



Sun Cluster 3.1 Data Service for Siebel Guide

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Preface

Sun Cluster 3.1 Data Service for Siebel Guide explains how to install and configure Sun™ Cluster HA for Siebel on your Sun Cluster nodes.

This document is intended for system administrators with extensive knowledge of Sun software and hardware. Do not use this document as a planning or presales guide. Before reading this document, you should have already determined your system requirements and purchased the appropriate equipment and software.

The instructions in this document assume knowledge of the Solaris™ operating environment and expertise with the volume manager software that is used with Sun Cluster.

UNIX Commands

This document contains information about commands that are specific to installing and configuring Sun Cluster data services. The document does *not* contain comprehensive information about basic UNIX® commands and procedures, such as shutting down the system, booting the system, and configuring devices. Information about basic UNIX commands and procedures is available from the following sources:

- Online documentation for the Solaris software environment
- Solaris operating environment man pages
- Other software documentation that you received with your system

Typographic Conventions

The following table describes the typographic changes used in this book.

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> you have mail.
AaBbCc123	What you type, contrasted with on-screen computer output	<code>machine_name%</code> su Password:
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type rm <i>filename</i> .
<i>AaBbCc123</i>	Book titles, new words, or terms, or words to be emphasized.	Read Chapter 6 in <i>User's Guide</i> . These are called <i>class</i> options. You must be <i>root</i> to do this.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell prompt	<code>machine_name%</code>
C shell superuser prompt	<code>machine_name#</code>
Bourne shell and Korn shell prompt	<code>\$</code>
Bourne shell and Korn shell superuser prompt	<code>#</code>

Related Documentation

Information about related Sun Cluster topics is available in the documentation that is listed in the following table.

Topic	Title	Part Number
Data service administration	<i>Sun Cluster 3.1 Data Service Planning and Administration Guide</i>	817-3305
	Sun Cluster 3.1 10/03 Data Services Collection at http://docs.sun.com/db/coll/573.11	
Concepts	<i>Sun Cluster 3.1 10/03 Concepts Guide</i>	817-0519
Software installation	<i>Sun Cluster 3.1 10/03 Software Installation Guide</i>	817-0518
System administration	<i>Sun Cluster 3.1 10/03 System Administration Guide</i>	817-0516
Hardware administration	<i>Sun Cluster 3.1 Hardware Administration Manual</i>	817-0168
	Sun Cluster 3.x Hardware Administration Collection at http://docs.sun.com/db/coll/1024.1	
Data service development	<i>Sun Cluster 3.1 10/03 Data Services Developer's Guide</i>	817-0520
Error messages	<i>Sun Cluster 3.1 10/03 Error Messages Guide</i>	817-0521
Command and function reference	<i>Sun Cluster 3.1 10/03 Reference Manual</i>	817-0522
Release information	<i>Sun Cluster 3.1 Data Services 10/03 Release Notes</i>	817-3324
	<i>Sun Cluster 3.1 10/03 Release Notes</i>	817-0638
	<i>Sun Cluster 3.x Release Notes Supplement</i>	816-3381

Accessing Sun Documentation Online

The docs.sun.comSM Web site enables you to access Sun technical documentation online. You can browse the docs.sun.com archive or search for a specific book title or subject. The URL is <http://docs.sun.com>.

Help

If you have problems installing or using Sun Cluster, contact your service provider and provide the following information:

- Your name and email address (if available)
- Your company name, address, and phone number
- The model and serial numbers of your systems
- The release number of the operating environment (for example, Solaris 8)
- The release number of Sun Cluster (for example, Sun Cluster 3.0)

Use the following commands to gather information about each node on your system for your service provider.

Command	Function
<code>prtconf -v</code>	Displays the size of the system memory and reports information about peripheral devices
<code>psrinfo -v</code>	Displays information about processors
<code>showrev -p</code>	Reports which patches are installed
<code>prtdiag -v</code>	Displays system diagnostic information
<code>scinstall -pv</code>	Displays Sun Cluster release and package version information

Also have available the contents of the `/var/adm/messages` file.

Installing and Configuring Sun Cluster HA for Siebel

This chapter explains how to install and configure Sun Cluster HA for Siebel.

This chapter contains the following procedures.

- “How to Prepare the Nodes” on page 14
- “How to Install the Siebel Gateway on the Global File System” on page 17
- “How to Install the Siebel Gateway on Local Disks of Physical Hosts” on page 17
- “How to Install the Siebel Server and Siebel Database on the Global File System” on page 19
- “How to Install the Siebel Server and Siebel Database on Local Disks of Physical Hosts” on page 20
- “How to Verify the Siebel Installation and Configuration” on page 21
- “How to Install the Sun Cluster HA for Siebel Packages by Using the Web Start Program” on page 22
- “How to Install the Sun Cluster HA for Siebel Packages by Using the `scinstall` Utility” on page 23
- “How to Register and Configure Sun Cluster HA for Siebel as a Failover Data Service” on page 24
- “How to Register and Configure the Siebel Server” on page 25
- “How to Verify the Sun Cluster HA for Siebel Installation and Configuration” on page 27

Sun Cluster HA for Siebel Overview

Use the information in this section to understand how to make the Siebel application highly available.

