Siebel Installation Guide for UNIX

Siebel Innovation Pack 2017
July 2017
# Siebel Installation Guide for UNIX

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Index
Siebel Installation Guide for UNIX describes the installation and initial configuration of Oracle’s Siebel Business Applications. The installation and configuration tasks are covered for Siebel Enterprise Server software, Siebel Application Interface, Siebel Mobile Web Clients, Siebel Tools, and other installable Siebel modules.


Table 1 lists the changes in this revision of the documentation to support Siebel Innovation Pack 2017. The new features listed in this table are available only if you install and deploy Innovation Pack 2017.

**NOTE:** Siebel Innovation Pack 2017 is a continuation of the Siebel 8.1/8.2 release.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Installation-Related Changes for Siebel Innovation Pack 2016” (removed)</td>
<td>Removed topic. Removed this topic about the previous release.</td>
</tr>
</tbody>
</table>
Chapter 3, “Installing Siebel Business Applications Server Modules”

Modified topics. In the current release, some installable modules have changed, and the Siebel Enterprise Server installer has been updated to accommodate them.

The Siebel Web Server Extension (SWSE) and its separate installer are no longer provided. This module has been replaced by a new module, Siebel Application Interface, which is installed by the Siebel Enterprise Server installer and does not require an existing Web server.

For migration installations, you must install Siebel Application Interface before the other modules, and you must configure it after doing all migration installations. The additional tasks for migration installations has been updated for the current release.

The Siebel Gateway Name Server has been replaced by a new module called Siebel Gateway.

You can use the Siebel Enterprise Server installer to install additional new modules. The installer now prompts for authentication and port number information as part of accommodating Siebel CRM product changes intended to facilitate deployment on the cloud.

Chapter 4, “Configuring Siebel Business Applications Server Modules”

“Running the Siebel Management Console” on page 67 (new)

“Starting a Siebel Configuration Wizard” (removed)

“More Information About Using the Siebel Configuration Wizards” (removed)

Modified and removed topics. In the current release, the Web-based Siebel Management Console, which is installed with Siebel Application Interface, has replaced most of the Siebel Configuration Wizards previously provided, except for the Database Configuration Wizard. Use the Siebel Management Console to create configuration profiles and deploy them in your physical environment.

Configuration information is stored in the Siebel Gateway registry instead of in the siebns.dat file.

“Starting the Siebel Database Configuration Wizard” on page 134

New topic. Moved some Siebel Configuration Wizard content from the previous chapter here, applicable to the Database Configuration Wizard.

“Installing the Siebel Database” on page 136

Modified topic. Installing a new database using the Database Configuration Wizard now creates an ODBC data source name that allows you to use database authentication when you run Siebel Management Console.
Table 1. What’s New in Siebel Installation Guide for UNIX, Siebel Innovation Pack 2017

<table>
<thead>
<tr>
<th>Topic</th>
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</tr>
</thead>
<tbody>
<tr>
<td>“Additional Tasks for the Siebel Web Server Extension and the Web</td>
<td>Removed topic. Most of this information applied to SWSE and Web servers, and is not relevant to Siebel Application Interface for the current release. The topics about using Siebel Management Console to configure Siebel Application Interface include information about some settings formerly noted in this topic for SWSE.</td>
</tr>
<tr>
<td>Server” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Process of Configuring Load Balancing for Siebel Business</td>
<td>Removed topics. Load balancing as configured in previous releases no longer applies. Siebel native load balancing is supported in the current release, and works differently than in previous releases.</td>
</tr>
<tr>
<td>Applications” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Generating the Load Balancing Configuration File (lbconfig.txt)”</td>
<td></td>
</tr>
<tr>
<td>(removed)</td>
<td></td>
</tr>
<tr>
<td>“Planning Siebel Server Load Balancing” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Siebel Web Server Extension Requirements for Siebel Load Balancing”</td>
<td></td>
</tr>
<tr>
<td>(removed)</td>
<td></td>
</tr>
<tr>
<td>“Installing and Using Oracle Database XE for the Local or Sample</td>
<td>Modified topic. In the current release, the local database and sample database are provided in the 64-bit versions only; the 32-bit versions are no longer provided.</td>
</tr>
<tr>
<td>Database” on page 195</td>
<td></td>
</tr>
<tr>
<td>“Siebel Web Client Shortcuts and Startup Options” on page 212</td>
<td>Modified topic. In the current release, demo shortcuts are no longer created with installations of the sample database for Siebel Mobile Web Client.</td>
</tr>
<tr>
<td>“About the Environment Verification Tool” (removed)</td>
<td>Removed topics. The Environment Verification Tool is obsolete in the current release.</td>
</tr>
<tr>
<td>“Using the Environment Verification Tool” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Cloning a Siebel Installation” (removed)</td>
<td>Removed chapter. The cloning utility described in previous versions of this guide is no longer supported. This utility has been superseded by the Siebel Management Console technique of creating and deploying configuration profiles for your installed Siebel modules. You can use the new method to achieve results similar to those of the cloning operations previously described.</td>
</tr>
<tr>
<td>“Process of Removing Configuration Data” on page 261</td>
<td>Modified topic. As of Siebel Innovation Pack 2017, you use the Siebel Management Console to remove configuration data of the types that you would formerly remove using the Siebel Configuration Wizards.</td>
</tr>
<tr>
<td>“About Oracle Configuration Manager” (removed)</td>
<td>Removed topic. As of Siebel Innovation Pack 2017, Oracle Configuration Manager is no longer installed with Siebel CRM.</td>
</tr>
</tbody>
</table>
Table 2 lists the changes in this revision of the documentation to support Siebel Innovation Pack 2016. The new features listed in this table are available only if you install and deploy Innovation Pack 2016.

NOTE: Siebel Innovation Pack 2016 is a continuation of the Siebel 8.1/8.2 release.

Table 2. What’s New in Siebel Installation Guide for UNIX, Siebel Innovation Pack 2017

<table>
<thead>
<tr>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>“Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318</td>
<td>Modified topic. Anonymous users are now configured using Siebel Management Console.</td>
</tr>
<tr>
<td>“Installing the Web Server” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
<tr>
<td>“Support for Heterogeneous Environments” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
<tr>
<td>“Requirements for the Installation User for the Siebel Web Server Extension” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
<tr>
<td>“Requirements for Stopping and Starting the Web Server” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
<tr>
<td>“Requirements for Binary Coexistence of the Siebel Web Server Extension” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
<tr>
<td>“Requirements for Installing Oracle LDAP Client” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
<tr>
<td>“Uninstalling Oracle LDAP Client” (removed)</td>
<td>Removed topics. Removed topics that were mostly applicable to SWSE and Web servers, and are not relevant to Siebel Application Interface. Other information in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314 and elsewhere has been adapted from the SWSE context to the Siebel Application Interface context.</td>
</tr>
</tbody>
</table>


Table 2 lists the changes in this revision of the documentation to support Siebel Innovation Pack 2016. The new features listed in this table are available only if you install and deploy Innovation Pack 2016.

NOTE: Siebel Innovation Pack 2016 is a continuation of the Siebel 8.1/8.2 release.

Table 2. What’s New in Siebel Installation Guide for UNIX, Siebel Innovation Pack 2016, Rev. A

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Importing a Siebel Repository Manually into the Siebel Database” on page 145</td>
<td>Modified topic. Updated the information about how commits are performed when you import repository data.</td>
</tr>
<tr>
<td>“Configuring Support for CalDAV or CardDAV Publishing” on page 176</td>
<td>Renamed and modified topic. Enhanced the information about configuring support for CalDAV and CardDAV publishing.</td>
</tr>
<tr>
<td>“Creating the Siebel File System” on page 298</td>
<td>Modified topic. Removed the information about encryption for the Siebel File System, which is not supported.</td>
</tr>
</tbody>
</table>

Table 3 lists the changes in this revision of the documentation to support Siebel Innovation Pack 2016. The new features listed in this table are available only if you install and deploy Innovation Pack 2016.

**NOTE:** Siebel Innovation Pack 2016 is a continuation of the Siebel 8.1/8.2 release.

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<tr>
<th>Topic</th>
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<tbody>
<tr>
<td>“Configuring the Siebel Server” on page 89</td>
<td>Removed and modified topics. Siebel Business Applications use Siebel Open UI. As of Siebel Innovation Pack 2016, the high interactivity and standard interactivity clients are no longer supported. After you migrate to the current release, applications previously deployed using high interactivity now automatically use Siebel Open UI. It is no longer necessary or possible to explicitly enable Siebel Open UI. Server parameters that applied only to high interactivity or standard interactivity no longer apply. New customer applications for Siebel Open UI take the place of some of the desupported standard interactivity applications.</td>
</tr>
<tr>
<td>“Enabling Siebel Open UI” (removed)</td>
<td></td>
</tr>
<tr>
<td>“About ActiveX Controls for High Interactivity” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Postinstallation Tasks for High Interactivity Clients” (removed)</td>
<td></td>
</tr>
</tbody>
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<tr>
<th>Topic</th>
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</tr>
</thead>
<tbody>
<tr>
<td>“Additional Tasks for Migration Installations” on page 57 (new)</td>
<td>New, removed, and modified topics. For migration installations of Siebel Innovation Pack 2016, some manual migration tasks are required on the Siebel Server, the Siebel Siebel Web Server Extension (SWSE), Siebel Web Client, and Siebel Tools, due to product changes such as directory restructuring. For example, the <code>webmaster</code> directory on the Siebel Server has been removed. The virtual directories now map to <code>public</code> on the SWSE instead of language directories like <code>public/ENU</code>. The Siebel Enterprise Security Token is no longer applicable. You must reconfigure the SWSE after installing. Additional requirements apply. <strong>NOTE:</strong> In Siebel Innovation Pack 2017, SWSE has been replaced by Siebel Application Interface, and virtual directories, per se, no longer apply. The contents of the <code>public</code> directory have moved.</td>
</tr>
<tr>
<td>“About the Siebel Enterprise Security Token” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Updating Web Server Static Files Using the Siebel Enterprise Security Token” (removed)</td>
<td></td>
</tr>
<tr>
<td>“Restarting the Web Server” (removed in Siebel Innovation Pack 2017)</td>
<td></td>
</tr>
<tr>
<td>“Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33</td>
<td>Modified topics. Added a new requirement to upgrade the Oracle Database Client and other requirements for performing migration installations.</td>
</tr>
<tr>
<td>“About Configuring Siebel Business Applications” on page 63</td>
<td></td>
</tr>
<tr>
<td>“Configuring the Siebel Gateway and Security” on page 74</td>
<td>Modified topic. Added configuration settings for Siebel Cache Server (Oracle Coherence). <strong>NOTE:</strong> In Siebel Innovation Pack 2017, Siebel Cache Server is now Siebel Enterprise Cache (still Oracle Coherence), which has its own installation and configuration tasks.</td>
</tr>
<tr>
<td>“Configuring the Siebel Enterprise” on page 84</td>
<td>Modified topic. Removed the information about configuration settings for Siebel Charts.</td>
</tr>
<tr>
<td>“Configuring the Siebel Server” on page 89</td>
<td>Modified topic. Added configuration settings for Siebel Cache Server (Oracle Coherence). <strong>NOTE:</strong> In Siebel Innovation Pack 2017, Siebel Cache Server is now Siebel Enterprise Cache (still Oracle Coherence), which has its own installation and configuration tasks.</td>
</tr>
</tbody>
</table>
What’s New in This Release

- Siebel Installation Guide for UNIX
- Siebel Innovation Pack 2017

Modified topics. Added anonymous user settings for the Siebel REST Server, which is the instance of Apache Tomcat that was installed with the Siebel Server. The Siebel Rest Proxy Object Manager component in the EAI component group is also new in this release. Updated the information about Siebel CRM product changes and server configuration requirements. See also *Siebel REST API Guide*.

