

Oracle® Fail Safe Installation Guide



Release 4.2.1 for Microsoft Windows

E66237-03

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

ORACLE®

Oracle Fail Safe Installation Guide, Release 4.2.1 for Microsoft Windows

E66237-03

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Contents

Preface

Audience	vii
Documentation Accessibility	vii
Related Documents	vii
Conventions	viii

1 Introduction and Preinstallation Checklist

1.1 Cluster Setup Prerequisites	1-1
1.1.1 User Account	1-2
1.2 Software Compatibility	1-2
1.3 Disk Space Requirements	1-2
1.4 Installation and Configuration	1-2
1.5 Recommended Order for Software Installation	1-3
1.6 Adding a Node to an Existing Cluster	1-4
1.7 Postinstallation Procedures	1-4

2 Installing Oracle Fail Safe

2.1 Reviewing the Preinstallation Checklist	2-1
2.2 Installing Oracle Fail Safe Software	2-2
2.2.1 Start Oracle Universal Installer	2-3
2.2.2 Welcome Window: Validate installed components and Oracle homes	2-3
2.2.3 Select Installation Type Window: Select an installation type	2-3
2.2.4 Specify Home Details Window: Specify the Oracle home directory for the Oracle Fail Safe installation	2-3
2.2.5 Available Product Components Window: Select components	2-4
2.2.6 Oracle Fail Safe Server Username Window: Enter a domain user account for Oracle Fail Safe	2-4
2.2.7 Oracle Fail Safe Server Password Window: Enter the password for the domain user account for Oracle Fail Safe	2-5
2.2.8 Summary Window: Validate the component installations	2-5
2.2.9 Install Window: Shows the progress of the installation	2-5

2.2.10	Configuration Assistants Window: Configures and starts the selected components	2-5
2.2.11	End of Installation Window: Confirm the Installation	2-6
2.2.12	Validate the Oracle Fail Safe installation	2-6

3 Getting Started

3.1	About Starting the Manager and Completing Oracle Fail Safe Server Installation	3-1
3.1.1	Starting Oracle Fail Safe Manager	3-1
3.1.2	Completing Oracle Fail Safe Server Installation	3-1
3.2	Adding a Cluster	3-2
3.3	Accessing Oracle Fail Safe Manager Tutorial and Online Help	3-3

4 Deinstalling Oracle Fail Safe

4.1	Deinstalling Oracle Fail Safe Software	4-1
4.1.1	Close Event Viewer	4-1
4.1.2	Remove Oracle resources from the cluster groups	4-1
4.1.3	Deinstall Oracle Fail Safe Software	4-2

5 Troubleshooting Installation Problems

5.1	Overview of Problems Installing Oracle Fail Safe Server	5-1
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A Rolling Upgrades and Patches

A.1	Preparing Users for the Upgrade	A-1
A.2	Recommended Order for Upgrading Software	A-2
A.3	Upgrading the Oracle Fail Safe Software and Installing Patches	A-2
A.4	Upgrading or Patching a Highly Available Oracle Database	A-4
A.4.1	Upgrading a Database Configured for High Availability	A-5
A.4.2	Patching an Oracle Database Configured for High Availability	A-6
A.5	Upgrading Other Oracle Product Software	A-8

B Silent Mode Installations and Deinstallations

B.1	Introducing Silent Mode Installations and Deinstallations of Oracle Fail Safe	B-1
B.1.1	Selecting a Response File	B-1
B.2	Performing Steps for a Silent Mode Installation or Deinstallation	B-2
B.2.1	Copy the response file template from the installation kit	B-2
B.2.2	Edit the response file	B-2

B.2.3	Run Oracle Universal Installer in silent mode	B-4
B.2.4	Saving a Response File after Installation	B-5
B.3	Contents of a Response File	B-5

Index

List of Tables

A-1	Steps Required to Upgrade Oracle Fail Safe	A-3
A-2	Steps for Upgrading a Database Configured for High Availability	A-5
A-3	Steps for Patching a Database Configured for High Availability	A-6
A-4	Steps Required to Upgrade Other Oracle Product Software	A-9

Preface

This guide provides step-by-step procedures to help you install, deinstall, and upgrade Oracle Fail Safe.

Audience

This document is intended for anyone who must perform the initial setup and installation of Oracle Fail Safe on Microsoft Windows systems.

In general, this book defines technical terms and concepts when they are introduced. However, it assumes that you know the underlying operating system and are familiar with basic system administration tasks. Also, you should be familiar with Microsoft Windows Failover Clusters.

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Related Documents

For more information, see the following documents in the Oracle Fail Safe documentation set:

- *Oracle Fail Safe Release Notes for Microsoft Windows*
- *Oracle Fail Safe Concepts and Administration Guide for Microsoft Windows*
- *Oracle Fail Safe Error Messages for Microsoft Windows*
- For online assistance, Oracle Fail Safe Manager provides online help topics and a link to the online documentation set. To access the online help topics, select **Help Topics** from the **Help** menu bar in Oracle Fail Safe Manager.

For information about related products, refer to the following documentation:

- For more information about cluster systems, see the Microsoft Windows Failover Clusters documentation.

- For more information about other related products, see the documentation for those products.

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 screen, or text that you enter.

1

Introduction and Preinstallation Checklist

This guide uses a step-by-step approach to assist you with the installation of Oracle Fail Safe. Oracle Fail Safe installation provides the options for installing Oracle Fail Safe Client and Oracle Fail Safe Server. Typically, you would install the client and the server but you may want to customize the installation depending on your needs. For example, if you want to use a single desktop system to manage all your clusters, then you may want to install Oracle Fail Safe Manager on that system.

Oracle Fail Safe Manager is a graphical user interface for configuring and managing Oracle single-instance databases.

You perform the installation using Oracle Universal Installer graphical user interface. If you perform the same installation on multiple systems, you can run Oracle Universal Installer in silent mode to automate the installation process in batch files or scripts. For information on silent installations, see [Silent Mode Installations and Deinstallations](#) (page B-1).

The following topics are discussed in this chapter:

- [Cluster Setup Prerequisites](#) (page 1-1)
- [Software Compatibility](#) (page 1-2)
- [Disk Space Requirements](#) (page 1-2)
- [Installation and Configuration](#) (page 1-2)
- [Recommended Order for Software Installation](#) (page 1-3)
- [Adding a Node to an Existing Cluster](#) (page 1-4)
- [Postinstallation Procedures](#) (page 1-4)

1.1 Cluster Setup Prerequisites

You must perform the following configuration tasks before installing Oracle Fail Safe:

- Create or choose a Windows user account that Oracle Fail Safe can use to manage the cluster and access Oracle cluster resources. See "[User Account](#) (page 1-2)" for more information.
- Select the **Validate Cluster** action found in the **Actions** menu of Microsoft Windows Failover Cluster Manager and then review the results by running the **View Validation Report** action. Resolve any issues found during Microsoft Windows Failover Cluster validation process before proceeding.
- If you install Oracle Fail Safe on a subset of the nodes in the cluster, check that the Cluster Group is running on one of the nodes where you installed Oracle Fail Safe. You can view or change the location of the Cluster Group using Microsoft Windows Failover Cluster Manager. Oracle Fail Safe will not function properly if the Cluster Group is moved to a node that does not have Oracle Fail Safe installed.

- Ensure that Microsoft Windows Event Viewer is not running while installing Oracle Fail Safe. This is an issue only if installing on top of an existing installation (in-place upgrade).

 **Note:**

If you attempt to install Oracle Fail Safe while the Microsoft Windows Event Viewer is running, the installation procedure may return an error indicating that it cannot copy the `fsus.dll` file (`fsja.dll` on Japanese systems) and asks you to retry, ignore, or cancel. You can continue the installation if you stop the Microsoft Windows Event Viewer and then click **Retry** in the Oracle Fail Safe installation Error window.

1.1.1 User Account

The Oracle Fail Safe Server will login using the account you specify during the installation. The user account must be a domain user, but it does not need any special domain privileges. The account needs to be a member of each cluster node's local Administrator user group. Oracle Fail Safe will use the privileges of this user account to manage the cluster and when accessing certain Oracle resources such as Oracle databases. All nodes in the cluster must use the same user account.

1.2 Software Compatibility

See *Oracle Fail Safe Release Notes for Microsoft Windows* for information about current software compatibility for different operating systems.

1.3 Disk Space Requirements

The following table describes the disk space requirements for each installation type:

Installation Type	Disk Space (MB)
Typical Install	243
Client Only Install	223

1.4 Installation and Configuration


Oracle Fail Safe users running Windows 7 require the following prerequisites:

- Windows Management Framework 4.0
- .NET 4.0 or later

You must ensure that these systems are upgraded before installing Oracle Fail Safe. For more information on the installation instructions, see the Microsoft documentation.

