a Standalone Oracle HTTP Server

This chapter describes the procedures for upgrading an 11*g* standalone Oracle HTTP Server; one that is not managed by, or registered to, an existing Oracle WebLogic Server (WLS) domain.

> **Note:** If you are upgrading an Oracle WebLogic managed Oracle HTTP Server, see *Upgrading to the Oracle Fusion Middleware Infrastructure*.

This chapter contains the following sections:

- Section 2.2, "Upgrading a Standalone Oracle HTTP Server (OHS)"
- Section 2.3, "Performing Post-Upgrade Tasks"

> **Note:** The information in this chapter assumes that you have read and performed any required pre-upgrade tasks in *Planning an Upgrade of Oracle Fusion Middleware*.

2.1 Important Pre-Upgrade Considerations

Before you begin the upgrade, carefully review the following sections to determine if upgrading your standalone 11g Oracle HTTP Server (OHS) to 12c (12.1.2) will cause any issues with your existing setup.

- WebCache 11g Users
- WebGate 11g Users
- Application Artifacts from 11g

> **Note:** Before you begin your upgrade, make sure that you have reviewed *Understanding Interoperability and Compatibility*. This guide provides additional 12c (12.1.2) pre-upgrade considerations.

2.1.1 WebCache 11g Users

Consider the following limitations if you are using WebCache in your 11g environment:

- There is no WebCache in 12c. Correspondingly, there is no upgrade for WebCache.

- WebCache 11g front-ending a 12c OHS is not a certified combination.

- If both WebCache and OHS are used in 11g, only the OHS can be upgraded to 12c. In that case, the 11g WebCache needs to be disabled and configuration changes have to be made to direct the traffic to OHS directly.

- If both WebCache and OHS are used in 11g, and they are registered to a Oracle WebLogic Server (WLS) domain for administering them through Fusion Middleware Control, then the WLS domain also needs to be upgraded to 12c. In that case, the associated OHS will also be upgraded to 12c. However, the WebCache will be removed from the 12c Fusion Middleware Control.

2.1.2 WebGate 11g Users

WebGate is included as part of OHS 12c (12.1.2) installation and will be upgraded as part of the OHS upgrade process through Upgrade Assistant.

2.1.3 Application Artifacts from 11g

If you have 11g application artifacts that you will continue to use in 12c (12.1.2), carefully review the following:

- As part of upgrading OHS from an 11g Oracle instance to a 12c domain, the OHS configuration directory layout is being migrated from an Oracle instance to a standalone domain.

- Oracle HTTP Server 11*g* configuration files that reside in the component configuration directory of the Oracle instance will be migrated automatically.

- Application artifacts that reside within the Oracle instance, including any combination of static files (such as HTML or images, CGI or FastCGI scripts or applications, or third-party modules), must be migrated manually after the upgrade to 12c (12.1.2).

   For more information, see Section 2.3.1, "Migrating 11g Application Artifacts".

2.2 Upgrading a Standalone Oracle HTTP Server (OHS)

Perform the following tasks to complete the standalone OHS upgrade:

- Task 1, "Installing the Standalone OHS"

- Task 2, "Starting the Upgrade Assistant"

- Task 3, "Completing the Upgrade Assistant Screens"

- Task 4, "Performing Required Post-Upgrade Tasks"

- Task 5, "Verifying the Upgrade"

- Task 6, "Starting the Node Manager"

- Task 7, "Starting the Standalone OHS Server"

Task 1 Installing the Standalone OHS

To start the installation program, perform the following steps.

1. Log in to the target system.

2. Go to the directory in which you downloaded the installation program.

3. Launch the installation program by entering the following command:

- On Linux:

  `./ohs_121200_linux64.bin`

- On Windows:

  `ohs_121200_win64.exe`

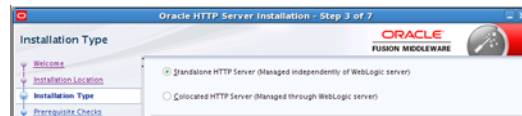The installation program begins to install the software.

For a description of each installation program screen, see "Navigating the Installation Screens" in *Installing and Configuring Oracle HTTP Server*.

Table 2–1 shows the standalone-specific installation options you should select on the installer screens.

CAUTION: After the installation is complete, stop. You will start the Upgrade Assistant to create and configure the standalone OHS domain. DO NOT configure your new Oracle HTTP Server domain with the Configuration Wizard.

Table 2–1   Standalone Oracle HTTP Server Installation Options

Screen	Description and Action
Installation Type	Select the first option **Standalone HTTP Server (Managed independently of WebLogic server)**.
	Click **Next**.
Installation Summary	Review the Standalone OHS installation location, disk space and feature sets that will be installed. Click **Install** only after you have reviewed this information.
	NOTE: Your installation summary will show your specific standalone OHS installation locations and selections. The one below is provided as an example.
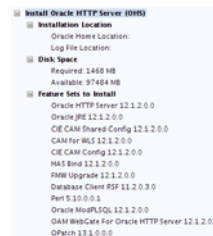
Task 2 Starting the Upgrade Assistant

To start the Upgrade Assistant using the graphical user interface, navigate to the `oracle_common` directory of the Oracle home where your products are installed.

1. Change directory to *ORACLE_HOME*/oracle_common/upgrade/bin on Unix operating systems or *ORACLE_HOME*\oracle_common\upgrade\bin on Windows operating systems.

2. Enter the following command to start the Upgrade Assistant.

On UNIX operating systems:

```
./ua
```

On Windows operating systems:

```
ua.bat
```

Task 3 Completing the Upgrade Assistant Screens

Table 2–2 describes the screens that will appear when you are running the Upgrade Assistant from an Oracle home that contains a standalone Oracle HTTP Server installation.