**NOTE:** In Siebel Innovation Pack 2017, the Siebel Rest Proxy Object Manager component is no longer used as part of supporting Siebel REST functionality.

- "Deploying the Siebel Application Interface” on page 105

(Oracle Solaris only) Modified topic. As of Siebel Innovation Pack 2016, in the Siebel Web Server Extension Configuration Wizard task for applying the SWSE logical profile, you can specify whether you are using Oracle iPlanet Web Server or Apache Web Server.

**NOTE:** In Siebel Innovation Pack 2017, SWSE has been replaced by Siebel Application Interface, which is configured differently. Third-party Web servers like the ones mentioned are no longer supported.

- "About Database Updates for the Current Release” on page 129


- "Activating License Keys” on page 142

New topic. In Siebel Innovation Pack 2016, the license keys previously provided in seed data are inactive. A new utility is provided for activating or deactivating license keys.

- "Setting Up Your Environment to Support Global Time Zone” on page 143

Modified topic. Oracle does not support new Siebel CRM deployments that do not use UTC.

- "Obtaining Updated Siebel Repository Files”

Removed topic. For Siebel Innovation Pack 2016, updated Siebel Repository Files (SRF files) are provided with the release.

**NOTE:** In Siebel Innovation Pack 2017, the Siebel Runtime Repository is used in place of SRF files.

- "Configuring Support for CalDAV or CardDAV Publishing” on page 176


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<tr>
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<tr>
<td>&quot;Configuring the Siebel Server” on page 89</td>
<td>Modified topics. Added anonymous user settings for the Siebel REST Server, which is the instance of Apache Tomcat that was installed with the Siebel Server. The Siebel Rest Proxy Object Manager component in the EAI component group is also new in this release. Updated the information about Siebel CRM product changes and server configuration requirements. See also <em>Siebel REST API Guide</em>. <strong>NOTE:</strong> In Siebel Innovation Pack 2017, the Siebel Rest Proxy Object Manager component is no longer used as part of supporting Siebel REST functionality.</td>
</tr>
<tr>
<td>&quot;Enabling and Disabling Server Component Groups” on page 159</td>
<td></td>
</tr>
<tr>
<td>&quot;Deploying the Siebel Application Interface” on page 105</td>
<td>(Oracle Solaris only) Modified topic. As of Siebel Innovation Pack 2016, in the Siebel Web Server Extension Configuration Wizard task for applying the SWSE logical profile, you can specify whether you are using Oracle iPlanet Web Server or Apache Web Server. <strong>NOTE:</strong> In Siebel Innovation Pack 2017, SWSE has been replaced by Siebel Application Interface, which is configured differently. Third-party Web servers like the ones mentioned are no longer supported.</td>
</tr>
<tr>
<td>&quot;Activating License Keys” on page 142</td>
<td>New topic. In Siebel Innovation Pack 2016, the license keys previously provided in seed data are inactive. A new utility is provided for activating or deactivating license keys.</td>
</tr>
<tr>
<td>&quot;Setting Up Your Environment to Support Global Time Zone” on page 143</td>
<td>Modified topic. Oracle does not support new Siebel CRM deployments that do not use UTC.</td>
</tr>
<tr>
<td>&quot;Obtaining Updated Siebel Repository Files”</td>
<td>Removed topic. For Siebel Innovation Pack 2016, updated Siebel Repository Files (SRF files) are provided with the release. <strong>NOTE:</strong> In Siebel Innovation Pack 2017, the Siebel Runtime Repository is used in place of SRF files.</td>
</tr>
</tbody>
</table>
What’s New in This Release


<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Installing the Siebel Web Client” on page 181 (modified)</td>
<td>Modified topics and new topic. In Siebel Innovation Pack 2016, Oracle Database XE is used for the local database or sample database for Siebel Web Client or for the local database for Siebel Tools. SAP SQL Anywhere is no longer available. The new topic about installing Oracle Database XE for the local or sample database contains updated information and replaces previous topics about installing the local database or sample database.</td>
</tr>
<tr>
<td>“Installing Siebel Tools” on page 189 (modified)</td>
<td></td>
</tr>
<tr>
<td>“Installing and Using Oracle Database XE for the Local or Sample Database” on page 195 (new)</td>
<td></td>
</tr>
<tr>
<td>“Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200 (modified)</td>
<td></td>
</tr>
<tr>
<td>“About the Siebel Network Image” on page 353 (modified)</td>
<td></td>
</tr>
<tr>
<td>“About the Workspaces Feature in Siebel Tools and the Siebel Runtime Repository” on page 205</td>
<td>New topic. As of Siebel Innovation Pack 2016, Siebel Tools supports a new feature called workspaces, which provides a new way to manage the configuration of repository artifacts in Siebel Tools. This feature allows multiple developers to work against the same repository objects in the Siebel database.</td>
</tr>
<tr>
<td>“Installing Desktop Integration Siebel Agent on Client Computers” on page 206</td>
<td>New topic. Customers can install Desktop Integration Siebel Agent on user computers. This new software module enables users to use certain application features that formerly were based on Java applets.</td>
</tr>
<tr>
<td>“Installing Outlook to Siebel Drag and Drop on Client Computers” on page 206</td>
<td>New topic. Customers can install Outlook to Siebel Drag and Drop on user computers. This new addin for Microsoft Outlook enables users to drag and drop emails and attachments into Siebel Business Applications.</td>
</tr>
<tr>
<td>“Siebel Client Deployment Requirements When Using Firewalls or Proxy Servers” on page 207</td>
<td>New topic. This topic moved to this guide from Siebel System Administration Guide.</td>
</tr>
<tr>
<td>“Configuring Siebel Business Applications for Pop-Up Blocker Compatibility” on page 208</td>
<td>New topic. This topic moved to this guide from Siebel System Administration Guide.</td>
</tr>
<tr>
<td>“About Siebel QuickStart” “Enabling and Disabling Siebel QuickStart”</td>
<td>Removed topics. As of Siebel Innovation Pack 2016, Siebel QuickStart is no longer supported for the Siebel Mobile Web Client. The AutoStopDB configuration parameter also no longer applies.</td>
</tr>
</tbody>
</table>
About the Microsoft Windows and UNIX Versions of This Guide
This book is published in separate versions for Microsoft Windows or UNIX operating systems:

- **Siebel Installation Guide for Microsoft Windows**
- **Siebel Installation Guide for UNIX**

**NOTE:** For operating system support details, including supported versions and product support exceptions, see the Certifications tab on My Oracle Support.

In this guide, *Windows* refers to all of the Microsoft Windows operating system versions that are supported for server or client platforms (for applicable Siebel modules) for this release.

Supported UNIX operating systems include IBM AIX, HP-UX, Linux, and Oracle Solaris (for SPARC).

In *Siebel Installation Guide for UNIX*, supported Linux operating systems are usually discussed in generic terms and are not differentiated. *Siebel Installation Guide for UNIX* does not contain instructions for installing Siebel Business Applications on Windows or about Microsoft SQL Server.

Both the Windows and UNIX versions of this guide contain instructions for installing client-based modules, such as Siebel Web Clients or Siebel Tools, on Microsoft Windows.

**NOTE:** The *Siebel Installation Guides* for prior Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, and version 16.x releases are available on My Oracle Support, at 1461732.1 (Article ID).

Additional Information
The procedures in this guide assume that you do not use left-hand navigation. For information about implementing left-hand navigation, see *Siebel Fundamentals*.

For more information about third-party products, such as supported operating systems, RDBMS platforms, and so on, see the Certifications tab on My Oracle Support (https://support.oracle.com).

For Siebel CRM version 8.1.1.9 and later, version 8.2.2.2 and later, version 15.x, version 16.x, and version 17.x releases, the system requirements and supported platform certifications are available from the Certifications tab on My Oracle Support. For more information, see 1492194.1 (Article ID) on My Oracle Support.

**NOTE:** The current release makes extensive use of application containers. For detailed information about the configuration and administration of an application container outside of the Siebel configuration framework, see Apache Tomcat documentation.
This chapter provides an overview of installing Siebel Business Applications. It includes the following topics:

- **Installation-Related Changes for Siebel Innovation Pack 2017** on page 21
- **Before You Install Siebel Business Applications** on page 26
- **Overview of Siebel Business Applications Server Architecture** on page 29
- **Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment** on page 30
- **Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)** on page 33
- **Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)** on page 36

**Installation-Related Changes for Siebel Innovation Pack 2017**

The *Siebel Installation Guide* for the operating system you are using, for Siebel Innovation Pack 2017, describes several product changes and requirements that affect your installation tasks and the overall flow of these tasks. See also all of the relevant references in Chapter 1, “What’s New in This Release.”

- **Documentation is for Siebel Innovation Pack 2017.** The *Siebel Installation Guide* for the operating system you are using is for installing the Siebel CRM software for Siebel Innovation Pack 2017. With some differences, installation for this version is similar to that for previous releases. You can install Siebel CRM version 17.0 as a new installation or as a migration installation.

  As used in this guide, the term *current release* generally refers to Siebel CRM version 17.0. This term might also refer to functionality that changed relative to previous releases or other functionality that is available in the latest release.

  Siebel CRM version 17.0 includes new functionality and applicable functionality from previous Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, and version 16.x releases.

  Customers who had previously installed a Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x release can install Siebel CRM version 17.0 as a migration installation. When you migrate from one of these releases, you must also run Incremental Repository Merge, as described in *Siebel Database Upgrade Guide*. Additional requirements apply for the current release.
In release media or software contexts showing the Siebel CRM version number, the version is represented as version 17.0 or as the version of a Siebel Patchset release. When a Siebel Patchset release has been installed, the version number of the installed software increments to Siebel CRM version 17.1, 17.2, and so on. Therefore, the term current release might also apply to Siebel CRM version 17.x, such as version 17.1, 17.2, and so on.

Previous versions of the Siebel Bookshelf are still available. The Siebel Installation Guides for prior releases (Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, and version 16.x releases) are available on My Oracle Support, at 1461732.1 (Article ID). For detailed information about the installation features of prior releases, see these earlier guides.

Enhanced support for deployment on the cloud. In Siebel Innovation Pack 2017, several changes have been made to the Siebel CRM installation and deployment process and to the Siebel CRM architecture. Many of these changes, described in the rest of this topic and elsewhere, make it easier to deploy Siebel Innovation Pack 2017 on the cloud. The Siebel CRM environment now uses embedded application container functionality and RESTful services. The new framework eliminates dependency on third-party Web servers and reduces dependency on other operating system-specific modules. Installations of Siebel Enterprise Server and Siebel Application Interface modules now include deployment of WAR files into the application container and configuration of application container ports.