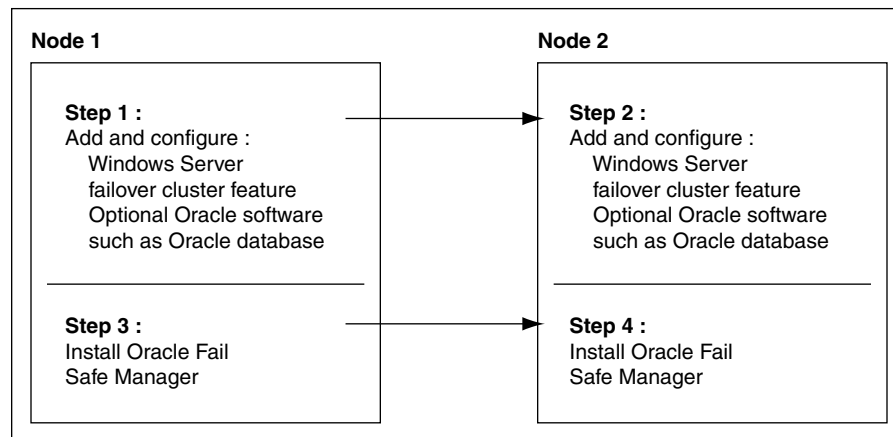
1.5 Recommended Order for Software Installation

Although this guide describes the Oracle Fail Safe installation in detail, other products must also be installed to implement the Oracle Fail Safe environment. [Figure 1-1](#) (page 1-3) shows the recommended order for installing software on a two-node cluster

 **Note:**

The numbers in [Figure 1-1](#) (page 1-3) do not correspond to the numbered steps in the subsequent list because the list contains more detailed information than the figure.

Figure 1-1 Recommended Order for Installing Software on a Two-Node Cluster



The following list provides more detail about the installation order and other tasks to get started with Oracle Fail Safe:

1. On each cluster node, add and configure the Microsoft Windows Failover Cluster feature.

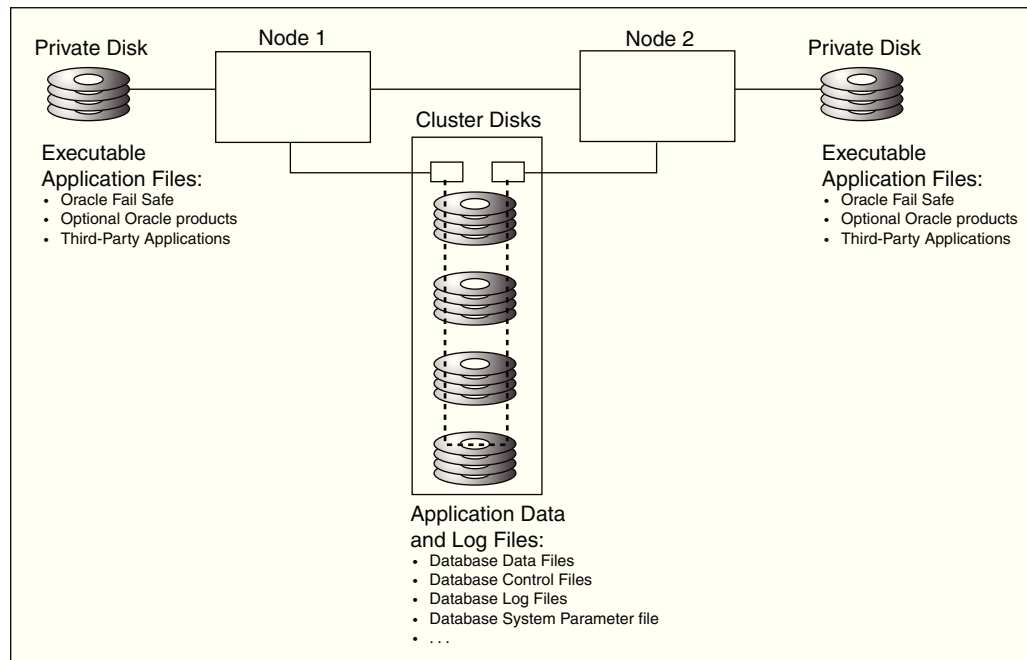
See *Oracle Fail Safe Release Notes for Microsoft Windows* for information about the versions of Microsoft Windows that can be used with Oracle Fail Safe.
2. On each cluster node, install the optional Oracle software (Oracle Database and other applications) that you plan to use with Oracle Fail Safe. Place all application and database data, control, and log files on shared cluster disks so that they can fail over. If you add an Oracle product after Oracle Fail Safe has started, then you must restart Oracle Fail Safe so it can identify the new installation. Do this by restarting the **Cluster Service** action on each node in the cluster. Restarting the **Cluster Service** will force all cluster groups on a node to failover to another node.

If you are installing Oracle Database software, you can create the database before or after you install Oracle Fail Safe. Create the database as you would in a noncluster environment, including the database listener. However, you must install Oracle Database only on a local system disk.

3. On each cluster node, install the server component of Oracle Fail Safe.
See [Installing Oracle Fail Safe](#) (page 2-1) for complete information about installing Oracle Fail Safe.
4. On one or more client systems, optionally, install Oracle Fail Safe Manager (for example, to set up additional management consoles).

Figure 1-2 (page 1-4) lists the software and the files that should be installed on private disks and shared-nothing cluster disks.

Figure 1-2 Software Installed on Private, Shared-Nothing Cluster Disks



1.6 Adding a Node to an Existing Cluster

If you want to add a node to an existing cluster, perform the following operations:

1. Follow Microsoft's instructions to add a node to a cluster.
2. On the new node, install any desired optional Oracle software (Oracle Database and other applications) that you plan to use with Oracle Fail Safe.
3. Install executable application files located on private disks (for example, on the system disk for each node).
4. On the new node, install the server component of Oracle Fail Safe. You can install Oracle Fail Safe Manager at the same time.

1.7 Postinstallation Procedures

After you have successfully installed Oracle Fail Safe, perform the following tasks:

1. If you have installed optional Oracle software:

- Configure the application data and log files on the shared cluster disks.
- Configure the alert and trace files on either the shared cluster disks or on the private disk.

Configuring the alert and trace files on private disks allows the administrator to determine the node where problems occur, but requires that you maintain multiple sets of files. Placing the text parameter file (pfile) on private disks is recommended only when you want the parameters to be different on each cluster node. For example, this can be useful if you want a database to use fewer resources on its failover node than on its primary node (such as when you know that another application or database on the failover node needs resources).

For information about re-creating databases on cluster disks, refer to the import and export documentation that is specific to your database.

2. Start Oracle Fail Safe Manager, then connect to the cluster alias with a domain account that has Administrator privileges on each cluster node. You must confirm that the installation is completed when prompted. If you perform a silent installation, then you can complete the installation by running the PowerShell command `Test-OracleCluster`.

See *Oracle Fail Safe Concepts and Administration Guide for Microsoft Windows* for more information about the command line utilities.

See [Getting Started](#) (page 3-1) for information to help you get started with Oracle Fail Safe.

3. Refer to the *Oracle Fail Safe Tutorial for Microsoft Windows* for step-by-step information about creating a group and adding resources to it.

2

Installing Oracle Fail Safe

This chapter provides step-by-step instructions for installing Oracle Fail Safe Manager, Oracle Fail Safe, and additional server components specific to Oracle Fail Safe.

 **Note:**

If you are upgrading Oracle Fail Safe from an earlier release, see [Rolling Upgrades and Patches](#) (page A-1) for information about performing a rolling upgrade.

The discussions in this chapter assume that you have set up your hardware configuration, installed Microsoft Windows, and configured Microsoft Windows Failover Clusters. To configure Oracle products or other components with Oracle Fail Safe, install the component software before installing Oracle Fail Safe.

The following topics are discussed in this chapter:

- [Reviewing the Preinstallation Checklist](#) (page 2-1)
- [Installing Oracle Fail Safe Software](#) (page 2-2)

2.1 Reviewing the Preinstallation Checklist

Perform the following preinstallation checks:

- Validate the release of any other Oracle software or third-party software that you plan to use with Oracle Fail Safe against the software compatibility guidelines that are documented in *Oracle Fail Safe Release Notes for Microsoft Windows*.
- Configure Windows Failover Clusters and ensure that its validation checks execute successfully.
- If your applications uses MSDTC then configure it for the cluster. Consult the Microsoft documentation for more information on how to setup MSDTC.
- If necessary, install the Microsoft Remote Server Administration Tools (RSAT) for client only installations.
- Validate that the cluster is up and running on all nodes.
- Remove the previous version of Oracle Fail Safe, if necessary.
- Install additional components that you want to configure with Oracle Fail Safe (such as Oracle Database and so on).
- Log on to the cluster nodes using the same domain user account that has Administrator privileges. The account from which you run Oracle Universal Installer must have Administrator privileges. This account only needs local system Administrator privileges. It does not require domain Administrator privileges.