Sun Cluster HA for Siebel provides Fault Monitoring and automatic failover for the Siebel application. High availability is provided for the Siebel gateway and Siebel server. With a Siebel implementation, any physical node running the Sun Cluster agent cannot be running the Resonate agent as well. Resonate and Sun Cluster can co-exist within the same Siebel enterprise, but not on the same physical server.

For conceptual information on failover services, see the *Sun Cluster 3.1 10/03 Concepts Guide*.

TABLE 1-1 Protection of Siebel Components

Siebel Component	Protected by
Siebel gateway	Sun Cluster HA for Siebel The resource type is SUNW.sblgtwy.
Siebel server	Sun Cluster HA for Siebel The resource type is SUNW.sblsrvr.

Installing and Configuring Sun Cluster HA for Siebel

Table 1-2 lists the tasks for installing and configuring Sun Cluster HA for Siebel. Perform these tasks in the order that they are listed.

TABLE 1-2 Task Map: Installing and Configuring Sun Cluster HA for Siebel

Task	For Instructions
Plan the Siebel installation	“Planning the Sun Cluster HA for Siebel Installation and Configuration” on page 11
Prepare the nodes and disks	“How to Prepare the Nodes” on page 14

TABLE 1-2 Task Map: Installing and Configuring Sun Cluster HA for Siebel (Continued)

Task	For Instructions
Install and configure Siebel	"How to Install the Siebel Gateway on the Global File System" on page 17 "How to Install the Siebel Gateway on Local Disks of Physical Hosts" on page 17 "How to Install the Siebel Server and Siebel Database on the Global File System" on page 19 "How to Install the Siebel Server and Siebel Database on Local Disks of Physical Hosts" on page 20
Verify Siebel installation and configuration	"How to Verify the Siebel Installation and Configuration" on page 21
Install Sun Cluster HA for Siebel packages	"Installing the Sun Cluster HA for Siebel Packages" on page 22
Register and configure Sun Cluster HA for Siebel as a failover data service	"How to Register and Configure Sun Cluster HA for Siebel as a Failover Data Service" on page 24 "How to Register and Configure the Siebel Server" on page 25
Verify Sun Cluster HA for Siebel installation and configuration	"How to Verify the Sun Cluster HA for Siebel Installation and Configuration" on page 27
Maintain Sun Cluster HA for Siebel	"Maintaining Sun Cluster HA for Siebel" on page 28
Understand Sun Cluster HA for Siebel Fault Monitor	"Understanding Sun Cluster HA for Siebel Fault Monitor" on page 28

Planning the Sun Cluster HA for Siebel Installation and Configuration

This section contains the information you need to plan your Sun Cluster HA for Siebel installation and configuration.

Configuration Restrictions



Caution – Your data service configuration might not be supported if you do not observe these restrictions.

Use the restrictions in this section to plan the installation and configuration of Sun Cluster HA for Siebel. This section provides a list of software and hardware configuration restrictions that apply to Sun Cluster HA for Siebel.

For restrictions that apply to all data services, see the *Sun Cluster 3.1 10/03 Release Notes*.

- High availability is provided for the Siebel gateway and Siebel server.
- With a Siebel implementation, any physical node running the Sun Cluster agent cannot be running the Resonate agent as well. Resonate and Sun Cluster can co-exist within the same Siebel enterprise, but not on the same physical server.
- If you are using Sun Cluster HA for Siebel with Sun Cluster HA for Sun ONE Web Server, you *must* configure Sun Cluster HA for Sun ONE Web Server as a failover data service. Scalable Sun Cluster HA for Sun ONE Web Server *cannot* be used with Sun Cluster HA for Siebel.

Configuration Requirements



Caution – Your data service configuration might not be supported if you do not adhere to these requirements.

Use the requirements in this section to plan the installation and configuration of Sun Cluster HA for Siebel. These requirements apply to Sun Cluster HA for Siebel only. You must meet these requirements before you proceed with your Sun Cluster HA for Siebel installation and configuration.

For requirements that apply to all data services, see “Configuration Guidelines for Sun Cluster Data Services” in *Sun Cluster 3.1 Data Service Planning and Administration Guide*.

- Install each Siebel gateway and each Siebel server in its own Siebel root environment (each instance has its own `siebenv.sh` file). This allows each instance to be independent of others, making failovers and problem diagnosis easier.
- If more than one Siebel server will use the Siebel Filesystem, install the Siebel Filesystem on a global file system. This will ensure that all Siebel server resources have access to the same Filesystem from any node in the cluster.