NOTE: For detailed information about the configuration and administration of an application container outside of the Siebel configuration framework, see Apache Tomcat documentation.

New Siebel Gateway replaces Siebel Gateway Name Server. As of Siebel Innovation Pack 2017, the functions previously provided by Siebel Gateway Name Server are now performed by a new module called Siebel Gateway. This module is installed with the updated version of the Siebel Enterprise Server installer.

Siebel Gateway uses embedded application container functionality to manage communications with other modules. Configuration data for the Siebel environment is stored internally to Siebel Gateway. The siebns.dat file is no longer used. The Siebel Server installation also includes embedded application container functionality as part of communication with the Siebel Gateway. The authentication framework for accessing Siebel Gateway has changed. For more information, see Chapter 3, “Installing Siebel Business Applications Server Modules.”
New Siebel Application Interface replaces Siebel Web Server Extension. As of Siebel Innovation Pack 2017, the functions previously provided by Siebel Web Server Extension (SWSE) are now performed by a new module called Siebel Application Interface. This module is installed with the updated version of the Siebel Enterprise Server installer.

Siebel Application Interface uses an internal Web application server, including application container functionality, to manage Siebel CRM Web requests that were formerly handled by SWSE installed on a third-party Web server. You install this module using the Siebel Enterprise Server installer. Note that you cannot install Siebel Application Interface in the same location as the other modules. Install separate instances of Siebel Application Interface for customer applications (in the DMZ) and employee applications (in the intranet).

Siebel native load balancing has changed in the current release. When a user requests a new application connection, Siebel Application Interface sends a request to Siebel Gateway, which returns a connect string for the least-loaded Application Object Manager from among the Siebel Servers supporting that component. The user session will use this Application Object Manager.

The application configurations formerly defined in the eapps.cfg file and associated with virtual directories on the Web server are now managed by the Siebel Management Console and stored in the Siebel Gateway registry. The new_virdirs script for adding newly available applications to a previously configured SWSE is not applicable for this release. Where virtual directories formerly mapped to the public directory on the SWSE, application configurations now map to applicationcontainer/webapps/siebel in the Siebel Application Interface installation.

The URL format for Siebel Business Applications has been updated and standardized for Siebel Business Applications, Siebel EAI, REST, SOAP, CalDAV, CardDAV, and other programs or technologies. For more information, see Chapter 3, “Installing Siebel Business Applications Server Modules.”

New Siebel Management Console replaces Siebel Configuration Wizards. As of Siebel Innovation Pack 2017, most of the initial configuration of the Siebel CRM environment is done through the Siebel Management Console, a new Web-based application provided with the Siebel Application Interface installation. Most of the Siebel Configuration Wizards are no longer provided. (Database Configuration Wizard and related utilities still use the old Siebel Configuration Wizard framework.) Several new modules can now be configured using the Siebel Management Console. The sequence in which you perform configuration tasks has also changed. For more information, see Chapter 4, “Configuring Siebel Business Applications Server Modules.”

New Siebel Migration application installed with Siebel Application Interface. The new Siebel Migration application, a Web-based tool for migrating Siebel Repositories and seed data and performing related tasks, is provided with the Siebel Application Interface installation. The Siebel Management Console includes tasks for configuring the Siebel Migration application. For more information, see Chapter 3, “Installing Siebel Business Applications Server Modules,” and Chapter 4, “Configuring Siebel Business Applications Server Modules.” See also “About Installing in Upgrade Environments” on page 282 and Siebel Database Upgrade Guide.
Overview of Installing Siebel Business Applications

Installation-Related Changes for Siebel Innovation Pack 2017

■ **Enhanced support for Siebel Enterprise Cache.** The Siebel Enterprise Server installer now provides the option of installing the Siebel Enterprise Cache (formerly called Siebel Cache Server), and the Siebel Management Console includes tasks for configuring and managing the Enterprise Cache Server and the Enterprise Cache Client. The Siebel Enterprise Cache, which is based on Oracle Coherence, is used by the Siebel Constraint Engine (which is available as a developer preview). For more information, see Chapter 3, “Installing Siebel Business Applications Server Modules,” and Chapter 4, “Configuring Siebel Business Applications Server Modules.”

■ **Enhanced support for Siebel Constraint Engine used by Siebel Product Configurator.** The Siebel Product Configurator integration with Oracle Advanced Constraint Technology is available as a developer preview. The Siebel Constraint Engine is part of this integration, which also requires the Siebel Enterprise Cache. The Siebel Enterprise Server installer now provides options for installing both the Siebel Enterprise Cache and the Siebel Constraint Engine, and the Siebel Management Console includes tasks for configuring and managing these modules. For more information, see Chapter 3, “Installing Siebel Business Applications Server Modules,” and Chapter 4, “Configuring Siebel Business Applications Server Modules.” See also Siebel Product Administration Guide and Article ID 2112562.1 on My Oracle Support.

■ **Siebel runtime repository replaces Siebel Repository Files.** In Siebel Innovation Pack 2017, Siebel Composer is now generally available. Siebel Repository Files (SRF) are no longer used, and Siebel applications use the Siebel runtime repository instead. Siebel Tools and Siebel Web Tools always use the Siebel runtime repository configuration provided by Oracle and cannot use a customer-modified Siebel runtime repository. (For troubleshooting purposes, Siebel applications using the Siebel Web Client or Mobile Web Client can also be configured to use the Siebel runtime repository provided by Oracle.) The objects directory (former SRF location) has been removed for all applicable Siebel modules. For more information, see Using Siebel Tools. See also Siebel System Administration Guide.

■ **Custom Siebel Web template files migrate to Siebel database.** In Siebel Innovation Pack 2017, custom Siebel Web template files migrate into the Siebel database when you run Incremental Repository Merge, as described in Siebel Database Upgrade Guide. For more information, see “Additional Tasks for Migration Installations” on page 57.

■ **Existing customers must perform additional migration tasks.** In Siebel Innovation Pack 2017, existing configuration settings for SWSE are not automatically migrated to Siebel Application Interface. You must remove the existing configuration for SWSE. Before installing, you must run an additional command to attach the Oracle home from the prior release. You must perform the Siebel Application Interface migration installation first, before that for all other modules. After completing the migration installation for all server modules, you must configure Siebel Application Interface using the Siebel Management Console. Other requirements apply for all migration installations. For more information, see “Additional Tasks for Migration Installations” on page 57.

■ **Migration customers might need upgrade the database client.** In a migration installation case, you might need to upgrade the database client software to a supported version for Siebel Innovation Pack 2017, as noted in the Certifications tab on My Oracle Support. Also update the path to the database client installation in the environment variables. Do this after performing the migration installations. For more information, see “About Configuring Siebel Business Applications” on page 63. See also “Additional Tasks for Migration Installations” on page 57.
Additional customer applications are available. In Siebel Innovation Pack 2017, additional customer applications for Siebel Open UI are provided that were previously desupported in Siebel Innovation Pack 2016, but were available for standard interactivity in prior releases. The additional applications are available for new deployments or, through the upgrade process, for existing deployments. For more information, see Siebel Database Upgrade Guide and relevant application-related guides.

32-bit versions of the local database and sample database are no longer provided. In Siebel Innovation Pack 2017, the local database and sample database are provided in the 64-bit versions only. The 32-bit versions are no longer provided as JAR files or as selections in Siebel Image Creator. For more information about Siebel Image Creator, see Chapter 12, “Creating the Siebel Installation Image on the Network.”

Enhanced support for CalDAV and CardDAV. In Siebel Innovation Pack 2017, support for CalDAV and CardDAV is enhanced. For information about enabling this functionality, see “Configuring Support for CalDAV or CardDAV Publishing” on page 176.

Enhanced support for Desktop Integration Siebel Agent (DISA) and Outlook to Siebel Drag and Drop. In Siebel Innovation Pack 2017, support for Desktop Integration Siebel Agent (DISA) and Outlook to Siebel Drag and Drop has been enhanced. For more information, see “Installing Desktop Integration Siebel Agent on Client Computers” on page 206 and “Installing Outlook to Siebel Drag and Drop on Client Computers” on page 206. For more information, see Desktop Integration Siebel Agent Guide.

Siebel Test Execution is now available. In Siebel Innovation Pack 2017, Siebel Test Execution can now be installed alongside of Siebel CRM. This module, which facilitates automated testing of Siebel CRM, is available through separate packaging than the media for Siebel Innovation Pack 2017. For more information, see Testing Siebel Business Applications.

Siebel Approval Manager is now available. In Siebel Innovation Pack 2017, the Siebel Approval Manager can now be installed alongside of Siebel CRM. This module, which facilitates tracking of approvals for development work related to Siebel CRM, is available through separate packaging than the media for Siebel Innovation Pack 2017. For more information, see Siebel Approval Manager Guide.

Oracle LDAP Client is no longer provided. In Siebel Innovation Pack 2017, the Oracle LDAP Client is no longer provided as part of Siebel product media. Obtain it separately from Oracle Software Delivery Cloud.

Oracle Configuration Manager is no longer installed. In Siebel Innovation Pack 2017, the Oracle Configuration Manager is no longer installed with Siebel CRM. As a result, Siebel installer steps are simplified.
Before You Install Siebel Business Applications

Before you install Siebel Business Applications, you must perform the preinstallation tasks. Some of these tasks are described in *Siebel Deployment Planning Guide.*

1. Review all documented hardware and software requirements.
   
   For more information, see the installation guidelines in this topic and the information referenced there.

2. Review the worksheet in Appendix A, “Siebel Deployment Planning Worksheet,” or create your own worksheet, and fill it in as you prepare for installing Siebel Business Applications.

3. Plan and prepare for your deployment.

4. Configure your RDBMS.
   
   **NOTE:** You can configure the RDBMS at any point before you run the Siebel Database Configuration Wizard. Most of the database tasks described in this guide do not apply if you have an existing Siebel database, such as in an upgrade environment.

   This task applies only for “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30. For more information, see “Planning RDBMS Installation and Configuration” on page 286 and Chapter 11, “Configuring the RDBMS.”

5. Obtain the Siebel media and create a Siebel installation image on the network, from which you will perform installations.

   Obtain the media for the current release of Siebel Business Applications, Siebel CRM version 17.0. For more information, see Chapter 12, “Creating the Siebel Installation Image on the Network.”


   For more information, see “File and Directory Naming Conventions” on page 297 and “Creating the Siebel File System” on page 298.

7. Create the required Siebel accounts.

   For more information, see “Creating the Siebel Service Owner Account” on page 302.

8. Review all security requirements and take the necessary preparatory steps for either a new installation or a migration installation.

9. Perform any manual migration tasks that might be required prior to performing migration installations for an existing deployment, as described in “Additional Tasks for Migration Installations” on page 57.