2.2 Installing Oracle Fail Safe Software

After you have installed Microsoft Windows Server, and have configured and validated the Microsoft Windows Failover Clusters as described in the Microsoft documentation, you are ready to install Oracle Fail Safe. Install Oracle Fail Safe on all cluster nodes, but perform the Oracle Fail Safe installation sequentially on only one node at a time. Optionally, you can install Oracle Fail Safe Manager on the cluster nodes at the same time.

To install Oracle Fail Safe Manager on client systems, you must be running Microsoft Windows. If Oracle Fail Safe detects that the Microsoft Windows Failover Cluster Manager is installed, then it creates an MMC console named Cluster Tools. This console contains both the Microsoft Windows Failover Cluster Manager and the Oracle Fail Safe Manager MMC snap-ins. It also provides the ability to use both the tools in a single interface.

See *Oracle Fail Safe Release Notes for Microsoft Windows* for information about the required versions of Microsoft Windows Server.



Note:

You can update a Microsoft Windows service pack from one supported version to another, regardless of whether Oracle Fail Safe or the software for resources that Oracle Fail Safe supports has been installed.

Perform the following steps to install Oracle Fail Safe:

- [Start Oracle Universal Installer](#) (page 2-3)
- [Welcome Window: Validate installed components and Oracle homes](#) (page 2-3)
- [Select Installation Type Window: Select an installation type](#) (page 2-3)
- [Specify Home Details Window: Specify the Oracle home directory for the Oracle Fail Safe installation](#) (page 2-3)
- [Available Product Components Window: Select components](#) (page 2-4)
- [Oracle Fail Safe Server Username Window: Enter a domain user account for Oracle Fail Safe](#) (page 2-4)
- [Oracle Fail Safe Server Password Window: Enter the password for the domain user account for Oracle Fail Safe](#) (page 2-5)
- [Summary Window: Validate the component installations](#) (page 2-5)
- [Install Window: Shows the progress of the installation](#) (page 2-5)
- [Configuration Assistants Window: Configures and starts the selected components](#) (page 2-5)
- [End of Installation Window: Confirm the Installation](#) (page 2-6)
- [Validate the Oracle Fail Safe installation](#) (page 2-6)

2.2.1 Start Oracle Universal Installer

Use Oracle Universal Installer, which is included in the Oracle Fail Safe software kit, to install Oracle Fail Safe.

Oracle Universal Installer automatically performs the installation procedure in the same language used by the operating system. For example, if the node operating system is in Japanese, then Oracle Universal Installer automatically performs the installation in Japanese.

When Oracle Universal Installer begins, a command interpreter window opens, indicating that the installer is checking prerequisites. If all prerequisites are met, then the Welcome window opens. If some or all prerequisite checks fail, then you are asked whether you want to continue. If you choose to continue, then the installation may fail.

2.2.2 Welcome Window: Validate installed components and Oracle homes

When the Welcome window opens, you can optionally click **Installed Products** to view the Oracle components that are installed and the Oracle homes where they reside. Click **Next** when ready to proceed.

2.2.3 Select Installation Type Window: Select an installation type

In the Installation Types window, specify the type of installation to perform, as follows:

1. Select an installation type:
 - Select **Typical** to install Oracle Fail Safe Manager and Oracle Fail Safe server. Typical is the default installation type.
 - Select **Client Only** to install Oracle Fail Safe Manager.
 - Select **Custom or Reinstall** to specify each components that you want to install or reinstall.
2. Click **Next**.

2.2.4 Specify Home Details Window: Specify the Oracle home directory for the Oracle Fail Safe installation

In the Specify Home Details window, specify the Oracle home and its destination path, as follows:

1. Under **Destination**, in the **Name** field, enter a unique name for the Oracle home to install the Oracle Fail Safe software.
2. Under **Destination**, in the **Path** field, enter the directory specification for the Oracle home entered in the previous step.
3. Click **Next**.

 **Note:**

- You must install Oracle Fail Safe on a private disk, not on a shared cluster disk.
- You must install Oracle Fail Safe server software using the same home name and path on each cluster node.
- You cannot install Oracle Fail Safe into a home directory which is used by another product, such as Oracle Database.

2.2.5 Available Product Components Window: Select components

If you have selected **Typical** installation in [Select Installation Type Window: Select an installation type](#) (page 2-3), then proceed to [Oracle Fail Safe Server Username Window: Enter a domain user account for Oracle Fail Safe](#) (page 2-4).

If you have selected **Client Only** in [Select Installation Type Window: Select an installation type](#) (page 2-3), then proceed to [Summary Window: Validate the component installations](#) (page 2-5).

If you have selected **Custom or Reinstall** in [Select Installation Type Window: Select an installation type](#) (page 2-3), then this window lets you specify which components to install, as follows:

- By default, all Oracle Fail Safe components are selected. You must deselect the components that you do not want to install.
- You can deselect Oracle Fail Safe Server, Oracle Universal Installer (OUI), or Oracle Fail Safe Manager.
- Once you select the required Oracle Fail Safe components, click **Next**.

2.2.6 Oracle Fail Safe Server Username Window: Enter a domain user account for Oracle Fail Safe

If you chose to install the Oracle Fail Safe server in [Select Installation Type Window: Select an installation type](#) (page 2-3), then this window lets you specify the username as follows:

In the Oracle Fail Safe Server Username window:

1. Enter a value in the Username box for a user account that has Administrator privileges.

 **Note:**

The user account only needs local node Administrator privileges. It does not require domain Administrator privileges.

For example, if you are using the `EXAMPLEDOMAIN` and your user name is `admin`, then enter `EXAMPLEDOMAIN\admin`.

2. Click **Next**.

Oracle Fail Safe uses the account you specify to access the cluster. Oracle Fail Safe runs as a Microsoft Windows service (called Oracle Fail Safe) under a user account that must be a domain user account (not the system account) that has Administrator privileges on all nodes of this cluster. The account must be the same on all nodes of this cluster, otherwise you will receive an error message when you try to attempt clusterwide operations, such as Validate, Add Resource, and so on.

2.2.7 Oracle Fail Safe Server Password Window: Enter the password for the domain user account for Oracle Fail Safe

If you chose to install the Oracle Fail Safe server in [Select Installation Type Window: Select an installation type](#) (page 2-3), then the window allows you to specify the password. In the Oracle Fail Safe Server Password window, enter the following:

1. The password for the account in the **Enter Password** and **Confirm Password** boxes.
2. Click **Next**.

2.2.8 Summary Window: Validate the component installations

The Summary window lists the components selected for this installation.

Validate that the information in the Summary window is correct. If the summary includes a component that you do not want to install, then click **Back** button to go back to the installation dialog box and deselect the component.

If the information in the Summary window is correct, then click **Install** to start the installation.

 **Note:**

If your system does not have sufficient space to perform the installation, then the text below **Space Requirements** is displayed in red.

2.2.9 Install Window: Shows the progress of the installation

The Install window displays the progress of the installation.

Typically, the installation completes in 1 to 5 minutes.

2.2.10 Configuration Assistants Window: Configures and starts the selected components

If the installation is successful, then the Configuration Assistants window opens displaying the tool name, status of the configuration process, and type.

2.2.11 End of Installation Window: Confirm the Installation

Oracle Universal Installer displays the End of Installation window. To confirm the installation of Oracle Fail Safe and any additional components, click **Installed Products**.

2.2.12 Validate the Oracle Fail Safe installation

See [Getting Started](#) (page 3-1) for information about Validating the Oracle Fail Safe installation.

3

Getting Started

This chapter contains the following topics to help you connect to a cluster and start using Oracle Fail Safe Manager:

- [About Starting the Manager and Completing Oracle Fail Safe Server Installation](#) (page 3-1)
- [Adding a Cluster](#) (page 3-2)
- [Accessing Oracle Fail Safe Manager Tutorial and Online Help](#) (page 3-3)

3.1 About Starting the Manager and Completing Oracle Fail Safe Server Installation

This section describes how to complete the installation of Oracle Fail Safe Server, validate the cluster, start Oracle Fail Safe Manager, add a cluster, and connect to a known cluster.

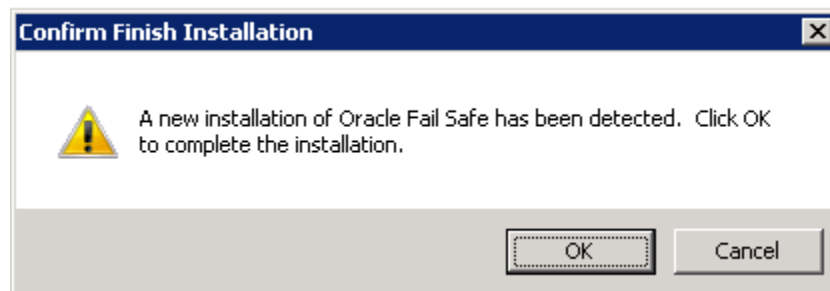
3.1.1 Starting Oracle Fail Safe Manager

After the installation completes, start Oracle Fail Safe Manager.