If you need additional help with any of the installation screens, click the screen name.

Table 2–2   Upgrade Assistant Screens: Upgrading Standalone OHS

Screen	Description
Welcome	This screen provides an overview of the Upgrade Assistant and some information about important pre-upgrade tasks.
Standalone Components	Select **Create a New Domain**.
	Click **Next**.
	NOTE: If you already created a new 12.1.2 standalone domain for your upgraded 11g system components, you can extend the standalone domain with the standalone OHS using the **Update an Existing Domain** option.
	The **Update an Existing Domain** option should only be used if you had previously run the UA and chose the **Create a New Domain** option.
Component List	Displays the standalone system component infrastructure and the Oracle HTTP Server that is available to upgrade.
Prerequisites	This screen requires you to acknowledge that all prerequisites have been met before you continue with the upgrade.
	You must check all of the boxes before you can continue.
Instance Directories	When upgrading OHS, you must provide the directory location of the 11*g* instance that will be upgraded. This instance will be used as a basis for configuring the new 12*c* OHS instance. The 11g OHS installation will not be modified.
	Click **+** to add additional 11*g* instance directories, if necessary.
Node Manager	Use this screen to create a new Node Manager for the standalone domain.
	NOTE: This screen displays only when the **Create a New Domain** option is selected. It does not appear when **Update an Existing Domain** is selected.
Examine	This screen displays the status of the Upgrade Assistant as it examines each component, verifying that the component is ready for upgrade.
	If the Examine phase fails, see "Troubleshooting Your Upgrade"for information on resolving common upgrade errors.

Table 2–2   (Cont.) Upgrade Assistant Screens: Upgrading Standalone OHS

Screen	Description
Upgrade Summary	Use this screen to verify the upgrade options you selected. If you want to save these options to a response file, click **Save** and provide the location and name of the response file. Response files can be used later in a silent upgrade situation.
	For more information about silent or command line installation, see "Performing Silent Upgrades" in *Upgrading with the Upgrade Assistant*.
Upgrade Progress	This screen shows the status of the upgrade process.
Upgrade Success Or Upgrade Failure	The upgrade was successful. The Post-Upgrade Actions window describes the manual tasks you must perform to make the component function in the new installation.
	Or:
	The upgrade failed for the specified component(s) and Upgrade Assistant will have to be restarted.
	If the upgrade fails, see "Troubleshooting Your Upgrade" for information on resolving common upgrade errors.

Task 4 Performing Required Post-Upgrade Tasks

Depending on your environment, you may be required to perform additional post-upgrade tasks after the upgrade. See Performing Post-Upgrade Tasks to determine if any additional tasks are required for your use case scenarios.

Task 5 Verifying the Upgrade

To verify that the OHS upgrade was successful, launch the server and verify that it is working as expected. Successfully completing Tasks 6 and 7 will be your first indication of a successful upgrade.

If you experience post-upgrade issues, you will need to troubleshoot the installation and retry the upgrade. For more information, see "Troubleshooting Oracle HTTP Server" in *Administering Oracle HTTP Server*.

Task 6 Starting the Node Manager

To start Node Manager, go to the `DOMAIN_HOME`/bin directory.

On UNIX operating systems, start the Node Manager as shown below, using `nohup` and `nm.out` as an example output file:

```
nohup ./startNodeManager.sh > nm.out&
```

On Windows operating systems, run:

```
startNodeManager.cmd
```

> **Note:**   On Windows operating systems, it is recommended that you configure Node Manager to run as a startup service. This allows Node Manager to start up automatically each time the system is restarted.
>
> For more information, see "Running Node Manager as a Startup Service" in *Administering Node Manager for Oracle WebLogic Server*.

Task 7 Starting the Standalone OHS Server

To start the standalone OHS server, go to the `DOMAIN_HOME`/bin directory and execute the following command:

On Unix operating systems:

DOMAIN_HOME/bin/startComponent.sh *ohs_name*

On Windows operating systems:

DOMAIN_HOME\bin\startComponent.cmd *ohs_name*

For more information, see "Starting and Stopping System Components" in *Administering Oracle Fusion Middleware*.

2.3 Performing Post-Upgrade Tasks

This section describes the post-upgrade tasks that are required for some upgrade scenarios. Not all tasks will apply to your upgrade scenario. Review the following sections and perform only those tasks that are applicable to your environment:

■ Migrating 11g Application Artifacts

2.3.1 Migrating 11g Application Artifacts

You will have to manually migrate any 11*g* application artifacts that reside within the Oracle instance, including any combination of static files such as HTML or images, CGI or FastCGI scripts or applications, or third-party modules. Application artifacts that were referred to by the 11*g* configuration, but were stored in directories outside of the Oracle instance, will continue to be referenced by the migrated configuration used by Oracle HTTP Server 12c.

For example, if a third-party plug-in module was installed into the Oracle home with Oracle HTTP Server 11g, and the configuration referenced it by the Oracle home location using the configuration in the example below, the plug-in module must be installed manually into the Oracle home with 12*c* (12.1.2) Oracle HTTP Server or the upgraded configuration must be modified to reference it elsewhere.

```
LoadModule example_module "${ORACLE_HOME}/ohs/modules/mod_example.so"
```

Similarly, if static files were copied into the /htdocs directory within the 11*g* component configuration directory, then they too must be manually copied into the 12*c* (12.1.2) instance configuration directory or the upgraded configuration must be modified to reference it elsewhere. Other types of application artifacts must be manually migrated in a similar manner.