   This step applies only for “Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33.
Installation Guidelines

Follow these general guidelines for your installations:

- Before installing any Siebel module, review all documented requirements, including those found in “About Installation Tasks for Siebel Business Applications” on page 41 and in Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications." Also review the information in Siebel Deployment Planning Guide, Siebel Security Guide, other relevant guides on Siebel Bookshelf, and the Certifications tab on My Oracle Support.

- You must plan for the installation and management of the Siebel CRM server modules that you are installing. Review the installation instructions and the installer screens to help you understand the information that is requested by the installers. Such information includes installation locations, languages, application container port numbers, other port numbers, and authentication settings.

- When you install the Siebel Business Applications, as described in “Installing Siebel Business Applications” on page 43, the installer prompts you to specify valid keystore and truststore files, which are Java files containing certificates.

  The keystore and truststore files are necessary for the application container to use secure two-way communications when connecting with other Siebel modules, as occurs during Siebel Management Console configuration and in normal operation. These files must contain the server certificate chain and an imported CA certificate. Generate your files so that the keystore file references both the private key and the public key, while the truststore file references the public key only. Specify the password that was previously configured to open the certificate files. If you do not configure these files correctly, then you will not be able to configure the Siebel Business Applications, as described in Chapter 4, "Configuring Siebel Business Applications Server Modules." See also Siebel Security Guide.

- Various restrictions and guidelines apply regarding which server modules must be installed separately or are recommended to be installed separately from other modules. The installer prevents installation combinations that are not allowed, and warns for installation combinations that are not recommended for production or other end-user environments. For example, Siebel Application Interface must be installed in a separate installation location or on a different computer or operating system instance from all other modules. For more information, see “About Installation Tasks for Siebel Business Applications” on page 41.

- You install Siebel Gateway for each Siebel Enterprise. You can install it with Siebel Server or install it separately, depending on your requirements. For more information, see “About Installation Tasks for Siebel Business Applications” on page 41.

- You install Siebel Database Configuration Utilities once, together with the first Siebel Server installed. You must install it with a Siebel Server.

- You install all of the Siebel CRM server modules that you will require to get started, and then you configure them.

  Various requirements apply to the sequence in which you must perform configuration tasks. Security requirements such as for authentication affect many phases of your installation and configuration process, including the overall task sequence. For example, depending on your authentication method, you might need to install the Siebel database for a new deployment before you configure the Siebel CRM server modules using the Siebel Management Console.
The migration installation and database upgrade cases differ in their requirements for installation sequence, Siebel database tasks, configuration of the Siebel environment, and other post-installation tasks.

For example, for migration installations, you must perform the migration installation of the Siebel Application Interface first (for your existing installation of SWSE). Then perform the migration installation of the Siebel Gateway and Siebel Server.

You can install additional instances of Siebel Server and Siebel Application Interface, as needed, for medium-sized or larger deployments.

It is recommended that, after you install the current release for each applicable Siebel module, you install the latest Siebel Patchset release, where available. For more information, see “About Siebel CRM Releases” on page 280.

You must activate license keys for the current release, using the License Key Activation utility, after you install a new database, run Incremental Repository Merge (for migration installations), or complete a full database upgrade.

Related Topics
“About Installation Tasks for Siebel Business Applications” on page 41
Chapter 10, “Requirements for Installing and Configuring Siebel Business Applications”

Related Books
Siebel Deployment Planning Guide
Siebel Security Guide
Deploying Siebel Open UI
Siebel Performance Tuning Guide
Siebel System Administration Guide
Certifications tab on My Oracle Support
Install & Configure Advisor: Siebel Innovation Pack 2017 (17.0), 2277538.2 (Article ID) on My Oracle Support
Overview of Siebel Business Applications Server Architecture

Figure 1 on page 29 illustrates a simplified architecture for the server elements in your Siebel deployment, after you have initially installed and configured the software. For a more detailed illustration, see Siebel Deployment Planning Guide.

The Siebel CRM installation and configuration process requires multiple tasks that you perform in a general sequence that depends on your installation case. For more information, see:

- "Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
- "Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33
- "Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

Related Topics
“Before You Install Siebel Business Applications” on page 26
Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications”

Related Books
Siebel Deployment Planning Guide
Siebel Security Guide
Siebel System Administration Guide
Certifications tab on My Oracle Support
Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment

Use this roadmap to guide you in performing the installation and configuration tasks for deploying the current release of Siebel CRM, where there is no existing Siebel CRM installation and no existing Siebel database. The current release is Siebel CRM version 17.0 (Siebel Innovation Pack 2017).

Figure 2 on page 30 presents a simplified view of the installation and configuration tasks for Siebel CRM server modules for a new deployment.

NOTE: This illustration does not mention installing the Siebel Enterprise Cache or the Siebel Constraint Engine, or configuring security, the Siebel Enterprise Cache, the Siebel Constraint Engine, or the Siebel Migration application. However, those tasks, where applicable, are implicitly part of this roadmap. The Siebel Constraint Engine is available as a developer preview.

Figure 2. Installing and Configuring Servers for a New Deployment

Unless you use another authentication method, a Siebel database must exist before you can configure the Siebel CRM modules, in order to provide an authentication framework for the configuration tasks. You install Database Configuration Utilities with the first Siebel Server.

NOTE: It is recommended that, for each applicable Siebel module, you install the latest Siebel Patchset release, where available. Install the patchset before you configure the Siebel products. For more information, see “About Siebel CRM Releases” on page 280.

The installation process for Siebel Business Applications for a new deployment requires multiple tasks that you perform in the following general sequence:

2 Create the network images for all applicable releases of Siebel CRM:
   ■ Create a network image for the current release, Siebel CRM version 17.0.
   ■ Create a network image for the latest Siebel Patchset release, where available.
   See Chapter 12, “Creating the Siebel Installation Image on the Network.”

3 For the Siebel Enterprise Server, install the current release. Then install the latest Siebel Patchset release. You can install the following components:
   ■ Siebel Application Interface
   ■ Siebel Gateway
   ■ Siebel Server
   ■ Database Configuration Utilities (install with the first Siebel Server)
   ■ EAI Connector (optional)
   ■ Siebel Enterprise Cache (optional)
   ■ Siebel Constraint Engine (optional, available as a developer preview)

   **NOTE:** Restrictions apply to installing Siebel components together. For example, you must install Siebel Application Interface in a different installation location or on a different computer or operating system instance than the other Siebel Enterprise Server components. For more information, see “About Installation Tasks for Siebel Business Applications” on page 41.

   As part of installation, you also specify authentication information and port numbers that will be used by your Siebel CRM deployment. The port numbers must be unique on each installation computer or operating system instance.

4 Verify the installation of Siebel Business Applications modules.
   See Chapter 8, “Verifying and Troubleshooting Your Installation.”

5 Configure the RDBMS.
   See Chapter 11, “Configuring the RDBMS.”

6 Install the Siebel database.
   This task installs a Siebel database for the current release. This database contains schema changes, Siebel Repositories, and seed data for Siebel CRM functionality through the current release.
   See Chapter 5, “Installing the Siebel Database on the RDBMS.”

7 Activate the license keys.
   See “Activating License Keys” on page 142.

8 Run the Siebel Management Console and configure your Siebel deployment:
   a Configure a security profile.
   b Configure the Siebel Gateway.
c Configure the Siebel Enterprise.
d Configure the Siebel Server.
e Configure the Siebel Application Interface.
f Perform any other configuration tasks that you require for your deployment.

Chapter 4, “Configuring Siebel Business Applications Server Modules.”

9 Perform additional postinstallation tasks for the Siebel Server.

See Chapter 6, “Additional Postinstallation and Configuration Tasks.”

10 For Siebel Tools, install the current release. Then install the latest Siebel Patchset release.

**NOTE:** When you install the current release, Oracle Database XE is installed for use with the local database. You can optionally install the local database with Siebel Tools.


11 For Siebel Mobile Web Clients (or Developer Web Clients), install the current release. Then install the latest Siebel Patchset release.

**NOTE:** When you install the current release, Oracle Database XE is installed for use with the local database or sample database, for Siebel Mobile Web Client. You can optionally install the sample database with this client.


12 Verify the installation of Siebel Tools and Siebel Mobile Web Clients.

See Chapter 8, “Verifying and Troubleshooting Your Installation.”

13 (Optional) Install additional Siebel modules. For example:

- Desktop Integration Siebel Agent (DISA)
- Install Siebel Search software
- Siebel Test Execution
- Siebel Approval Manager

14 (Optional) Install and configure additional instances of Siebel Server or Siebel Application Interface if they are required for your deployment, then verify each installation.

15 Perform any remaining postinstallation tasks. For example, install any required third-party products.

See the Certifications tab on My Oracle Support.

See Chapter 6, “Additional Postinstallation and Configuration Tasks.”

**Related Topics**

"Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33

"Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36
Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)

Use this roadmap to guide you in performing the installation tasks for deploying the current release of Siebel CRM, where there is an existing installation of a prior version. This is the migration installation case. Migration installation is analogous to patch installation. The current release is Siebel CRM version 17.0 (Siebel Innovation Pack 2017).

You use this roadmap when you have an existing Siebel Business Applications installation of a prior release of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x. You must perform the migration installation tasks for your existing installed Siebel CRM software.

**TIP:** For the upgrade case, where you are upgrading to the current release from a Siebel CRM release prior to version 8.1.1 or version 8.2.2, see “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36 instead. In an upgrade case, you perform a full database upgrade instead of running Incremental Repository Merge. In general, this book uses the term *migration* to refer to a migration installation and uses the term *upgrade* to refer to a full database upgrade.

Figure 3 on page 33 presents a simplified view of the installation and configuration tasks for Siebel CRM server modules for a migration deployment.

**NOTE:** This illustration does not mention installing the Siebel Enterprise Cache or the Siebel Constraint Engine, or configuring security, the Siebel Enterprise Cache, the Siebel Constraint Engine, or the Siebel Migration application. However, those tasks, where applicable, are implicitly part of this roadmap. The Siebel Constraint Engine is available as a developer preview.

**NOTE:** It is recommended that, for each applicable Siebel module, you install the latest Siebel Patchset release after you install the current release. For more information, see “About Siebel CRM Releases” on page 280.
This roadmap only summarizes the migration installation process and does not include details about required tasks. For example, you must do the following tasks after performing the migration installation tasks. See also "Additional Tasks for Migration Installations" on page 57.

**Upgrade the database client.** You might need to upgrade the database client software to a supported version for Siebel Innovation Pack 2017, as noted in the Certifications tab on My Oracle Support. Also update the database client installation path in the defined environment variables. See "About Configuring Siebel Business Applications" on page 63.

**Run Incremental Repository Merge.** Customers must run Incremental Repository Merge. Before doing this, you must have installed at least one Siebel Server with Database Configuration Utilities and installed Siebel Tools. For more information about Incremental Repository Merge, see *Siebel Database Upgrade Guide*.

**Reset passwords in Siebel Gateway and on the Siebel Server.** Customers must reset any passwords on the Siebel Gateway that were previously encrypted using encryption other than AES. In the current release, such passwords are encrypted using AES. For more information about reencrypting these passwords, see *Siebel Security Guide*. See also "Additional Tasks for Migration Installations" on page 57.