3.1.2 Completing Oracle Fail Safe Server Installation

After you install the Oracle Fail Safe software on all nodes of the cluster, you must complete the installation. When the Oracle Fail Safe Manager connects to a cluster that has a new server installation, it detects that the installation must be finished and prompts you to finish the installation. A dialog box appears as shown in [Figure 3-1](#) (page 3-1).

Figure 3-1 The New Installation Needs to be Completed



When you click **OK**, Oracle Fail Safe verifies the cluster to complete the registration of the Oracle cluster resource types.

You can validate the cluster at any time by selecting the **Validate** action and should run it whenever the cluster configuration changes.

Validate cluster performs operations to validate that:

- The Oracle homes are identical on all nodes
- The Oracle Fail Safe release is identical on all nodes
- The resource providers are configured identically on all nodes
- The resource providers are disabled if the required software has not been installed

Validate cluster action also registers with Microsoft Windows Failover Clusters the resource DLLs for the resource types that Oracle Fail Safe supports.

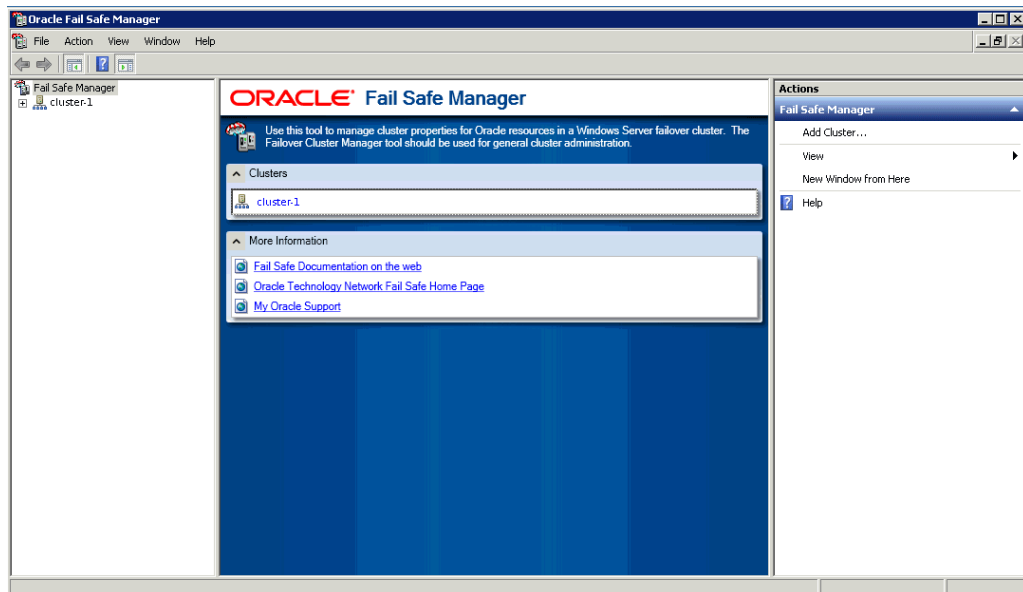
For more information about **Validate** cluster action, refer to *Oracle Fail Safe Concepts and Administration Guide for Microsoft Windows*.

3.2 Adding a Cluster

When you open a Fail Safe Manager running on a cluster node, it will automatically connect to the cluster. .

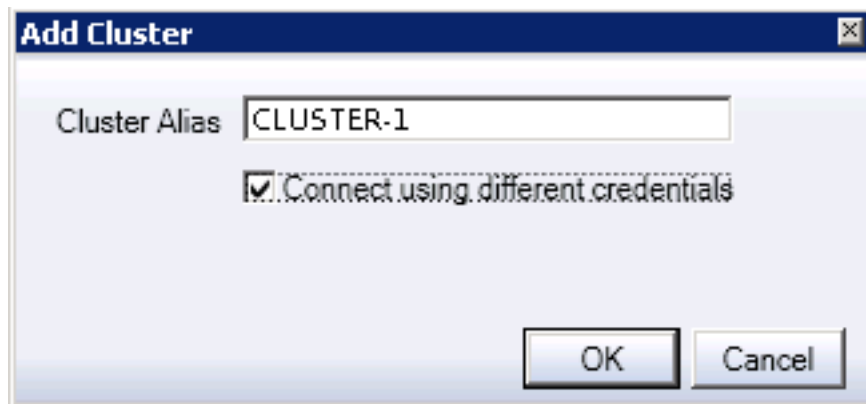
If you run Fail Safe Manager from a standalone node, then you will need to add a cluster to the list of clusters known by the Fail Safe Manager. Select the **Add Cluster** action under the **Actions** menu of Oracle Fail Safe Manager main page as shown in [Figure 3-2](#) (page 3-2)

Figure 3-2 Adding a Cluster to the Clusters List



A dialog box prompts you for the name of the cluster that you would like to manage. Enter the name of the cluster as shown in [Figure 3-3](#) (page 3-3).

Figure 3-3 Entering the Name of the Cluster



3.3 Accessing Oracle Fail Safe Manager Tutorial and Online Help

For detailed step-by-step instructions about using Oracle Fail Safe Manager, refer to the *Oracle Fail Safe Tutorial for Microsoft Windows* and online help.

To access the tutorial, go to the first page of Oracle Fail Safe Manager and select **Fail Safe Documentation** for step-by-step instructions.

The online help document provides information on how to use the Oracle Fail Safe Manager while the other documents in the Oracle Fail Safe documentation set provides more in-depth information on using Oracle resources in Microsoft Windows Failover Clusters. To access the online help, click the **Help** button in the Oracle Fail Safe pages.

4

Deinstalling Oracle Fail Safe

This chapter provides step-by-step instructions for deinstalling Oracle Fail Safe software.

You might want to deinstall Oracle Fail Safe, for example, to remove older software or to move Oracle Fail Safe software to another Oracle home. However, do not use the deinstallation instructions in this chapter to upgrade the Oracle Fail Safe software to the current release.

See [Rolling Upgrades and Patches](#) (page A-1) for information about performing a rolling upgrade. See [Silent Mode Installations and Deinstallations](#) (page B-1) for information about performing a silent mode deinstallation.

Note:

Deinstalling Oracle Fail Safe will restart the "Cluster Service" service which will cause all cluster groups currently running on that node to failover to another node in the cluster.

4.1 Deinstalling Oracle Fail Safe Software

Deinstalling Oracle Fail Safe software involves removing resources from groups and reconfiguring them to run on a specific cluster node.

Perform the following steps to remove Oracle Fail Safe software:

- [Close Event Viewer](#) (page 4-1)
- [Remove Oracle resources from the cluster groups](#) (page 4-1)
- [Deinstall Oracle Fail Safe Software](#) (page 4-2)

4.1.1 Close Event Viewer

If you run the Windows Event Viewer and display any Oracle Fail Safe events, then you should close the Event Viewer before deinstalling Oracle Fail Safe.

4.1.2 Remove Oracle resources from the cluster groups

Using Oracle Fail Safe Manager, perform the following tasks:

1. Move each group to the node that will host the standalone Oracle resources after Oracle Fail Safe is deinstalled.
2. Remove all Oracle resources from your groups.
3. Exit Oracle Fail Safe Manager.

4.1.3 Deinstall Oracle Fail Safe Software

Start Oracle Universal Installer and perform the following tasks:

1. Click **Deinstall Products** to display Inventory dialog box.
2. Select the Oracle home that contains the Oracle Fail Safe software.
3. Expand the tree view and select the check box next to Oracle Fail Safe.
4. Click **Remove**.
5. There is a Confirmation dialog box prompting the user whether he wants to continue with the deinstallation of the product. The dialog box states the following message "Are you sure you want to deinstall the following products and their dependent components?". Click **Yes** to progress to the Remove dialog box showing the progress of the deinstallation process. Click **No** to stop the deinstallation process.
6. Click **Exit** to exit Oracle Universal Installer.

5

Troubleshooting Installation Problems

This chapter provides general information to help you troubleshoot problems with Oracle Fail Safe installations and deinstallations.

5.1 Overview of Problems Installing Oracle Fail Safe Server

If you run Oracle Universal Installer on a system that does not have Microsoft Windows Failover Cluster configured (such as a client system) and you try to install Oracle Fail Safe Server, the installer displays an error that the Oracle Fail Safe Server must be installed on a system running Microsoft Windows Failover Clusters. You must configure Microsoft Windows Failover Cluster before installing Oracle Fail Safe Server.