- Do not use the `Autostart` feature. When prompted to configure this parameter during the Siebel gateway or Siebel server installation, configure `Autostart=NO`.

Standard Data Service Configurations

Use the standard configuration in this section to plan the installation and configuration of Sun Cluster HA for Siebel. Sun Cluster HA for Siebel supports the standard configuration in this section. Sun Cluster HA for Siebel might support additional configurations. However, you must contact your Sun service provider for information on additional configurations.

“Standard Data Service Configurations” on page 13 illustrates a possible configuration using Sun Cluster HA for Siebel. The Siebel server and the Siebel gateway are configured as failover data services.

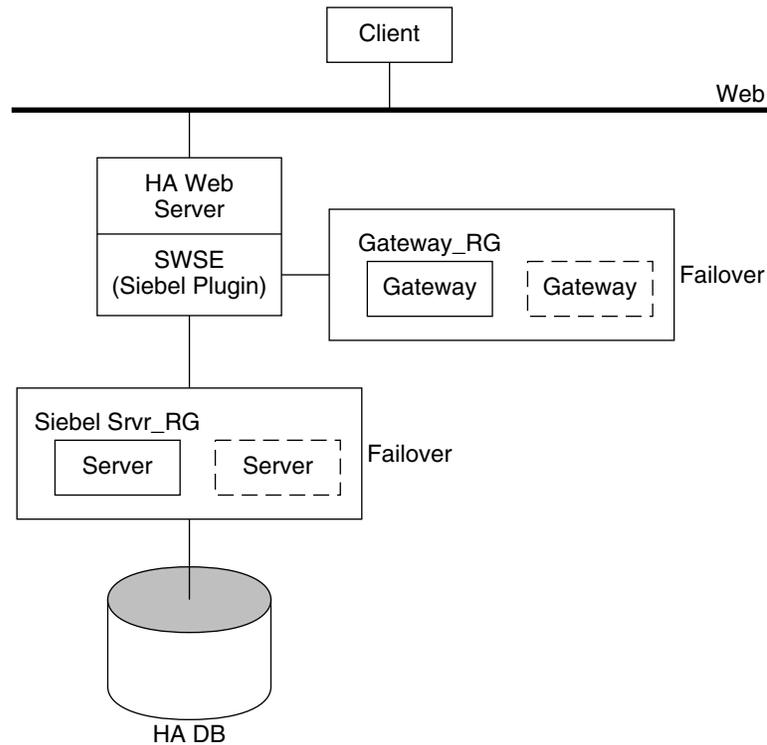


FIGURE 1-1 Standard Siebel Configuration

Configuration Planning Questions

Use the questions in this section to plan the installation and configuration of Sun Cluster HA for Siebel. Insert the answers to these questions into the data service worksheets in “Configuration Worksheets” in *Sun Cluster 3.1 Data Service Planning and Administration Guide*.

- What is the logical hostname for the following resources: Siebel gateway and Siebel server?
- Where will the system configuration files reside?
See “Configuration Guidelines for Sun Cluster Data Services” in *Sun Cluster 3.1 Data Service Planning and Administration Guide* for the advantages and disadvantages of placing the Siebel binaries on the local file system as opposed to the cluster file system.

Preparing the Nodes and Disks

This section contains the procedures you need to prepare the nodes and disks.

▼ How to Prepare the Nodes

Use this procedure to prepare for the installation and configuration of Siebel.

1. **Become super user on all of the nodes.**
2. **Configure the `/etc/nsswitch.conf` file so that Sun Cluster HA for Siebel starts and stops correctly if a switchover or a failover occurs.**

On each node that can master the logical host that runs Sun Cluster HA for Siebel, include one of the following entries for `group` in the `/etc/nsswitch.conf` file.

```
group:  
group: files [NOTFOUND=return] nis  
group: files [NOTFOUND=return] nisplus
```

Sun Cluster HA for Siebel uses the `su - user` command to start, stop, and probe the service.

The network information name service might become unavailable when a cluster node's public network fails. Adding one of the preceding entries for `group` ensures that the `su (1M)` command does not refer to the NIS/NIS+ name services if the network information name service is unavailable.

3. **Prevent the Siebel gateway probe from timing out while trying to open a file on `/home`.**

When the node running the Siebel gateway has a path beginning with /home, which depends on network resources such as NFS and NIS, and the public network fails, the Siebel gateway probe times out and causes the Siebel gateway resource to go offline. Without the public network, Siebel gateway probe hangs while trying to open a file on /home, causing the probe to time out.