The installation process for Siebel Business Applications in a migration installation case requires multiple tasks that you perform in the following general sequence:

1. Before performing installation tasks, review all documented requirements and perform any necessary premigration tasks.
   
   See "Before You Install Siebel Business Applications" on page 26 and "Additional Tasks for Migration Installations" on page 57.

2. Create the network images for all applicable releases of Siebel CRM:
   
   - Create a network image for the current release, Siebel CRM version 17.0.
   - Create a network image for the latest Siebel Patchset release, where available.
   
   See Chapter 12, "Creating the Siebel Installation Image on the Network."

3. Remove the existing configuration on the Web server computer where you previously installed Siebel Web Server Extension (SWSE).
   
   **CAUTION:** You must perform this task before you perform the migration installation of Siebel Application Interface for the existing installation of SWSE.
   
   See "Additional Tasks for Migration Installations" on page 57 and "About Configuring Siebel Business Applications" on page 63.

4. For the Siebel Application Interface, install the current release as a migration installation for each existing installation of Siebel Web Server Extension (SWSE). Then install the latest Siebel Patchset release.
   
   As part of installation, also specify authentication information and port numbers that will be used by your Siebel CRM deployment. The port numbers must be unique on each installation computer or operating system instance.
   
   See Chapter 3, "Installing Siebel Business Applications Server Modules."
5 For the remaining Siebel Enterprise Server modules, install the current release as a migration installation for each existing installation. Then install the latest Siebel Patchset release. Also perform any necessary postmigration tasks.

As part of installation, also specify authentication information and port numbers that will be used by your Siebel CRM deployment. The port numbers must be unique on each installation computer or operating system instance.

**NOTE:** When you migrate the Siebel Gateway, you also must provide information to allow your existing configurations to migrate. This includes the port number of the existing Siebel Gateway Name Server as well as some Siebel Application Interface settings that you specified in Step 4 on page 34. (If you installed multiple instances of Siebel Application Interface, then specify the settings that apply to the instance of Siebel Application Interface from which you will run Siebel Management Console.)

See Chapter 3, "Installing Siebel Business Applications Server Modules." See also "Additional Tasks for Migration Installations" on page 57.

6 Verify the installation of Siebel Business Applications modules.

See Chapter 8, "Verifying and Troubleshooting Your Installation."

7 For Siebel Tools, install the current release as a migration installation for each existing installation. Then install the latest Siebel Patchset release. Also perform any necessary postmigration tasks.

**NOTE:** When you install the current release, Oracle Database XE is installed for use with the local database. You can optionally install the local database with Siebel Tools.

See Chapter 7, "Installing Siebel Web Clients and Siebel Tools." See also "Additional Tasks for Migration Installations" on page 57.

8 For Siebel Mobile Web Clients (or Developer Web Clients), install the current release as a migration installation for each existing installation. Then install the latest Siebel Patchset release. Also perform any necessary postmigration tasks.

**NOTE:** When you install the current release, Oracle Database XE is installed for use with the local database or sample database, for Siebel Mobile Web Client. You can optionally install the sample database with this client.

See Chapter 7, "Installing Siebel Web Clients and Siebel Tools." See also "Additional Tasks for Migration Installations" on page 57.

9 Verify the installation of Siebel Tools and Siebel Mobile Web Clients.

See Chapter 8, "Verifying and Troubleshooting Your Installation."

10 Run Incremental Repository Merge on the Siebel database.

See Siebel Database Upgrade Guide.

11 Run the Siebel Management Console and configure your Siebel deployment:

a Configure the Siebel Application Interface.

b Perform any other configuration tasks that you require for your deployment.

Chapter 4, "Configuring Siebel Business Applications Server Modules."
12 Perform additional postinstallation tasks for the Siebel Server.
   See Chapter 6, “Additional Postinstallation and Configuration Tasks.”

13 (Optional) Install additional Siebel modules. For example:
   ■ Desktop Integration Siebel Agent (DISA)
   ■ Install Siebel Search software
   ■ Siebel Test Execution
   ■ Siebel Approval Manager

14 (Optional) Install and configure additional instances of Siebel Server or Siebel Application Interface if they are required for your deployment, then verify each installation.

15 Perform any remaining postinstallation tasks. For example, install or upgrade any required third-party products.
   See the Certifications tab on My Oracle Support.
   See Chapter 6, “Additional Postinstallation and Configuration Tasks.”

Related Topics
“Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
“Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)

Use this roadmap to guide you in performing the installation and configuration tasks for deploying the current release of Siebel CRM, where there is an existing Siebel database and you are upgrading to the current release from a Siebel CRM release prior to version 8.1.1 or version 8.2.2. The current release is Siebel CRM version 17.0 (Siebel Innovation Pack 2017).

TIP: For the migration installation case, where you are upgrading to the current release from an existing installation of a prior release of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x, see “Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33 instead. In a migration installation, you run Incremental Repository Merge instead of performing a full database upgrade. In general, this book uses the term migration to refer to a migration installation and uses the term upgrade to refer to a full database upgrade.
Figure 4 on page 37 presents a simplified view of the installation and configuration tasks for Siebel CRM server modules for an upgrade installation case. You install Database Configuration Utilities with the first installed Siebel Server.

**NOTE:** This illustration does not mention installing the Siebel Enterprise Cache or the Siebel Constraint Engine, or configuring security, the Siebel Enterprise Cache, the Siebel Constraint Engine, or the Siebel Migration application. However, those tasks, where applicable, are implicitly part of this roadmap. The Siebel Constraint Engine is available as a developer preview.

**NOTE:** It is recommended that, for each applicable Siebel module, you install the latest Siebel Patchset release, where available. Install the patchset before you configure the Siebel products. For more information, see “About Siebel CRM Releases” on page 280.

This roadmap only briefly mentions the Siebel database upgrade tasks. Before you upgrade the database, you must have installed at least one Siebel Server with Database Configuration Utilities and installed Siebel Tools. For more information about upgrading, see “About Installing in Upgrade Environments” on page 282 and see *Siebel Database Upgrade Guide*.

The installation process for Siebel Business Applications in an upgrade installation case requires multiple tasks that you perform in the following general sequence:


2. Create the network images for all applicable releases of Siebel CRM:
   - Create a network image for the current release, Siebel CRM version 17.0.
   - Create a network image for the latest Siebel Patchset release, where available.
   See Chapter 12, “Creating the Siebel Installation Image on the Network.”

3. For the Siebel Enterprise Server, install the current release. Then install the latest Siebel Patchset release. You can install the following components:
   - Siebel Application Interface
Overview of Installing Siebel Business Applications

Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)

- Siebel Gateway
- Siebel Server
- Database Configuration Utilities (install with the first Siebel Server)
- EAI Connector (optional)
- Siebel Enterprise Cache (optional)
- Siebel Constraint Engine (optional, available as a developer preview)

**NOTE:** Restrictions apply to installing Siebel components together. For example, you must install Siebel Application Interface in a different installation location or on a different computer or operating system instance than the other Siebel Enterprise Server components. For more information, see “About Installation Tasks for Siebel Business Applications” on page 41.

As part of installation, also specify authentication information and port numbers that will be used by your Siebel CRM deployment. The port numbers must be unique on each installation computer or operating system instance.


4 Verify the installation of Siebel Business Applications modules.

See Chapter 8, “Verifying and Troubleshooting Your Installation.”

5 Upgrade the Siebel database.

See “About Installing in Upgrade Environments” on page 282 and see **Siebel Database Upgrade Guide**.

6 Activate the license keys.

See “Activating License Keys” on page 142.

7 Run the Siebel Management Console and configure your Siebel deployment:
   a Configure a security profile.
   b Configure the Siebel Gateway.
   c Configure the Siebel Enterprise.
   d Configure the Siebel Server.
   e Configure the Siebel Application Interface.
   f Perform any other configuration tasks that you require for your deployment.

   Chapter 4, “Configuring Siebel Business Applications Server Modules.”

8 Perform additional postinstallation tasks for the Siebel Server.

   See Chapter 6, “Additional Postinstallation and Configuration Tasks.”

9 For Siebel Tools, install the current release. Then install the latest Siebel Patchset release.

   **NOTE:** When you install the current release, Oracle Database XE is installed for use with the local database. You can optionally install the local database with Siebel Tools.

10 For Siebel Mobile Web Clients (or Developer Web Clients), install the current release. Then install the latest Siebel Patchset release.

**NOTE:** When you install the current release, Oracle Database XE is installed for use with the local database or sample database, for Siebel Mobile Web Client. You can optionally install the sample database with this client.


11 Verify the installation of Siebel Tools and Siebel Mobile Web Clients.

See Chapter 8, “Verifying and Troubleshooting Your Installation.”

12 (Optional) Install additional Siebel modules. For example:

- Desktop Integration Siebel Agent (DISA)
- Install Siebel Search software
- Siebel Test Execution
- Siebel Approval Manager

13 (Optional) Install and configure additional instances of Siebel Server or Siebel Application Interface if they are required for your deployment, then verify each installation.

14 Perform any remaining postinstallation tasks. For example, install or upgrade any required third-party products.

See the Certifications tab on My Oracle Support.

See Chapter 6, “Additional Postinstallation and Configuration Tasks.”

**Related Topics**

"Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30

"Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33
Overview of Installing Siebel Business Applications - Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)
This chapter explains how to install the server modules for Siebel Business Applications. This chapter includes the following topics:

■ About Installation Tasks for Siebel Business Applications on page 41
■ Installing Siebel Business Applications on page 43
■ Installing Siebel Business Applications in Unattended Mode on page 54
■ Additional Tasks for Migration Installations on page 57

About Installation Tasks for Siebel Business Applications

Use the Siebel Enterprise Server installer to install the server modules for Siebel Business Applications, including Siebel Gateway, Siebel Server, Database Configuration Utilities, and Siebel Application Interface. Siebel Application Interface replaces the Siebel Web Server Extension (SWSE) from prior releases. Optionally, you can also install EAI Connector, Siebel Enterprise Cache, and Siebel Constraint Engine (which is available as a developer preview). This chapter describes both new installations and migration installations.

Before installing Siebel Business Applications server modules, review the following and perform any necessary preinstallation tasks:

■ “Before You Install Siebel Business Applications” on page 26 and other topics in Chapter 2, “Overview of Installing Siebel Business Applications”
■ “Additional Tasks for Migration Installations” on page 57
■ “Installation and Configuration Methods by Deployment Type” on page 303 and other topics in Chapter 10, “Requirements for Installing and Configuring Siebel Business Applications”

Use the instructions in this chapter to install the following modules:

■ Siebel Application Interface
■ Siebel Gateway
■ Siebel Server
■ EAI Connector (optional)
■ Database Configuration Utilities (install with the first Siebel Server)
■ Siebel Enterprise Cache (optional)
■ Siebel Constraint Engine (optional, available as a developer preview; see also Siebel Product Administration Guide and Article ID 2112562.1 on My Oracle Support)
Various restrictions and guidelines apply regarding which server modules must be installed separately or are recommended to be installed separately from other modules. Note the following restrictions and guidelines for installing these modules:

- **Siebel Application Interface** must be installed in a separate installation location or on a different computer or operating system instance from all other modules.
- **Siebel Gateway** cannot be installed with either of the following components:
  - Siebel Enterprise Cache
  - Siebel Constraint Engine
- You cannot install **Database Configuration Utilities** without also installing a Siebel Server.
- If you are installing and deploying **Siebel Constraint Engine** (available as a developer preview), then you must also install and deploy **Siebel Enterprise Cache** somewhere in your Siebel deployment.
- Some installation combinations are strongly recommended against. The installer prevents installation combinations that are not allowed, and warns for installation combinations that are not recommended for production or other end-user environments.
- For modules that are new in the current release, you must perform a new installation, as the migration installation option is not available.
- You cannot install another module into an existing installation of the current version, even where such a combination might otherwise be allowed. You must perform a new installation into a different location.