If this message is displayed, do not continue with the installation. Click **OK** to go back to the installation windows and choose a Client Only installation. See [Installing Oracle Fail Safe](#) (page 2-1) for more information about Client Only installation.

See Also:

"Oracle Grid Infrastructure for a Standalone Server" and "Installing Oracle Database" sections in the *Oracle Database Installation Guide for Microsoft Windows* for more information on how to troubleshoot installation problems

A

Rolling Upgrades and Patches

Oracle Fail Safe allows a cluster system to continue providing service while the software is being upgraded to the next release. This process is called a rolling upgrade because each node is upgraded and restarted in turn, until all server nodes and all client nodes have been upgraded. You might want to perform a rolling upgrade for the following reasons:

- To upgrade the Oracle Fail Safe software or install patches
- To upgrade or patch a highly available Oracle single-instance database
- To upgrade or patch other Oracle software

When you upgrade Oracle software, do not start the installation when any Oracle Fail Safe Manager operations or Microsoft Windows Failover Cluster Manager operations are in progress on groups. You must wait for a quiet period in cluster operations before you proceed with the upgrade.

Note:

To ensure minimal downtime and to identify any potential issues with other software that might be running on the cluster, Oracle recommends that you test the operations described in this appendix on an identically configured test cluster before you upgrade the production cluster.

This appendix includes the following topics:

- [Preparing Users for the Upgrade](#) (page A-1)
- [Recommended Order for Upgrading Software](#) (page A-2)
- [Upgrading the Oracle Fail Safe Software and Installing Patches](#) (page A-2)
- [Upgrading or Patching a Highly Available Oracle Database](#) (page A-4)
- [Upgrading Other Oracle Product Software](#) (page A-8)

A.1 Preparing Users for the Upgrade

During a rolling upgrade, you need to perform a planned failover to make the cluster resources running on one node move to another node. Each planned failover will disconnect users and cause a rollback of any interrupted, uncommitted work if a database is involved in the operation.

This brief outage typically is less than 1 minute and always is less than the downtime that would be experienced by users if Oracle Fail Safe was not installed. To prevent loss of work, notify users that you plan to shut down the system, and have all users commit their work and log off before you perform the failover. Advise users when they can reconnect and resume work after the database fails over to another cluster node.

While you are performing upgrades to a two-node cluster, remember that failback is disabled and your cluster is not protected against failures. In addition, each time that you stop and restart the cluster service on a node, all remaining cluster resources running on the node fail over to another node with a similar brief loss of service.

A.2 Recommended Order for Upgrading Software

Oracle recommends the following procedure for upgrading software on your cluster when just the database software or both the database software and Oracle Fail Safe software must be upgraded.

1. Remove each database from its group.
2. Upgrade the Oracle Database software and the Oracle Fail Safe software if required. The order in which you perform these two upgrades is not important.
3. Add each database back to its group.

If you are only performing an Oracle Fail Safe software upgrade or applying a patch to the database software (but you are not going to upgrade the database software), then you do not need to remove any database from its group before doing an upgrade or applying the patch.

Patching typically involves updating the software from one release to another where only the fourth or fifth digit in the release number changes, for example, 11.1.0.6 to 11.1.0.7. An upgrade is required when the first, second, or third digit in the release number changes, for example 11.1.0 to 11.2.0 or 11.2.0 to 12.1.0.



See Also:

Oracle Database Upgrade Guide for information about prerequisites for preparing a new Oracle home on Windows

A.3 Upgrading the Oracle Fail Safe Software and Installing Patches

This section describes how to perform a rolling upgrade when you want to upgrade the Oracle Fail Safe software on a cluster that is currently running Oracle Fail Safe (for example, to upgrade the cluster from Oracle Fail Safe release 4.1.1 to release 4.2.1). The tasks described in this section apply to upgrades from any Oracle Fail Safe release before the current Oracle Fail Safe release.

If you are performing a rolling upgrade of the Oracle Fail Safe software, then you must upgrade the Oracle Fail Safe and Oracle Fail Safe Manager software clusterwide. You cannot run multiple releases of the Oracle Fail Safe software on the same cluster. See *Oracle Fail Safe Release Notes for Microsoft Windows* for information about the compatibility of various Oracle Fail Safe Manager releases with various releases of Oracle Fail Safe Server or Oracle Fail Safe.

Perform the steps described in [Table A-1](#) (page A-3) on only one cluster node at a time.

Table A-1 Steps Required to Upgrade Oracle Fail Safe


Step	Task	Tool	Comments
1	Change the group attributes to the Prevent Failback mode for each group.	Microsoft Windows Failover Cluster Manager	<p>Perform the following steps:</p> <ol style="list-style-type: none"> 1. Select a group from the Microsoft Windows Failover Cluster Manager tree view. 2. Select the Properties action listed at the top of the Actions menu before selecting Failover tab. Note the current settings and change the setting to Prevent Failback. 3. Repeat these steps for each group in the cluster. <p>Changing the failback attributes prevents the group from failing back after its preferred node is restarted (later in Step 6).</p>
2	Move groups off the node on which you plan to perform the upgrade.	Microsoft Windows Failover Cluster Manager	In the tree view, right-click the group, then select Move . Repeat for each group on the node. By moving groups to another node, you can upgrade the current node while users continue to access the group on another node. When moving groups that contain databases with this method, Oracle Fail Safe will perform a checkpoint operation.
3	Exit Microsoft Windows Failover Cluster Manager.	Microsoft Windows Failover Cluster Manager	<p>From the File menu, select Exit.</p> <p>Note: Do not use Oracle Fail Safe Manager on other cluster nodes during the rest of the upgrade procedure until you run Validate cluster in Step 11.</p>
4	Deinstall the previous release of Oracle Fail Safe Manager and Oracle Fail Safe.	Oracle Universal Installer	See Deinstalling Oracle Fail Safe (page 4-1) for instructions.
<div style="border: 1px solid #0070C0; padding: 10px; background-color: #E6F2FF;">  Note: Perform this step only when installing a new release. </div>			
5	Install the current Oracle Fail Safe release or patch set.	Oracle Fail Safe installation kit	You must install the same release of Oracle Fail Safe software on all server nodes in the cluster. Follow the installation instructions in Installing Oracle Fail Safe (page 2-1).
6	Move groups that contain Oracle databases to the upgraded node.	Microsoft Windows Failover Cluster Manager	<p>Move cluster groups that contain Oracle databases to the upgraded node.</p> <p>Note: To avoid problems that can arise due to version mismatches, do not use Oracle Fail Safe Manager to perform this task; use Microsoft Windows Failover Cluster Manager.</p>
7	Repeat steps 4 through 6 on the other cluster node or nodes.	Various	No comments.

Table A-1 (Cont.) Steps Required to Upgrade Oracle Fail Safe

Step	Task	Tool	Comments
8	Run the Validate cluster operation.	Oracle Fail Safe Manager	Right-click the cluster name in the tree view, then select Validate . This step verifies that there are no discrepancies in the software installation (such as with the release information) on each node in the cluster, and registers resource DLLs.
9	Review the Validate report.	Oracle Fail Safe Manager	Carefully review each error or warning and take corrective action if necessary.
10	Restore the failback policy attributes on the groups.	Microsoft Windows Failover Cluster Manager	Perform the following steps: <ol style="list-style-type: none"> 1. Select a group from the Microsoft Windows Failover Cluster Manager tree view. 2. Select the Properties action listed at the top of the Actions menu before selecting the Failover tab, and restore the original settings (as noted in Step 1) 3. Repeat for each group on the cluster.
11	Move each group back to its preferred node.	Oracle Fail Safe Manager	In the tree view, right-click the group, then select Move . If you are working in a two-node cluster, then you will be asked to confirm the move to the other node. If you are working in a cluster that contains more than two nodes, then you will be asked to select the destination node. This step redistributes the workload across the nodes in the cluster.
12	Run the Validate group operation on all groups.	Oracle Fail Safe Manager	In the tree view, right-click a group, then select Validate to check all resources and confirm that they have been configured correctly. Repeat for each group in the cluster. See <i>Oracle Fail Safe Concepts and Administration Guide for Microsoft Windows</i> for a description of the validation tests performed during a Validate Configuration of the Oracle Resources group operation.



Note:

In Windows, "service or application" or "clustered role" is sometimes referred to as a group.

A.4 Upgrading or Patching a Highly Available Oracle Database

Patching typically involves updating the database from one release to another where only the fourth or fifth digit in the release number changes, for example, 11.1.0.6 to 11.1.0.7. An upgrade is required when the first, second, or third digit in the release number changes, for example 11.1.0 to 11.2.0 or 11.2.0 to 12.1.0.