To prevent the Siebel gateway probe from timing out while trying to open a file on /home, configure all nodes of the cluster that can be the Siebel gateway as follows:

- a. **Include the following entries that are set to files in the /etc/nsswitch.conf file:**

```
passwd: files
groups: files
publickey: files
project: files
```

- b. **Eliminate all NFS or NIS dependencies for any path starting with /home.**
You may either have a locally mounted /home path or rename the /home mount point to /export/home or another name which does not start with /home.
 - c. **Comment out the line containing +auto_master in the /etc/auto_master file, and change any /home entries to auto_home.**
 - d. **Comment out the line containing +auto_home in the /etc/auto_home file.**
4. **Prepare the Siebel administrator's home directory.**
 5. **On each node, create an entry for the Siebel administrator group in the /etc/group file, and add potential users to the group.**

Tip – In the following example, the Siebel administrator group is named `siebel`.

Ensure that group IDs are the same on all of the nodes that run Sun Cluster HA for Siebel.

```
# siebel:*:521:siebel
```

You can create group entries in a network name service. If you do so, also add your entries to the local /etc/inet/hosts file to eliminate dependency on the network name service.

6. **On each node, create an entry for the Siebel administrator.**

Tip – In the following example, the Siebel administrator is named `siebel`.

The following command updates the `/etc/passwd` and `/etc/shadow` files with an entry for the Siebel administrator.

```
# useradd -u 121 -g siebel -s /bin/ksh -d /Siebel-home siebel
```

Ensure that the Siebel user entry is the same on all of the nodes that run Sun Cluster HA for Siebel.

7. Ensure that the Siebel administrator's default environment contains settings for accessing the Siebel database. For example, if the Siebel database is on Oracle, the following entries may be included in the `.profile` file.

```
export ORACLE_HOME=/global/oracle/OraHome
export PATH=$PATH:$ORACLE_HOME/bin
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/usr/lib

export TNS_ADMIN=$ORACLE_HOME/network/admin
export ORACLE_SID=siebedb
```

8. Create a failover resource group to hold the logical hostname and the Siebel gateway resources.

```
# scrgadm -a -g failover-rg [-h nodelist]
```

9. Add the logical hostname resource.

Ensure that logical hostname matches the value of the `SIEBEL_GATEWAY` environment variable that is set in the `siebenv.sh` file of the Siebel gateway, and also the Siebel server installations.

```
# scrgadm -a -L -g failover-rg -l logical_hostname
```

10. Bring the resource group online.

```
# scswitch -Z -g failover-rg
```

11. Repeat Step 8 through Step 10 for each logical hostname that is required.

Installing and Configuring the Siebel Application

This section contains the procedures you need to install and configure the Siebel application. To install the Siebel application, you must install the Siebel gateway, the Siebel server, and the Siebel database.

To install the Siebel application, you need the following information about your configuration.

- The gateway and server root directories (installation locations).

- The logical hostnames for the Siebel gateway and Siebel server (one logical hostname per Siebel server instance, if they are to failover independently). You must configure these addresses and they must be online.

To install the Siebel application, see the following sections.

- “Installing the Siebel Gateway” on page 17
- “Installing the Siebel Server and Siebel Database” on page 18

Installing the Siebel Gateway

You can install the Siebel gateway either on the global file system or on local disks of physical hosts. To install the Siebel gateway, see one of the following procedures.

- “How to Install the Siebel Gateway on the Global File System” on page 17
- “How to Install the Siebel Gateway on Local Disks of Physical Hosts” on page 17

▼ How to Install the Siebel Gateway on the Global File System

Use this procedure to install the Siebel gateway on the global file system. To install the Siebel gateway on local disks of physical hosts, see “How to Install the Siebel Gateway on Local Disks of Physical Hosts” on page 17.

To install the Siebel gateway on the global file system, install the Siebel software only once from any node of the cluster.

- 1. Install the Siebel gateway by following the instructions in the Siebel installation documentation and the latest release notes.**
Do not use the `Autostart` feature. When prompted, configure `Autostart=NO`.
- 2. Verify that the `siebenv.sh` file is under `gateway_root`, and is owned by the user who will launch the Siebel gateway.**
- 3. Change the `SIEBEL_GATEWAY` to the logical hostname that is selected for the Siebel gateway in `siebenv.sh` and `siebenv.csh` files under `gateway_root`.**
- 4. Stop and restart the Siebel gateway to ensure that the gateway is using the logical hostname.**

▼ How to Install the Siebel Gateway on Local Disks of Physical Hosts

Use this procedure to install the Siebel gateway on local disks of physical hosts. To install the Siebel gateway on the global file system, see “How to Install the Siebel Gateway on the Global File System” on page 17.

Note – To install the Siebel gateway on local disks of physical hosts, the directory `gateway_root/sys` must be highly available (it must be installed on a global file system).