For more information about different ways of deploying Siebel Business Applications server modules, see “Installation and Configuration Methods by Deployment Type” on page 303.

After a new installation, you install the Siebel database and then you configure server modules using the Siebel Management Console. You perform the configuration tasks after installing the current release (Siebel CRM version 17.0) and installing the latest Siebel Patchset release, where available.

Migration installation is analogous to patch installation for an existing installation. You perform migration installations using the same installer that you use for new installations. A migration installation replaces your existing installation with a new installation. However, the installation location, installation languages, server configuration data, and other settings from the existing installation are used for the new installation, where feasible. Before the new installation is performed, the existing installation is moved to a backup location and can no longer be used.

**NOTE:** In a migration installation case, you must install Siebel Application Interface before you install any other modules. In the current release, a migration installation of Siebel Application Interface does not copy customer configurations or files from your existing installation of SWSE to the new installation. After completing all of the migration installations, you must configure the Siebel Application Interface.

You must perform any necessary manual migration tasks prior to performing migration installations, as described in "Additional Tasks for Migration Installations” on page 57. For example, you must remove the existing configuration for the SWSE before you install Siebel Application Interface as a migration installation. If you are using data encryption, then you must back up the key file.

For client installation, see Chapter 7, "Installing Siebel Web Clients and Siebel Tools.”
Installing Siebel Business Applications

This topic provides instructions for installing Siebel Business Applications server modules, using the GUI installation method, as part of standard deployment. Use these instructions to install the following modules:

- Siebel Application Interface
- Siebel Gateway
- Siebel Server
- EAI Connector (optional)
- Database Configuration Utilities (install with the first Siebel Server)
- Siebel Enterprise Cache (optional)
- Siebel Constraint Engine (optional, available as a developer preview)

For more information about installing these modules, see "About Installation Tasks for Siebel Business Applications" on page 41. See also Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications."

NOTE: This topic includes instructions for installing Siebel Business Applications server modules in a new installation or in a migration installation. For an existing installation, you perform a migration installation instead of a new installation.

This topic contains the following information:

- “Installing Siebel Business Applications in a New Installation” on page 44
- “Installing Siebel Business Applications in a Migration Installation” on page 49

Related Topics

"Installing Siebel Business Applications in Unattended Mode" on page 54
Chapter 4, "Configuring Siebel Business Applications Server Modules"
Chapter 6, "Additional Postinstallation and Configuration Tasks"
"Verifying Installation for Siebel Business Applications" on page 217
Installing Siebel Business Applications in a New Installation

Use the following procedure to install Siebel Business Applications server modules in a new installation for Siebel CRM version 17.0. This topic is part of “Installing Siebel Business Applications” on page 43.

**NOTE:** Use this procedure only where existing modules are not already installed. Where an earlier version of a module is already installed, you perform a migration installation instead, as described in “Installing Siebel Business Applications in a Migration Installation” on page 49.

This task is a step in:
- “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
- “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

**To install Siebel Business Applications in a new installation**

1. Review “Before You Install Siebel Business Applications” on page 26 and “About Installation Tasks for Siebel Business Applications” on page 41 and observe the requirements and recommendations.

For example, if you are installing a Siebel Server that will communicate with an existing configured installation of Siebel Gateway on another computer or operating system instance, then make sure that the Siebel Gateway is running.

2. (AIX only) Verify that the login ID performing the installation has permission to run `slibclean` by asking the administrator to change the permission as follows:

   ```bash
   chmod 6555 /usr/sbin/slibclean
   ```

3. (AIX only) Execute the following command:

   ```bash
   /usr/sbin/slibclean
   ```

4. Log on to the server, using the Siebel service owner account that you recorded in the copy that you made earlier of the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.”
5 Open a new shell, and navigate to the Siebel image location for the current release. Then navigate to the directory where the installer is located. For example, for Oracle Solaris, navigate to \Siebel_Image\Solaris\Server\Siebel_Enterprise_Server\Disk1\install.

In this path, Siebel_Image is the directory for your version-specific Siebel network image, such as /Siebel_Install_Image/17.0.0.0.

6 Verify the permissions to the directory into which you will install the Siebel Business Applications software. You must have write and execute permission.

7 (AIX only, with IBM DB2 for z/OS) Create a directory DB2_JAR, which is parallel to the directory in which you are installing Siebel Business Applications software. Then copy the file db2jcc_license_cisuz.jar from the DB2 or DB2 client installation into this directory. For more information, see http://www-01.ibm.com/support/docview.wss?uid=swg21191319

8 To start the Siebel Enterprise Server installer, enter the following command:

   ./runInstaller -invPtrLoc inventory_location

In this command, inventory_location is the full path of the oraInst.loc file (for example, /export/home/oraInst.loc), which points to the OUI inventory location. Use the -invPtrLoc option if you want to specify an inventory pointer file other than the default.

Optionally, for an unattended installation, you can append the flags described in "Installing Siebel Business Applications in Unattended Mode" on page 54.

The Select Installation Task screen appears. The New Installation task is selected by default.

9 To perform a new installation of Siebel Business Applications software where no existing installation of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x is present, click Next.

The New Installation Details screen appears.

10 Specify the installation location, and then click Next. (Note the installation location for future reference.)

You might specify an installation path for a new installation like /Siebel, /Siebel_SES, /Siebel_AI, or a similar value. Accept the default path or specify a different fully qualified path by typing it directly or by clicking Browse. If you have an existing installation, then you must specify a new path for the new installation. For more information about installation path requirements, see “File and Directory Naming Conventions” on page 297.

The Select Components screen appears.

11 Select the Siebel Enterprise Server components that you want to install. Choose one or more of the following options, as allowed or as appropriate for your deployment, and click Next:

- Application Interface
- Gateway
- Siebel Server
- EAI Connector (optional)
Installing Siebel Business Applications Server Modules

- Database Configuration Utilities (install with the first Siebel Server)
- Enterprise Cache (optional)
- Constraint Engine (optional, available as a developer preview)

For more information about installing these modules, see "About Installation Tasks for Siebel Business Applications" on page 41. See also Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications.”

The specific screens that appear in the installer depend on the components that you are installing.

The Select Languages screen appears.

12 Select the languages that you want to install, and click Next. You must select at least one language in order to proceed.

All of the languages that were included in the Siebel network image for Siebel Enterprise Server are available for selection. To select a language, you click the name of the language in the Available box and then use the arrow controls to move it into the Selected box.

You specify languages to install in order to run Siebel Business Applications using these languages. The files that are specific to the languages chosen in this step will be copied to your computer.

If you install the software with a single language, then this language serves as the primary (base) language, in which your server messages and log files will display. If you install the software with multiple languages, then when you configure the Siebel Server or the Siebel Application Interface, you can specify which installed languages to deploy and which installed language is the primary language.

For the Siebel Application Interface, you must install and deploy the superset of all of the languages required by the Application Object Manager components that connect to it.

**NOTE:** You can add languages to an existing installation by running the installer in unattended mode (silent mode). For more information about installing and deploying languages, see "Installing and Deploying Siebel Business Applications with Multiple Languages" on page 163.

The Application Container Port Configuration screen appears. This screen applies to all installable components except EAI Connector and Database Configuration Utilities.

13 Specify port numbers, and click Next. Specify the following:

- **HTTPS Redirect Port** (default: 443, or example: 9011). Used for secure HTTPS connections to the application container, which can include connections redirected from the HTTP port.
- **HTTP Connection Port** (default: 8080, or example: 9012). Incoming connections on the HTTP port are redirected to the secure HTTPS port.
- **Shutdown Port** (default: 8005, or example: 9013). Used for management purposes by Siebel CRM, for local use only.
Specifying these port numbers allows the application containers and other parts of the configuration framework to work together during and after the configuration and deployment tasks you perform using Siebel Management Console. The port numbers must be unique on each installation computer or operating system instance. See also Chapter 4, “Configuring Siebel Business Applications Server Modules.”

If you are installing Siebel Application Interface, then the Application Interface Authentication screen appears.

14 Specify the appropriate authentication settings for initial access to Siebel Management Console, and click Next.

- **User Name.** Specify the user name to use when you first log in to Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

- **Password.** Specify the password for this user name.

- **Confirm Password**

**NOTE:** You use the credentials specified here when you first log in to Siebel Management Console, after installation. These credentials, which are stored in the applicationinterface.properties file, are valid only before you set up security for the Siebel Gateway. Once you have configured security for the Siebel Gateway, you must log into Siebel Management Console again with valid credentials for the specified authentication method.

The Client Authentication screen appears. This screen appears if you are installing Siebel Gateway, Siebel Server, Siebel Application Interface, Siebel Enterprise Cache, or Siebel Constraint Engine.

15 Specify information that supports secure communications for the installed software. Specify the following:

- **Keystore Name.** Specify a file (such as a JKS file) you have generated that will serve as the keystore.

- **Truststore Name.** Specify a file (such as a JKS file) you have generated that will serve as the truststore.

- **Password.** Specify the password for the specified keystore and truststore files.

- **Confirm Password**

**NOTE:** The keystore and truststore files are Java files containing certificates. These files are necessary for the application container to use secure two-way communications when connecting with other Siebel modules, as occurs during Siebel Management Console configuration and in normal operation. These files must contain the server certificate chain and an imported CA certificate. Generate your files so that the keystore file references both the private key and the public key, while the truststore file references the public key only. Specify the password that was previously configured to open the certificate files. Use the same password for the keystore and truststore files. Use fully qualified domain names rather than IP addresses. If you do not configure these files correctly, then you will not be able to configure the Siebel Business Applications, as described in Chapter 4, “Configuring Siebel Business Applications Server Modules.” See also Siebel Security Guide.

If you are installing Siebel Gateway, then the Gateway Port Configuration screen appears.
16 Specify the TLS port number for the Siebel Gateway (default: 2320, or example: 9014).

This port number is used for internal purposes, to provide access to the Siebel Gateway. You also include this port number when you specify the Siebel Gateway in the command to run srvrmgr.

If you are installing Siebel Constraint Engine, then the Constraint Engine Port Configuration screen appears.

17 Specify the TLS port number for the Siebel Constraint Engine (example: 9115).

This port number is used for internal purposes, to provide access to the Siebel Constraint Engine.

The Summary screen appears.