 **See Also:**

Oracle Database Upgrade Guide for information about upgrading to the new release of Oracle Database

This section contains the following topics:

- [Upgrading a Database Configured for High Availability](#) (page A-5)
- [Patching an Oracle Database Configured for High Availability](#) (page A-6)

A.4.1 Upgrading a Database Configured for High Availability

An upgrade requires installing a new release of the database. You must install the software for the new Oracle Database release before you can perform the upgrade of Oracle Database. The installation procedure for the new Oracle Database 12c Release 1 (12.1) installs the Oracle software into a new Oracle home.

Oracle recommends that you back up your database before performing the upgrade.

Follow the steps in [Table A-2](#) (page A-5) to perform the upgrade. Perform the steps described on one cluster node at a time.

Table A-2 Steps for Upgrading a Database Configured for High Availability

Step	Task	Tool	Comments
1	Check compatibility	Not applicable	Ensure that the release of the database to which you plan to upgrade is compatible with the version of Oracle Fail Safe that you run. See the section on software compatibility in the <i>Oracle Fail Safe Release Notes for Microsoft Windows</i> . If the Oracle Database release and the Oracle Fail Safe software release are not compatible, then see Upgrading the Oracle Fail Safe Software and Installing Patches (page A-2).
2	Install the Oracle Database software on each cluster node.	Oracle Universal Installer	Use the same directory and Oracle home name on each cluster node.
3	Remove each database from its group.	Oracle Fail Safe Manager	Perform the following steps: <ol style="list-style-type: none"> 1. In the tree view, choose Oracle Resources. 2. Select the database from the Oracle Resources in Cluster list. 3. Next, select the Remove action from the Actions menu.
4	Upgrade each database.	Database Migration Assistant (or perform manually)	Instructions for performing the upgrade are included in the database upgrade (or migration) manual for the release to which you are upgrading.

Table A-2 (Cont.) Steps for Upgrading a Database Configured for High Availability

Step	Task	Tool	Comments
5	Validate each standalone database	Oracle Fail Safe Manager	<p>Perform the following steps:</p> <ol style="list-style-type: none"> 1. In the tree view, choose Oracle Resources. 2. Select the database from the Available Oracle Resources list. 3. Next, select the Validate action from the Actions menu.
6	Add each database back to its original group.	Oracle Fail Safe Manager	<p>Perform the following steps:</p> <ol style="list-style-type: none"> 1. In the tree view, choose Oracle Resources. 2. Select the database from the Available Oracle Resources list. 3. Select the Add Resource action from the Actions menu and follow the steps through the Add Resource wizard.

A.4.2 Patching an Oracle Database Configured for High Availability

When you patch a database that has been configured for high availability, it is not necessary to remove the database from the group before applying the patch.

Oracle Database 12c Release 1 (12.1) is a full release that includes all the latest patches and updates for Oracle Database. It is not necessary to check for patch set updates before proceeding with the upgrade process for this release. However, Oracle recommends that you periodically check for patches and patch set updates as a part of database administration.

[Table A-3](#) (page A-6) describes how to patch databases configured for high availability in a two-node cluster. These steps assume that there are two nodes, Node A and Node B, and that Node A is the first node that will be patched. Perform these steps on only one cluster node at a time.

Table A-3 Steps for Patching a Database Configured for High Availability

Step	Task	Tool	Comments
1	Change the failback attributes to Prevent Failback for each group in the cluster.	Microsoft Windows Failover Cluster Manager	<p>Perform the following steps:</p> <ol style="list-style-type: none"> 1. Select a group from the Microsoft Windows Failover Cluster Manager tree view. 2. Select the Properties action listed at the top of the Actions menu before selecting Failover tab. 3. Note the current settings and change the setting to Prevent Failback. 4. Repeat these steps for each group in the cluster. <p>Changing the failback attributes prevents the group from failing back after its preferred node is restarted (later in Step 6).</p>

Table A-3 (Cont.) Steps for Patching a Database Configured for High Availability

Step	Task	Tool	Comments
2	Move all groups on Node A to Node B.	Microsoft Windows Failover Cluster Manager	<p>In the tree view, right-click the group, then select Move. Repeat for each group on Node A.</p> <p>Use Microsoft Windows Failover Cluster Manager to move the Cluster Group if it is on Node A.</p> <p>By moving groups to another node, you can upgrade the current node while users continue to access the group on another node. When moving groups that contain databases with this method, Oracle Fail Safe will perform a checkpoint operation.</p>
3	Exit Oracle Fail Safe Manager and Microsoft Windows Failover Cluster Manager.	Microsoft Windows Failover Cluster Manager	<p>In the File menu, select Exit.</p> <p>(The steps are the same in both Oracle Fail Safe Manager and Microsoft Windows Failover Cluster Manager.)</p>
4	Stop the cluster service on Node A.	Microsoft Control Panel	Open the Microsoft Windows Services window and then stop the Cluster Services service.
5	Stop all running Oracle applications and all remaining Oracle services.	Microsoft Control Panel	Open the Microsoft Windows Services window and then stop all running Oracle services, including the Oracle Fail Safe service and the Distributed Transaction Coordinator Service (if it is running).
6	Install the database patch in the correct home on Node A.	Oracle Universal Installer	Follow the instructions that come with the patch. If you did not stop the Distributed Transaction Coordinator Service in Step 5, then it is likely that a write error for OCIW32.DLL will be returned. If this happens, then return to Step 5, stop the service, and then click RETRY in the Installer window.
7	Adjust the initialization parameter file, if needed.	Editor of choice for pfile, SQL ALTER SYSTEM statement for spfile.	Changes to the initialization parameter file should be made before databases are failed back. See the readme file supplied with the database patch for information about required parameter file changes. If you are maintaining multiple copies of the initialization parameter file (pfile) as you are maintaining them on private disks, then ensure that you update the file that will be used when the database is moved back to the current node. Once the patch scripts are completed, you will change the initialization parameter file back to the original values and restart the database.
8	Move groups back to the selected node.	Oracle Fail Safe Manager	Once the groups are moved back to Node A, they will be restarted and running under the patched version of the database management system. Therefore, run the patch scripts as soon as the groups are moved back. By having changed the initialization parameter file as described in Step 8, you ensure that the database starts with the parameters needed to complete the patch.
9	Restrict user access on each database to be upgraded.	SQL*Plus	<p>As each database comes online on the selected node, restrict user access with the following SQL statement:</p> <pre>ALTER SYSTEM ENABLE RESTRICTED SESSION;</pre> <p>Do this as soon as possible after the database instance starts to prevent users from connecting to the database while the upgrade scripts run. You can also take the listener service for the group offline to prevent users from making Oracle Net connections.</p>

Table A-3 (Cont.) Steps for Patching a Database Configured for High Availability

Step	Task	Tool	Comments
10	Run the upgrade scripts for the patch against each database being patched.	SQL*Plus	See the readme file supplied with the database patch.
11	Repeat steps 4 through 7, replacing Node A in the instructions with Node B.	Various	To save time, you can run the upgrade scripts against the databases on Node A while the patch is being installed on Node B.
12	Validate each group in the cluster.	Oracle Fail Safe Manager	In the tree view, right-click a group name, then select Validate . Repeat for each group in the cluster.
13	End the restricted session on each database.	SQL*Plus	End the restricted session on each database with the following SQL statement: <code>SQL> ALTER SYSTEM DISABLE RESTRICTED SESSION;</code>
14	Validate the cluster.	Oracle Fail Safe Manager	In the tree view, right-click the cluster name, then select Validate .
15	Restore the failback policy on each group.	Microsoft Windows Failover Cluster Manager	Perform the following steps: <ol style="list-style-type: none"> 1. Select a group from the Microsoft Windows Failover Cluster Manager tree view. 2. Select the Properties action listed at the top of the Actions menu before selecting Failover tab, and restore the original settings (as noted in step 1). 3. Repeat for each group on the cluster.
16	Move each group back to its preferred node.	Oracle Fail Safe Manager	In the tree view, right-click a group name, then select Move . Repeat for each node in the cluster. This step balances the workload across the nodes in the cluster.

Refer to the *Oracle Fail Safe Concepts and Administration Guide for Microsoft Windows* for instructions to use the Oracle Database Upgrade Assistant (DBUA) to upgrade a single-instance fail-safe database from one release to another or to move a single-instance Oracle database from one Oracle home to another.



See Also:

Oracle Database Upgrade Guide for information about using DBUA to upgrade the database

A.5 Upgrading Other Oracle Product Software

This section describes upgrading non-database Oracle product software and installing patches that require you to stop the Oracle services being used by Oracle Fail Safe.

See [Upgrading or Patching a Highly Available Oracle Database](#) (page A-4) for the same information on Oracle Database software.