1. Install the Siebel gateway on any one node of the cluster by following the instructions in the Siebel installation documentation and the latest release notes. Do not use the Autostart feature. When prompted, configure `Autostart=NO`.
2. Verify that the `siebenv.sh` file is under `gateway_root`, and is owned by the user who will launch the Siebel gateway.
3. Change the `SIEBEL_GATEWAY` to the logical hostname that is selected for the gateway in `siebenv.sh` and `siebenv.csh` files under `gateway_root`.
4. Stop and restart the Siebel gateway to ensure that the gateway is using the logical hostname.
5. Move `gateway_root/sys` to `/global/siebel/sys` and create a link to the global file system from the local file system.

```
# mv gateway_root/sys /global/siebel/sys
# ln -s /global/siebel/sys gateway_root/sys
```

6. Replicate the installation on all remaining nodes of the cluster.
7. Verify that the ownerships and permissions of the files and directories in the Siebel gateway installation are identical on all nodes of the cluster.
8. For each node on the cluster, change the ownership of the link to the appropriate Siebel user.

```
# chown -h siebel:siebel gateway_root/sys
```

9. As Siebel user, verify that the gateway is properly installed and configured. Ensure the command below returns a version string.

```
# srvredit -q -g SIEBEL_GATEWAY -e none -z -c '$Gateway.VersionString'
```

Installing the Siebel Server and Siebel Database

You can install the Siebel server either on the global file system or on local disks of physical hosts. To install the Siebel server and configure the Siebel server and Siebel database, see one of the following procedures

- “How to Install the Siebel Server and Siebel Database on the Global File System” on page 19

- “How to Install the Siebel Server and Siebel Database on Local Disks of Physical Hosts” on page 20

▼ How to Install the Siebel Server and Siebel Database on the Global File System

Use this procedure to install the Siebel server and configure the Siebel server and Siebel database on the global file system. To install the Siebel server on local disks of physical hosts, see “How to Install the Siebel Server and Siebel Database on Local Disks of Physical Hosts” on page 20.

To install the Siebel server on the global file system, install the software only once from any node of the cluster.

1. **Install the Siebel server by following the instructions in the Siebel installation documentation and the latest release notes.**
Do not use the Autostart feature. When prompted, configure **Autostart=No**. When prompted to enter the gateway hostname, enter the logical hostname for the Siebel gateway.
2. **Verify that the `siebenv.sh` file is under `server_root` and is owned by the user who will launch the Siebel server.**
3. **Ensure that a database such as HA Oracle is configured for Siebel and that the database is online.**
4. **Use the Siebel documentation to configure and populate the Siebel database.**
When creating the ODBC data source (using `dbsrvr_config.ksh` script), ensure that the name is `siebsrvr_siebel_enterprise`.
5. **Create a database user (for example, `dbuser/dbpassword`) with permission to connect to the Siebel database for use by the Sun Cluster HA for Siebel Fault Monitor.**
6. **Log in as the user who will launch the Siebel server and manually start the Siebel server.**
7. **Run `srvrmgr` and change the `HOST` parameter to the logical hostname for the Siebel server.**

```
# srvrmgr:hasiebel> change param Host=logical-hostname for server hasiebel
```

Note – This change will take effect when the Siebel server is started under Sun Cluster control.

▼ How to Install the Siebel Server and Siebel Database on Local Disks of Physical Hosts

Use this procedure to install the Siebel server and configure the Siebel server and Siebel database on local disks of physical hosts. To install the Siebel server on the global file system, see "How to Install the Siebel Server and Siebel Database on the Global File System" on page 19.

To install the Siebel server on the local disks of the physical hosts, install the software on any one node of the cluster.

- 1. Install the Siebel server by following the instructions in the Siebel installation documentation and the latest release notes.**
Do not use the `Autostart` feature. When prompted, configure `Autostart=No`.
When prompted to enter the gateway hostname, enter the logical hostname for the Siebel gateway.
- 2. Verify that the `siebenv.sh` file is under `server_root` and is owned by the user who will launch the Siebel server.**
- 3. Ensure that a database such as HA Oracle is configured for Siebel and that the database is online.**
- 4. Use the Siebel documentation to configure and populate the Siebel database.**
When creating the ODBC data source (using `dbsrvr_config.ksh` script), ensure that the name is `siebsrvr_siebel_enterprise`.
- 5. Create a database user (for example, `dbuser/dbpassword`) with permission to connect to the Siebel database for use by the Sun Cluster HA for Siebel Fault Monitor.**
- 6. Log in as the user who will launch the Siebel server and manually start the Siebel server.**
- 7. Run `srvrmgr` and change the `HOST` parameter to the logical hostname for the Siebel server.**

```
srvrmgr:hasiebel> change param Host=logical-hostname for server hasiebel
```

Note – This change will take effect when the Siebel server is started under Sun Cluster control.