18 In the Summary screen, review the information presented.

This screen displays the location where the Siebel Business Applications software will be installed. Before you proceed, confirm that you have met all of the installation requirements, such as for disk space. Then do one of the following:

- To begin installing the Siebel Business Applications software, click Install. You can also click Install after saving a response file.

- To save a response file to use for an unattended installation later, click Save Response File, and then save the file from the dialog box that appears. If you are not also installing at this time, then click Cancel after you save the response file. For information about performing unattended installations, see “Installing Siebel Business Applications in Unattended Mode” on page 54.

The Installation Progress screen appears. The Siebel Business Applications software is installed into the directory that you specified in Step 10 on page 45.

**NOTE:** For future reference, note that the Oracle Home Name is defined based on the installation directory. For example, for an installation directory of C:\Siebel, the Oracle Home Name is Siebel_Home_c_Siebel.

19 When the Next button becomes available, the installation is complete. Click Next.

The Finish Installation screen appears. This screen indicates whether the installation was successful and shows the location of the installer log file. You can access this file to review the installation results.

20 To close the installer, click Close.

This new installation of Siebel Business Applications is now finished. If you installed Database Configuration Utilities, then the shortcut for the Database Configuration Wizard is created in the program folder, which is created using a generated name.

21 After installing the Siebel Business Applications software:

- Verify the installed software, as described in “Verifying Installation for Siebel Business Applications” on page 217.

- Install the latest Siebel Patchset release, where available. Then verify the installation again.

- Install additional Siebel Business Applications server modules.
After all of the installations are complete, configure the installed Siebel Business Applications software, as described in Chapter 4, "Configuring Siebel Business Applications Server Modules." You must observe requirements for configuration sequence.

Perform any additional postinstallation steps, as described in Chapter 6, "Additional Postinstallation and Configuration Tasks."

22 Repeat this procedure, modifying selections as appropriate, on each computer or operating system instance where you are installing Siebel Business Applications server modules.

Installing Siebel Business Applications in a Migration Installation

Use the following procedure to install Siebel Business Applications server modules in a migration installation for Siebel CRM version 17.0.

NOTE: Use this procedure only when an earlier version of Siebel Business Applications server modules is already installed (Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x). Otherwise, you must follow the steps in "Installing Siebel Business Applications in a New Installation" on page 44 instead.

During a migration installation, the original Siebel Business Applications installation directory is renamed from Original Name to Original Name_pre17.0. For example, if the original installation directory name was ses or sweapp, then this directory is renamed to ses_pre17.0 or sweapp_pre17.0. The new installation directory is named Original Name, such as ses or sweapp. Retain the original installation directory, in case you choose to perform a rollback uninstallation later. For more information, see "Rolling Back the Siebel Enterprise Server" on page 266.

For more information about migration installations, see "About Installation Tasks for Siebel Business Applications" on page 41.

NOTE: If you need to add any components that were not present in your original installation, including new components, then you must install them as a new installation, as described in "Installing Siebel Business Applications in a New Installation" on page 44.

This topic is part of "Installing Siebel Business Applications" on page 43.

This task is a step in "Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)" on page 33.

CAUTION: You must perform the migration installation for Siebel Application Interface before you perform the migration installations for any other Siebel Business Applications server modules. Otherwise, the migrations will not complete successfully.

To install Siebel Business Applications in a migration installation

1 Review "Before You Install Siebel Business Applications” on page 26 and "About Installation Tasks for Siebel Business Applications” on page 41 and observe the requirements and recommendations.
2 Perform any premigration tasks that might be necessary, as noted in "Additional Tasks for Migration Installations" on page 57.

**CAUTION:** For example, you must remove the existing configuration for the SWSE before you install Siebel Application Interface for the current release as a migration installation. If you are using data encryption, then you must back up the original key file.

If you are installing a Siebel Server that will communicate with an existing configured installation of Siebel Gateway on another computer or operating system instance, then make sure that the Siebel Gateway is running.

3 (Optional) Shut down the Siebel CRM modules to be updated on this computer.

For example, stop any services (for the existing installed instance of a prior version) for the Siebel Gateway Name Server, Siebel Server, Siebel Management Agent, or Oracle Configuration Manager. Also shut down any running instances of the Siebel Server Manager (srvrmgr). If you do not shut down these services, then the installer shuts them down.

**NOTE:** Siebel Management Agent and Oracle Configuration Manager are not installed or supported in the current Siebel CRM release.

4 For a migration installation of Siebel Application Interface, stop the Web server for the existing installation of SWSE by running one of the following commands:

- `ompnnctl stopall` – for Oracle HTTP Server (on supported Linux operating systems)
- `stopapa` – for other Apache-based Web servers (on supported operating systems)
- `stop` – for Oracle iPlanet Web Server (on Oracle Solaris)

5 (AIX only) Verify that the login ID performing the installation has permission to run `slibclean` by asking the administrator to change the permission as follows:

```
chmod 6555 /usr/sbin/slibclean
```

6 (AIX only) Execute the following command:

```
/usr/sbin/slibclean
```

7 Log on to the server, using the Siebel service owner account that you recorded in the copy that you made earlier of the worksheet in Appendix A, "Siebel Deployment Planning Worksheet."

8 Open a new shell, and navigate to the Siebel image location for the current release. Then navigate to the directory where the installer is located. For example, for Oracle Solaris, navigate to `/Siebel_Image/Solaris/Server/Siebel_Enterprise_Server/Disk1/install`.

In this path, `Siebel_Image` is the directory for your version-specific Siebel network image, such as `/Siebel_Install_Image/17.0.0.0`.

9 Verify the permissions to the directory into which you will install the Siebel Business Applications software. You must have write and execute permission.

**NOTE:** You must perform the migration installation of Siebel Application Interface before you migrate other modules, such as Siebel Gateway or Siebel Server.
10 (AIX only, with IBM DB2 for z/OS) Create a directory DB2_JAR, which is parallel to the directory in which you are installing Siebel Business Applications software (the existing installation directory). Then copy the file db2jcc_license_cisuz.jar from the DB2 or DB2 client installation into this directory. For more information, see http://www-01.ibm.com/support/docview.wss?uid=swg21191319

11 Before you run the Siebel Enterprise Server installer to perform the migration installation of a Siebel module, run the following command:

```
module -debug -silent -attachhome ORACLE_HOME_NAME=Oracle_Home_Name
ORACLE_HOME=Oracle_Home
```

For example, you might enter a command like this, depending on the Oracle home name for the module you are installing and on the original installation directory:

```
module -debug -silent -attachhome ORACLE_HOME_NAME=SES_HOME
ORACLE_HOME=/Siebel/ses
```

12 To start the Siebel Enterprise Server installer (to install any of the modules listed at the start of “Installing Siebel Business Applications” on page 43), enter the following command:

```
./runInstaller -invPtrLoc inventory_location
```

In this command, inventory_location is the full path of the oraInst.loc file (for example, /export/home/oraInst.loc), which points to the OUI inventory location. Use the -invPtrLoc option if you want to specify an inventory pointer file other than the default.

Optionally, for an unattended installation, you can append the flags described in "Installing Siebel Business Applications in Unattended Mode" on page 54.

The Select Installation Task screen appears.

13 To perform a migration installation of the Siebel Business Applications software where an existing prior installation of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x is present, choose Migration Installation, and click Next.

The Installation Migration Details screen appears.

14 Confirm or select the name and location of your existing installation, and then click Next. Do the following:

- Confirm the existing installation name, or select it from the drop-down list.
- Confirm the existing installation location, or select it from the drop-down list. For more information about Oracle home and installation path requirements, see “File and Directory Naming Conventions” on page 297.

The Application Container Port Configuration screen appears. This screen applies to all installable components except EAI Connector and Database Configuration Utilities.

15 Specify port numbers, and click Next. Specify the following:

- **HTTPS Redirect Port** (default: 443, or example: 9011). Used for secure HTTPS connections to the application container, which can include connections redirected from the HTTP port.
- **HTTP Connection Port** (default: 8080, or example: 9012). Incoming connections on the HTTP port are redirected to the secure HTTPS port.
Installing Siebel Business Applications Server Modules

- **Shutdown Port** (default: 8005, or example: 9013). Used for management purposes by Siebel CRM, for local use only.

Specifying these port numbers allows the application containers and other parts of the configuration framework to work together during and after the configuration and deployment tasks you perform using Siebel Management Console. The port numbers must be unique on each installation computer or operating system instance. See also Chapter 4, "Configuring Siebel Business Applications Server Modules."

The Client Authentication screen appears. This screen appears if you are installing Siebel Gateway, Siebel Server, or Siebel Application Interface.

16 Specify information that supports secure communications for the installed software. Specify the following:

- **Keystore Name.** Specify a file (such as a JKS file) you have generated that will serve as the keystore
- **Truststore Name.** Specify a file (such as a JKS file) you have generated that will serve as the truststore.
- **Password.** Specify the password for the specified keystore and truststore files.
- **Confirm Password**

**NOTE:** The keystore and truststore files are Java files containing certificates. These files are necessary for the application container to use secure two-way communications when connecting with other Siebel modules, as occurs during Siebel Management Console configuration and in normal operation. These files must contain the server certificate chain and an imported CA certificate. Generate your files so that the keystore file references both the private key and the public key, while the truststore file references the public key only. Specify the password that was previously configured to open the certificate files. Use the same password for the keystore and truststore files. If you do not configure these files correctly, then you will not be able to configure the Siebel Business Applications, as described in Chapter 4, "Configuring Siebel Business Applications Server Modules." See also Siebel Security Guide.

If you are migrating an installation of Siebel Gateway, then the Gateway Port Configuration screen appears.

17 Specify the TLS port number for the existing installation of Siebel Gateway Name Server (default: 2320, or example: 9014).

**CAUTION:** The TLS port number for a migration installation must be the port number on which the Siebel Gateway Name Server was configured in the prior installation. Failing to enter the right port will result in failure of the migration installation.

The Summary screen appears.

18 In the Summary screen, review the information presented.

This screen displays the location where the Siebel Business Applications software will be installed. Before you proceed, confirm that you have met all of the installation requirements, such as for disk space. Then do one of the following:

- To begin installing the Siebel Business Applications software, click Install. You can also click Install after saving a response file.
To save a response file to use for an unattended installation later, click Save Response File, and then save the file from the dialog box that appears. If you are not also installing at this time, then click Cancel after you save the response file. For information about performing unattended installations, see “Installing Siebel Business Applications in Unattended Mode” on page 54.

The Installation Progress screen appears. The Siebel Business Applications software is installed into the directory that you specified in Step 14 on page 51.

19 When the Next button becomes available, this installation is complete. Click Next.

The Finish Installation screen appears. This screen indicates whether the installation was successful and shows the location of the installer log file. You can access this file to review the installation results. This screen also shows the new location of the original installation, which the installer moved before it performed the new installation.

20 Review the report that is generated about any conflicts between your customized files and the files that are delivered by the Siebel Enterprise Server installer. As needed, copy any applicable customized files from the original installation to the new migrated installation.

Conflicts are identified in the file overwrittenfiles_timestamp.log, which is created in the ORACLE_HOME/cfgtoollogs/oui directory (in the new migrated installation).