If your cluster is in an active/passive configuration, then you can eliminate a failover if you start the rolling upgrade on the passive cluster node. Once you have finished the upgrade on the passive cluster node, you can skip to Step 4 in [Table A-4](#) (page A-9).

Perform the steps on one cluster node at a time.

Table A-4 Steps Required to Upgrade Other Oracle Product Software

Step	Task	Tool	Comments
1	Change the group failback attributes to the Prevent Failback mode.	Microsoft Windows Failover Cluster Manager	<p>Perform the following steps:</p> <ol style="list-style-type: none"> 1. Select a group from the Microsoft Windows Failover Cluster Manager tree view. 2. Select the Properties action listed at the top of the Actions menu before selecting Failover tab. Note the current settings and change the setting to Prevent Failback. 3. Repeat these steps for each group in the cluster. <p>Changing the failback attributes prevents the group from failing back to the node while it is being restarted or when the cluster service is restarted.</p>
2	Move groups off the node on which you plan to perform the upgrade.	Microsoft Windows Failover Cluster Manager	In the tree view, right-click the group, then select Move . By moving all groups to another node, you can work on the current node. When you use this method to move groups that contain databases, Oracle Fail Safe performs a checkpoint operation.
3	Exit Microsoft Windows Failover Cluster Manager.	Microsoft Windows Failover Cluster Manager	On the current node, in the File menu, select Exit .
4	Stop the cluster service on the node where you want to install the software.	Microsoft Control Panel	Open the Services window and stop the Cluster Service.
5	Stop all running Oracle applications and all remaining Oracle services.	Microsoft Control Panel	Open the Services window and then stop all running Oracle services, including the Oracle Fail Safe service.
6	Install the new Oracle product or component software.	Oracle Universal Installer	Follow the instructions that come with the Oracle product or component.
7	Run the Validate operation on all groups.	Oracle Fail Safe Manager	In the tree view, right-click a group name, then select Validate to check all resources in the group and confirm that they have been configured correctly. Repeat for each group in the cluster.
8	Repeat steps 2 through 8 on the other server node or nodes in the cluster.	Various	No comments.

Table A-4 (Cont.) Steps Required to Upgrade Other Oracle Product Software

Step	Task	Tool	Comments
9	Run the Validate operation.	Oracle Fail Safe Manager	In the tree view, right-click the cluster name, then select Validate . This step verifies that there are no discrepancies in the software installation (such as with the release information) on each node in the cluster.
10	Restore the failback policy attributes on the groups.	Microsoft Windows Failover Cluster Manager	Perform the following steps: <ol style="list-style-type: none"> 1. Select a group from the Microsoft Windows Failover Cluster Manager tree view. 2. Select the Properties action listed at the top of the Actions menu before selecting Failover tab, and restore the original settings (as noted in step 1). 3. Repeat for each group on the cluster.
11	Move each group back to its preferred node.	Oracle Fail Safe Manager	In the tree view, right-click a group name, then select Move . Repeat for each node in the cluster. This step balances the workload across the nodes in the cluster.

B

Silent Mode Installations and Deinstallations

This appendix describes how to perform a silent mode installation or deinstallation of Oracle Fail Safe.

The following topics are discussed in this appendix:

- [Introducing Silent Mode Installations and Deinstallations of Oracle Fail Safe](#) (page B-1)
- [Performing Steps for a Silent Mode Installation or Deinstallation](#) (page B-2)
- [Contents of a Response File](#) (page B-5)

B.1 Introducing Silent Mode Installations and Deinstallations of Oracle Fail Safe

A *silent mode* installation lets you install software by supplying input to Oracle Universal Installer in a file, rather than through Oracle Universal Installer graphical user interface (GUI).

Starting with Oracle Database 12c Release 1 (12.1), the deinstallation tool is integrated with Oracle Universal Installer (OUI). Perform a deinstallation by running the `setup.exe` command with the `-deinstall` and `-home` options from the base directory of the Oracle Database. The deinstallation tool uses the information you provide and the information gathered from the software home to create a response file. Alternatively, you can supply a response file generated previously by the `deinstall` command using the `-checkonly` option, or by editing the response file template.

If you are performing multiple installations of Oracle Fail Safe that are identical or similar to each other, you may want to run Oracle Universal Installer in silent mode to automate the process. You do this by editing a file, called a *response file*, that is supplied with Oracle Fail Safe. Use the `-silent` flag to run the deinstallation tool in noninteractive mode. This option requires a working system that it can access to determine the installation and configuration information and a response file that contains the configuration values for the Oracle home that is being deinstalled or deconfigured.

B.1.1 Selecting a Response File

Three different response file templates are available in the Oracle Fail Safe installation kit. These response files help you to set up Oracle Fail Safe installations in silent mode. Although each template file performs a different type of installation, you can use any one of them to perform a deinstallation.

To perform a silent installation, choose a response file template that corresponds to the desired installation type. The template files are located on the installation kit in the `\stage\Response` directory. Sample response files have also been provided.

The template files, samples, and their corresponding installation types are listed in the following table:

Template Name	Sample Name	Installation Type
oracle.failSAFE.complete.typical.rsp	failSAFE.typical.rsp	Typical installation ¹
oracle.failSAFE.complete.client.rsp	failSAFE.client.rsp	Client Only installation
oracle.failSAFE.complete.custom.rsp	failSAFE.custom.rsp	Custom installation

¹ The Typical installation type installs all of the Oracle Fail Safe components.

 **See Also:**

"Customizing and Creating Response Files" in *Oracle Universal Installer and OPatch User's Guide for Windows and UNIX* for information about response files

B.2 Performing Steps for a Silent Mode Installation or Deinstallation

The following steps describe how to customize the variables in a response file and enable Oracle Universal Installer to use the file for a silent mode installation or deinstallation:

- [Copy the response file template from the installation kit](#) (page B-2)
- [Edit the response file](#) (page B-2)
- [Run Oracle Universal Installer in silent mode](#) (page B-4)
- [Saving a Response File after Installation](#) (page B-5)

B.2.1 Copy the response file template from the installation kit

Make a copy of the original response file templates (located on the installation kit in the `\stage\Response` directory) to use as the basis for your response file. Retain the original files for use as templates.

You might want to make several copies of a response file, each with a different purpose, and specify a different name for each one. For example, you might have a response file named `failsafemanager.rsp` that performs only Oracle Fail Safe Manager installations.

B.2.2 Edit the response file

Edit the response file to specify options for your Oracle Fail Safe installation.

 **Note:**

Before editing the response file, read [Contents of a Response File](#) (page B-5), which contains important information about editing the variables in the response file.

The response file templates contain all of the Oracle Fail Safe installation variables for the corresponding installation type. There are variables that specify the name of the Oracle home where you want to install Oracle Fail Safe, the installation type (Typical, Custom, or Client Only), and the account user name and password for the Oracle Fail Safe service. You can use any one of the response file templates for a deinstallation.

In the response files, each variable is documented using comment lines that begin with a number sign (#). The comments contain information about the type of the variable, whether the variable is displayed in a dialog box, and the function of the variable.

The following sections describe how to perform the different types of installations or a deinstallation. Except where noted, the variables respond in the same way, in each of the response file templates.

 **See Also:**

"Setting Response File Variables From the Command Line" in *Oracle Universal Installer and OPatch User's Guide for Windows and UNIX* for information about specifying the value of a Session or Component variable

For all types of installations, edit the following variables to specify the name of the Oracle home where you want to install Oracle Fail Safe:

`ORACLE_HOME`

`ORACLE_BASE`

`ORACLE_HOME_NAME`

Typical Installation

To install all Oracle Fail Safe components:

1. Use the `oracle.failSAFE.complete.typical.rsp` response file template.
2. Locate the `INSTALL_TYPE` variable in the [oracle.failSAFE.complete_4.2.1.0.0] Component section and make sure the value is `INSTALL_TYPE="Typical"`. (This is the default setting.)
3. Locate the `DomainUserName` and `Pwd` variables in the file. Edit these variables with the account domain, user name, and password needed by Oracle Fail Safe.

Client Only Installation

To install Oracle Fail Safe Manager only:

1. Use the `oracle.failSAFE.complete.client.rsp` response file template.

2. Locate the `INSTALL_TYPE` variable in the `[oracle.failSAFE.complete_4.2.1.0.0]` Component section and ensure that the value is `INSTALL_TYPE="install_type_1"`. (This is the default value.)

Custom Installation

To perform a customized installation of Oracle Fail Safe:

1. Use the `oracle.failSAFE.complete.custom.rsp` response file template.
2. Locate the `INSTALL_TYPE` variable in the `[oracle.failSAFE.complete_4.2.1.0.0]` Component section and make sure the value is `INSTALL_TYPE="Custom"` (this is the default value).
3. If you need to install Oracle Fail Safe server, then locate the `DomainUserName` and `Pwd` variables in the file. Edit these variables with the account domain, user name, and password needed by Oracle Fail Safe.
4. Specify the components to be installed in the `DEPENDENCY_LIST` variable.