- 8. Replicate the installation on all of the remaining nodes of the cluster.**

```
# rdist -c server_root hostname:server_root
```

9. Verify that the ownerships and permissions of files and directories in the Siebel gateway installation are identical on all nodes of the cluster.

Verifying the Siebel Installation and Configuration

This section contains the procedure you need to verify the Siebel installation and configuration.

▼ How to Verify the Siebel Installation and Configuration

Use this procedure to verify the Siebel gateway, Siebel server, and Siebel database installation and configuration. This procedure does not verify that your application is highly available because you have not installed your data service yet.

1. Verify that the logical hostname is online on the node on which the resource(s) will be brought online.
2. Manually start the Siebel gateway as the user who will launch the Siebel gateway.
3. Manually start the Siebel server as the user who will launch the Siebel server.
4. Use `odbcsql` to verify connectivity to the Siebel database.

```
# odbcsql /s siebsrvr_siebel_enterprise /u dbuser /p dbpassword
```
5. Run `list servers` sub-command under `srvrmgr`.
The `HOST_NAME` parameter for the Siebel server will show the physical hostname. After the Siebel server is configured to be highly available, the `HOST_NAME` should show the logical hostname for the Siebel server.
6. Test various Siebel user sessions, such as sales and call center using a Siebel dedicated client and supported thin client (browser).
7. Manually stop the Siebel server as the user who started the Siebel server.
8. Manually stop the Siebel gateway as the user who started the Siebel gateway.

Installing the Sun Cluster HA for Siebel Packages

If you did not install the Sun Cluster HA for Siebel packages during your initial Sun Cluster installation, perform this procedure to install the packages. Perform this procedure on each cluster node where you are installing the Sun Cluster HA for Siebel packages. To complete this procedure, you need the Sun Cluster Agents CD-ROM.

If you are installing more than one data service simultaneously, perform the procedure in “Installing the Software” in *Sun Cluster 3.1 10/03 Software Installation Guide*.

Install the Sun Cluster HA for Siebel packages by using one of the following installation tools:

- The Web Start program
- The `scinstall` utility

Note – The Web Start program is *not* available in releases earlier than Sun Cluster 3.1 Data Services 10/03.

▼ How to Install the Sun Cluster HA for Siebel Packages by Using the Web Start Program

You can run the Web Start program with a command-line interface (CLI) or with a graphical user interface (GUI). The content and sequence of instructions in the CLI and the GUI are similar. For more information about the Web Start program, see the `installer(1M)` man page.

1. **On the cluster node where you are installing the Sun Cluster HA for Siebel packages, become superuser.**
2. **(Optional) If you intend to run the Web Start program with a GUI, ensure that your `DISPLAY` environment variable is set.**
3. **Load the Sun Cluster Agents CD-ROM into the CD-ROM drive.**
If the Volume Management daemon `vold(1M)` is running and configured to manage CD-ROM devices, it automatically mounts the CD-ROM on the `/cdrom/scdataservices_3_1_vb` directory.
4. **Change to the Sun Cluster HA for Siebel component directory of the CD-ROM.**
The Web Start program for the Sun Cluster HA for Siebel data service resides in this directory.

```
# cd /cdrom/scdataservices_3_1_vb/\
components/SunCluster_HA_Siebel_3.1/
```

5. Start the Web Start program.

```
# ./installer
```

6. When you are prompted, select the type of installation.

- To install only the C locale, select Typical.
- To install other locales, select Custom.

7. Follow instructions on the screen to install the Sun Cluster HA for Siebel packages on the node.

After the installation is finished, the Web Start program provides an installation summary. This summary enables you to view logs that the Web Start program created during the installation. These logs are located in the `/var/sadm/install/logs` directory.

8. Exit the Web Start program.

9. Unload the Sun Cluster Agents CD-ROM from the CD-ROM drive.

- a. To ensure that the CD-ROM is not being used, change to a directory that does *not* reside on the CD-ROM.
- b. Eject the CD-ROM.

```
# eject cdrom
```

▼ How to Install the Sun Cluster HA for Siebel Packages by Using the `scinstall` Utility

1. Load the Sun Cluster Agents CD-ROM into the CD-ROM drive.

2. Run the `scinstall` utility with no options.

This step starts the `scinstall` utility in interactive mode.

3. Choose the menu option, Add Support for New Data Service to This Cluster Node.

The `scinstall` utility prompts you for additional information.

4. Provide the path to the Sun Cluster Agents CD-ROM.

The utility refers to the CD-ROM as the “data services cd.”

5. Specify the data service to install.

The `scinstall` utility lists the data service that you selected and asks you to confirm your choice.

6. Exit the `scinstall` utility.
7. Unload the CD-ROM from the drive.

Registering and Configuring Sun Cluster HA for Siebel

This section contains the procedures you need to configure Sun Cluster HA for Siebel.

Sun Cluster HA for Siebel Extension Properties

Use the extension properties in Table 1–3 and Table 1–4 to create your resources. Use the command `scrgadm -x parameter-value` to configure extension properties when you create your resource. Use the procedure in “Administering Data Service Resources” in *Sun Cluster 3.1 Data Service Planning and Administration Guide* to configure the extension properties if you have already created your resources. You can update some extension properties dynamically. You can update others, however, only when you create or disable a resource. The Tunable entries indicate when you can update each property. See Appendix A for details on all Sun Cluster properties.

▼ How to Register and Configure Sun Cluster HA for Siebel as a Failover Data Service

Use this procedure to configure Sun Cluster HA for Siebel as a failover data service. This procedure assumes that you installed the data service packages during your initial Sun Cluster installation. If you did not install the Sun Cluster HA for Siebel packages as part of your initial Sun Cluster installation, see “How to Install the Sun Cluster HA for Siebel Packages by Using the `scinstall` Utility” on page 23 to install the data service packages. Otherwise, use this procedure to configure the Sun Cluster HA for Siebel.

1. **Become superuser on one of the nodes in the cluster that hosts the application server.**
2. **Add the resource type for the Siebel gateway.**

```
# scrgadm -a -t SUNW.sblgtwy
```
3. **Create a failover resource group to hold the logical hostname and the Siebel gateway resources.**

Note – If you have already created a resource group, added the logical hostname resource, and brought the resource group online when you completed the “How to Prepare the Nodes” on page 14 procedure, you may skip to Step 6.

```
# scrgadm -a -g gateway-rg [-h nodelist]
```

4. Add the logical hostname resource.

Ensure that logical hostname matches the value of the SIEBEL_GATEWAY environment variable that is set in the `siebenv.sh` file of the Siebel gateway, and also the Siebel server installations.

```
# scrgadm -a -L -g gateway-rg -l logical_hostname
```

5. Bring the resource group online.

```
# scswitch -Z -g gateway-rg
```

6. Verify that `siebenv.sh` file exists under `gateway_root`.

The owner of this file launches the Siebel gateway server when the Siebel gateway resource is brought online.

7. Create the Siebel gateway resource.

```
# scrgadm -a -j sblgtwy-rs -g gateway-rg \  
-t SUNW.sblgtwy \  
-x Confdir_list=gateway_root
```

8. Enable the Siebel gateway resource.

```
# scswitch -e -j sblgtwy-rs
```

9. Verify that the Siebel resource group and the Siebel gateway resource are online by using `scstat -g` and `ps -ef`.

▼ How to Register and Configure the Siebel Server

1. Add the resource type for the Siebel server.

```
# scrgadm -a -t SUNW.sblsrvr
```

2. Create the failover resource group to hold the logical hostname and the Siebel server resources.

Note – If you have already created a resource group, added the logical hostname resource, and brought the resource group online when you completed the “How to Prepare the Nodes” on page 14 procedure, you may skip to Step 5.

```
# scrgadm -a -g siebel-rg [-h nodelist]
```

3. Add the logical hostname resource.

This logical hostname should match the value of the `HOST_NAME` parameter for the Siebel server.

```
# scrgadm -a -L -g siebel-rg -l logical-hostname
```

4. Bring the resource group online.

The following command brings the resource group online on the preferred node.

```
# scswitch -Z -g siebel-rg
```

5. Verify that the `siebenv.sh` file is located under `server_root`.

6. Create a file called `scsblconfig` under `server_root`, owned by the owner of `siebenv.sh`.

If the Siebel server is installed locally, create the file `scsblconfig` under `server_root` on all nodes.

For security reasons, make this file readable only by the owner.

```
# cd server_root
# touch scsblconfig
# chown siebel:siebel scsblconfig
# chmod 400 scsblconfig
```

7. Select a database user (for example, `dbuser/dbuserpassword`) with permission to connect to the database for use by the Sun Cluster HA for Siebel Fault Monitor.

8. Select another Siebel user (for example, `sadmin/sadminpassword`) with permission to run the `compgrps` command in `svrmgr`.

9. Add the following entries into the `sbsblconfig` file.

```
export DBUSR=dbuser
export DBPWD=dbuserpassword
export SADMUSR=sadmin
export SADMPWD=sadminpassword
```

10. Create the Siebel server resource.

```
# scrgadm -a -j sblsrvr-rs -g siebel-rg \
-t SUNW.sblsrvr \
-x Confdir_list=server_root \
-x siebel_enterprise=siebel enterprise name \
```

```
-x siebel_server=siebel server name
```



Caution – If you enter incorrect values for `siebel_enterprise` or `siebel_server`, you may not see any errors during validation. However, resource startup will fail. If `siebel_enterprise` is incorrect, `validate` method will not be able to verify database connectivity, which will result in a warning only.