Example B-1 Deinstallation

You can deinstall by running the deinstallation tool from the database installation kit by using the `setup.exe` command with the `-deinstall` option.

B.2.3 Run Oracle Universal Installer in silent mode

The Oracle Fail Safe silent installation and deinstallation are case-sensitive. You must enter all command-line syntax exactly as shown in this chapter (for example, the `-responseFile` parameter must be entered using all lowercase characters, except for the `F`). You must enter the file specification by using the case shown in Microsoft Windows Explorer (for example, `C:\Ofs\Silent_Install\OfsProducts.rsp`).

The following command performs an Oracle Fail Safe installation in silent mode by reading all required installation information from the `failsafe.rsp` file:

```
E:\stage\Disk1\install\setup.exe -responseFile C:\failsafe.rsp -silent
```

The following command performs an Oracle Fail Safe deinstallation in silent mode by reading the `deinst_failsafe.rsp` file:

```
E:\stage\Disk1\install\setup.exe -deinstall -home complete path of Oracle home [-silent] [-checkonly]
[-paramfile complete path of input parameter property file] [-params name1=value
name2=value . . .] [-o complete path of directory for saving files] [-help]
```

See Also:

- Appendix C, "Installing and Configuring Oracle Database Using Response Files" in *Oracle Database Installation Guide for Microsoft Windows* for more information about silent installation
- Removing Oracle Database Software" in *Oracle Database Installation Guide for Microsoft Windows* for information about deinstalling in silent mode

B.2.4 Saving a Response File after Installation

You can use Oracle Universal Installer in interactive mode to record a response file, which you can edit and then use to complete silent mode or response file mode installations. This method is useful for custom or software-only installations.

See Also:

"Saving a Response File" in *Oracle Database Installation Guide for Microsoft Windows*

B.3 Contents of a Response File

Edit the variables in your copy of the file to contain the responses you would need to provide during the Oracle Fail Safe installation session. Use the following format when you specify values for variables in the response file:

variable name = *recommendation* : *value*

With Oracle Universal Installer 2.1 and higher, you can specify the value of certain variables when you start Oracle Universal Installer from the command line. Specifically, you can specify session and component variables.

See Also:

- "Setting the Recommendation Value" in *Oracle Universal Installer and OPatch User's Guide for Windows and UNIX* for information about recommendation parameter that can be specified as Forced or Default
- "Setting Response File Variables From the Command Line" in *Oracle Universal Installer and OPatch User's Guide for Windows and UNIX* for information about specifying the value of a Session or Component variable

Note:

Use a response file only to perform silent installations for Oracle Fail Safe. Do not use the response files that are provided with Oracle Fail Safe to install any other products.

Index

A

- Add a cluster, [3-2](#)
- adding
 - a new node to the cluster, [1-4](#)
- administration
 - installing Oracle Fail Safe, [2-1](#)
 - patching software, [A-1](#)
 - starting Oracle Fail Safe Manager, [3-1](#)
 - troubleshooting installation problems, [5-1](#)
 - upgrading software, [A-1](#)
- Administrator privileges, [2-1](#)
 - required for cluster alias, [1-5](#)
- alert files
 - location, [1-5](#)
- application data files
 - installing, [1-5](#)
- applications
 - files on private disks, [1-4](#)
 - files on shared storage devices, [1-4](#)
- authentication
 - for an Oracle Fail Safe installation, [2-1](#)

C

- checklists
 - cluster setup, [1-1](#)
 - installation order, [1-3](#)
 - preinstallation of Oracle Fail Safe software, [2-1](#)
- Client Only installation
 - sample file, [B-2](#)
 - specifying, [2-3](#)
 - template file, [B-2](#)
- clients
 - preparing for upgrades, [A-1](#)
- cluster alias
 - connecting to, [1-5](#)
- cluster disks
 - software and file installations, [1-4](#)
- cluster nodes
 - adding, [1-4](#), [3-2](#)
 - insufficient space, [2-5](#)
 - order of software installations, [1-3](#)
 - setting up, [1-1](#)

- cluster nodes (*continued*)
 - upgrading software on, [A-1](#)
- Custom installation
 - sample file, [B-2](#)
 - template file, [B-2](#)

D

- deinstallations
 - silent mode, [B-1](#)
- Deinstalling
 - deinstall, [4-1](#)
- disk devices
 - insufficient space for installations, [2-5](#)
 - private and cluster installations, [1-4](#)
- domain
 - log on to install Oracle Fail Safe, [2-1](#)
- DomainUserName variable, [B-3](#)

E

- errors
 - See troubleshooting
- executable application files
 - installing, [1-4](#)

F

- failback policy, [A-8](#)
- failover
 - planned, [A-8](#)

H

- Help
 - invoking Oracle Fail Safe tutorial with, [1-4](#)
 - Oracle Fail Safe Manager, [3-3](#)

I

- INSTALL_TYPE variable
 - Custom value, [B-4](#)
 - install_type_1 value, [B-4](#)
 - Typical value, [B-3](#)

installations, [2-2](#)

- alert and trace files, [1-5](#)
- application data, [1-5](#)
- executable application files, [1-4](#)
- log files, [1-5](#)
- Oracle Fail Safe, [2-1](#)
- preparation for, [1-1](#)
- recommended order for software, [1-3](#)
- silent mode, [B-1](#)
- trace files, [1-5](#)
- troubleshooting Windows failover clusters, [5-1](#)
- Web server components, [2-3](#)
 - See also Oracle Installer, Oracle Universal Installer

L

log files

- installing on a cluster, [1-5](#)

M

managing Oracle Fail Safe, [3-2](#)

Microsoft Windows Failover Clusters, [vii](#)

- prerequisites for installing, [1-1](#)
 - See also Microsoft Windows Failover Clusters

N

new nodes

- adding to a cluster, [1-4](#)

O

online help, [3-3](#)

Oracle Database software

- patching, [A-6](#)
- steps for patching, [A-6](#)
- steps for upgrading, [A-5](#)

Oracle Fail Safe software

- patching, [A-2](#)
- requirements for upgrading, [A-2](#)
- upgrading, [A-2](#)

Oracle Universal Installer, [1-1](#)

ORACLE_HOME variable, [B-3](#)

ORACLE_HOME_NAME variable, [B-3](#)

P

patch steps

- Oracle Database software, [A-6](#)

patches

- highly available Oracle Databases, [A-5](#)

patches (*continued*)

- Oracle Database software, [A-6](#)
- Oracle Fail Safe software, [A-2](#)

planned failover, [A-8](#)

- prior to a rolling upgrade, [A-1](#)

prerequisites

- for installing Microsoft Windows Failover Clusters, [1-1](#)
- for installing Oracle Fail Safe, [2-1](#)
- for installing Windows failover clusters, [1-1](#)

private disks

- alert files on, [1-5](#)
- software and file installations, [1-4](#)
- trace files on, [1-5](#)

Pwd variable, [B-3](#)

R

response file template

- for deinstallation, [B-1](#)

response file templates

- for installation, [B-1](#)

response files

- copying, [B-2](#)

rolling upgrades

- See upgrades

S

shared storage devices

- alert and trace files, [1-5](#)

software installations and upgrades

- preparing cluster for, [1-1](#)
- recommended order, [1-3](#)

space requirements

- for installations, [2-5](#)

starting

- Oracle Fail Safe Manager, [3-1](#)

T

templates

- for response files, [B-1](#)

trace files

- location, [1-5](#)

troubleshooting,

- installations, [5-1](#)
 - Oracle Services for Windows failover clusters installations, [5-1](#)
 - Windows failover clusters installations, [5-1](#)

tutorial, [3-3](#)

- invoking, [1-4](#)

Typical installation

- sample file, [B-2](#)
- template file, [B-2](#)

U

- upgrade steps
 - Oracle Database software, [A-5](#)
 - other Oracle product software, [A-9](#), [A-10](#)
- upgrades,
 - highly available Oracle Databases, [A-5](#)
 - Oracle Fail Safe software, [A-2](#)
 - other Oracle products, [A-8](#)
 - performing, [A-1](#)
 - preparing users for, [A-1](#)
 - recommended order of, [A-2](#)
 - rolling, [A-1](#)
 - steps for other Oracle products, [A-8](#)

V

- variables
 - DomainUserName, [B-3](#)
 - INSTALL_TYPE, [B-3](#), [B-4](#)
 - ORACLE_HOME, [B-3](#)
 - ORACLE_HOME_NAME, [B-3](#)
 - Pwd, [B-3](#)

W

- Web server
 - installing components for, [2-3](#)