11. Enable the Siebel server resource.

```
# scswitch -e -j sblsrvr-rs
```

12. Verify that the resource group and the Siebel server resource are online, by using `scstat -g` and `ps -ef` commands.

Verifying the Sun Cluster HA for Siebel Installation and Configuration

This section contains the procedure you need to verify that you installed and configured your data service correctly.

▼ How to Verify the Sun Cluster HA for Siebel Installation and Configuration

Use this procedure to verify that you installed and configured Sun Cluster HA for Siebel correctly.

1. **Bring the Siebel database, Siebel gateway, and Siebel server resources online on the cluster.**
2. **Log on to the node on which the Siebel server is online.**
3. **Confirm that the Fault Monitor functionality is working correctly.**
4. **Start `svrmgr` and run the subcommand `list compgrps`.**
5. **Verify that the required Siebel components are enabled.**
6. **Connect to Siebel using a supported thin-client (browser) and run a session.**
7. **As user `root`, switch the Siebel server resource group to another node.**

```
# scswitch -z -g siebel-rg -h node2
```

8. Repeat Step 4, Step 5, and Step 6 for each potential node on which the Siebel server resource can run.

9. As root user, switch the Siebel gateway resource group to another node.

```
# scswitch -z -g gateway-rg -h node2
```

Maintaining Sun Cluster HA for Siebel

This section contains guidelines for maintaining Sun Cluster HA for Siebel.

- To maintain a Siebel resource, you must disable the Siebel resource(s) or bring the Siebel resource group(s) to an unmanaged state using one of the following commands.
 - `scswitch -n -j resource`
 - `scswitch -u -g resource_group`
- To start a Siebel resource, disable the resource, but keep the logical hostname online, before starting the Siebel resource manually.



Caution – If the Siebel server is started manually without disabling the resource or bringing the resource group to an unmanaged state, the Siebel resource start method might “reset” the service on the node where the resource is attempting to be started under Sun Cluster control. This may lead to unexpected results.

Understanding Sun Cluster HA for Siebel Fault Monitor

Use the information in this section to understand Sun Cluster HA for Siebel Fault Monitors.

This section provides the following information.

- Description of Sun Cluster HA for Siebel Fault Monitor’s probing algorithm or functionality.
- Conditions, messages, and recovery actions associated with unsuccessful probing.

- Conditions and messages associated with successful probing.

Sun Cluster HA for Siebel supplies two Fault Monitors, the Gateway Fault Monitor and the Server Fault Monitor. Each of these Fault Monitors is described in the following sections.

Extension Properties

Sun Cluster HA for Siebel Fault Monitor uses the following extension properties. You might be able to tune these extension properties. See “Sun Cluster HA for Siebel Extension Properties” on page 24 to review or set extension properties.

TABLE 1-3 Sun Cluster HA for Siebel (SUNW.sblgtwy) Extension Properties

Name/Data Type	Description
Confdir_list (stringarray)	The Siebel gateway root directory location Default: None Tunable: At creation

TABLE 1-4 Sun Cluster HA for Siebel SUNW.sblsrvr Extension Properties

Name/Data Type	Description
Confdir_list (stringarray)	The Siebel server root directory location Default: None Tunable: At creation
siebel_enterprise (string)	The Siebel Enterprise name Default: None Tunable: At creation
siebel_serves (string)	The Siebel server name Default: None Tunable: At creation

Probing Algorithm and Functionality

Siebel Gateway Fault Monitor

The Siebel Gateway Fault Monitor monitors the Siebel gateway process. If the Siebel gateway process dies, the Fault Monitor restarts it, or fails it over to another node.

Siebel Server Fault Monitor

The Siebel Server Fault Monitor does the following every `thorough_probe_interval` seconds.

Monitors the Siebel database

If the Siebel database fails, the status of the Siebel server is marked as DEGRADED. When the Siebel database restarts again, the Siebel server resource probe tries to verify that the Siebel server is functioning. When this test fails, the Siebel server is restarted or failed over to another node.

The Fault Monitor also starts the Siebel server when the Siebel database that was not available when the START method ran then becomes available.

Monitors Siebel gateway

If the Siebel gateway fails, the status of the Siebel server is marked as DEGRADED. When the Siebel gateway restarts again, the Siebel server resource probe tries to verify that the Siebel server is functioning. When this test fails, the Siebel server is restarted or failed over to another node.

The Fault Monitor also starts the Siebel server when the Siebel gateway that was not available when the START method ran then becomes available.

Monitors the Siebel server and all its enabled components

If the Siebel server fails, it is restarted or failed over. If any of the Siebel components fail, a partial (10%) failure is reported to the framework. Currently, component failures may be detected only in English language installations of Siebel.

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