21 To close the installer, click Close.

This migration installation of Siebel Business Applications is now finished.

After the migration process is complete, the installer starts applicable services, such as for the Siebel Gateway and Siebel Server. Note that the software that runs is part of the new installation you are migrating to, not part of the original installation.

22 After installing the Siebel Business Applications software:

- Verify the installed software, as described in “Verifying Installation for Siebel Business Applications” on page 217.

- Install the latest Siebel Patchset release, where available. Then verify the installation again.

- After all of the migration installations are complete, configure the Siebel Application Interface, as described in Chapter 4, “Configuring Siebel Business Applications Server Modules.”

- Perform any additional postinstallation steps, as described in Chapter 6, “Additional Postinstallation and Configuration Tasks.” See also “Additional Tasks for Migration Installations” on page 57.

23 Repeat this procedure, modifying selections as appropriate, on each computer or operating system instance with a Siebel Business Applications installation to be migrated.
Installing Siebel Business Applications in Unattended Mode

The Siebel Enterprise Server installer supports an optional *unattended installation*, which is an installation that has been preconfigured to require no user input when the installation program runs. You can save a response file in a regular installer session. Then you can run the installer at the command line with certain flags appended to the installer command to execute the response file. Together, these tasks constitute installing in unattended mode.

You can perform unattended installations for better performance when installing software on multiple server computers. Or, you might perform unattended installations if user input during an installation is not allowed in your environment, as might be the case in some secure environments. An unattended installation prepackages all of the required parameters so that you only have to execute a command to perform the installation.

You can use unattended mode to perform a new installation or migration installation of the current release, or to add languages to an existing installation of the current release. To add languages, you must use this method.

**CAUTION:** Unattended installations provide no direct feedback or error notification. Therefore, you must test your settings in a development environment before system-wide deployment in a production environment. It is strongly recommended that you become thoroughly familiar with GUI installation and configuration for any Siebel modules for which you intend to perform unattended installation or configuration.

This topic contains the following information:

- “Guidelines for Installing Servers in Unattended Mode” on page 55
- “Saving an Installation Response File” on page 55
- “Editing an Oracle-Provided Installation Response File” on page 56
- “Performing an Installation in Unattended Mode” on page 56

**Related Topics**

- “About Installation Tasks for Siebel Business Applications” on page 41
- “Installing Siebel Business Applications” on page 43
- “About Configuring Siebel Business Applications” on page 63
- “Installing and Deploying Additional Languages” on page 171
- “Verifying Installation for Siebel Business Applications” on page 217

Chapter 10, “Requirements for Installing and Configuring Siebel Business Applications”
Guidelines for Installing Servers in Unattended Mode

Review the following guidelines for installing Siebel Enterprise Server or Siebel Application Interface in unattended mode:

- **Keep track of the response file results.** Because the unattended installation session is controlled by the response file, you must keep careful track of the result each response file will yield when you perform an unattended installation.

  For example, depending on your selections when you generated a response file for Siebel Enterprise Server, the unattended installation performed with this file might install one or more of the following Siebel Business Applications server modules (subject to restrictions on installing modules together): Siebel Gateway, Siebel Server, Siebel Database Configuration Utilities, Siebel Enterprise Cache, EAI Connector, or Siebel Application Interface.

- **Create the response file on a computer similar to the target computer.** When you run the installer as described in "Saving an Installation Response File" on page 55, installer validations are done as if you were performing a real installation. It is strongly recommended that you run the installer on a computer that has similar resources and configuration settings as the target computer on which the installation will be performed, as described in "Performing an Installation in Unattended Mode" on page 56. Unattended installations must meet all of the documented requirements, including those described in "About Installation Tasks for Siebel Business Applications" on page 41 and in Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications.”

- **Validate the installation.** Validate each installation after it has completed, as described in "Verifying Installation for Siebel Business Applications" on page 217.

To install Siebel Business Applications server modules and the specified Siebel language packs using unattended mode, perform the following tasks:

- "Saving an Installation Response File" on page 55
- "Editing an Oracle-Provided Installation Response File” on page 56
- "Performing an Installation in Unattended Mode” on page 56

**Saving an Installation Response File**

Perform the following steps to save an installation response file to be used in an unattended installation of Siebel Business Applications server modules.

**NOTE:** If you are adding languages to an existing installation of the current release, then do not use this procedure. Instead, follow the procedure in "Editing an Oracle-Provided Installation Response File” on page 56.

**To save an installation response file**

1. Navigate to the Siebel image location where the installer is located.

2. Start the Siebel Enterprise Server installer.

   For information about starting this installer, see "About Installation Tasks for Siebel Business Applications” on page 41 and “Installing Siebel Business Applications” on page 43.
Installing Siebel Business Applications Server Modules

Installing Siebel Business Applications in Unattended Mode

3 Provide input to the installer wizard, as in a normal GUI installation.

4 In the Summary screen, click Save Response File.

5 Specify the location of the response file, for example, `/usr/tmp/sesinstall.rsp`, and save the file.

   A response file is generated that includes data that is derived from the input that you made during the installer session.

6 After the response file is saved, click Cancel.

   The installer session ends.

   In addition to saving the response file at the location that you specified at the command line, the installer creates the Siebel installation directory at the location that you specified in the installer session (for example, `/usr/tmp/sesinstall.rsp`). Although the Siebel module is not installed (because you clicked Cancel), this directory contains a subdirectory called `inventory`, which includes information about the product inventory.

   See “Performing an Installation in Unattended Mode” on page 56 for information about performing a Siebel Enterprise Server or Siebel Application Interface installation in unattended mode, using the response file that you just generated.

Editing an Oracle-Provided Installation Response File

If you are adding languages to an existing Siebel Business Applications installation, then you must edit an Oracle-provided installation response file instead of saving a response file from the installer.

For detailed information about the task of adding languages, see “Installing and Deploying Additional Languages” on page 171.

Performing an Installation in Unattended Mode

Perform the following steps to perform an unattended installation of Siebel Business Applications server modules.

First, you must save an installation response file as described in “Saving an Installation Response File” on page 55 or prepare an installation response file for adding languages as described in “Editing an Oracle-Provided Installation Response File” on page 56. Then you run the installer command as shown in the following procedure. For detailed information about the task of adding languages, see “Installing and Deploying Additional Languages” on page 171.

To perform an installation in unattended mode

1 (For add language operations only) Uninstall any Siebel Patchset release that you have installed on top of the current release, for each installed Siebel module for which you are adding languages.

2 Navigate to the Siebel image location where the installer is located.
3. Place the response file that you previously generated or edited into the correct Siebel image
directory for the Siebel module (where the installer program is located), so that the file can be
read when you run the installer.

**NOTE:** Always back up any existing valid response file before replacing it with a new file.

4. Open a new shell.

5. Run a command like the following to start the installer to install Siebel Enterprise Server or Siebel
Application Interface:

```
./runInstaller -silent -responseFile path_to_installation_response_file -invPtrLoc inventory_location
```

where:

- `path_to_installation_response_file` is the full path and name of a response file to be executed
  (for example, `/usr/tmp/sesinstall.rsp`).
- `inventory_location` is the full path of the `oraInst.loc` file (for example, `/export/home/oraInst.loc`),
  which points to the OUI inventory location. Use the `-invPtrLoc` option if you want
to specify an inventory pointer file other than the default.

This command runs the installer in unattended mode and specifies the location of the response
file to be executed. No installer screens are displayed, and no further user input is prompted for
after the installer starts. The installation result depends on the content of the specified response
file.

6. Validate the installation after it has completed.

   For more information, see “Verifying Installation for Siebel Business Applications” on page 217.

7. (For add language operations only) Reinstall any previously installed Siebel Patchset release that
   you uninstalled in Step 1 on page 56. Then validate the installation again.

### Additional Tasks for Migration Installations

Certain product changes that were made in Siebel Innovation Pack 2017 (or in prior releases) can
affect migration installations for existing customers. All customers performing migration installations
must review the information in this topic before installing, to make sure that they can successfully
migrate all custom files and settings to the current release and to avoid any of the issues described
here. Some migration tasks previously documented for Siebel Innovation Pack 2016 might not need
to be done again for customers migrating from that release.

These product changes affect some of the files and directories of installations of Siebel Server, Siebel
Application Interface, Siebel Web Client, and Siebel Tools. Also affected are some of the configuration
settings for these modules. Many of the product changes described in this topic were made as part
of consolidating support for Siebel Open UI and desupporting high interactivity and standard
interactivity.
This topic describes specific product changes, describes how these changes might affect migration installations, and provides steps you can take to avoid any issues and complete the migration successfully. Some of the tasks you perform before installation, but most of them you would perform after installation. Additional migration considerations are also provided.

**Migration Issues and Solutions in Siebel Innovation Pack 2017**

Many product and support changes for Siebel Innovation Pack 2017 (and other recent releases) make it necessary for you to perform certain migration-related tasks. Issues and possible solutions are provided for some items. Review all items before proceeding. This list is not comprehensive. Many of the tasks are interrelated and are not necessarily presented in the order in which you would perform them. Various dependencies apply that might not be fully explained. Some of these issues apply only to migrations from releases prior to Siebel Innovation Pack 2016.

- **Synchronize local databases before migrating or doing other premigration tasks.** Siebel Mobile Web Client users might need to synchronize their local database changes with the server, through Siebel Remote, as described in *Siebel Remote and Replication Manager Administration Guide*. Or, Siebel Tools developer users might need to check in any changes made to objects in the existing local database, as described in *Using Siebel Tools*.

- **Remove the Siebel Web Server Extension (SWSE) configuration before migrating, and then configure Siebel Application Interface after migrating.** In Siebel Innovation Pack 2016, the virtual directories, which formerly mapped to `public/lang_code` (such as ENU), were mapped directly to `public`. In Siebel Innovation Pack 2017, virtual directories are replaced by application configurations, which now map to `applicationcontainer/webapps/siebel` in the Siebel Application Interface installation. When you install the Siebel Application Interface as a migration installation, the existing virtual directories on the Web server that were configured for SWSE in a prior release are not migrated. After all of the migration installations are complete, you must configure the Siebel Application Interface to create the application configurations. For more information, see "About Installation Tasks for Siebel Business Applications" on page 41 and "About Configuring Siebel Business Applications" on page 63.

  **CAUTION:** You must remove the configuration for the SWSE before you install the current release as a migration installation, as described in "Process of Removing Configuration Data" on page 261.

- **When data encryption is enabled, you must back up the original key file (keyfile.bin) before performing a migration installation for Siebel Enterprise Server, and then copy it back after migrating.** For more information, see "General Requirements for Installing and Configuring Siebel Enterprise Server Components" on page 306.

  **CAUTION:** If data migration is enabled, then the migration installation overwrites your existing key file. If you have not backed up your existing key file and copied it back after the migration, then the encrypted columns will be inaccessible after the migration.

- **Preserve premigration installation.** You might want to preserve your premigration installations, in case you need to roll back to your prior version after doing the migration installations and making the manual migration changes described here. It is recommended that you manage your migration tasks to make sure that you have not permanently deleted, moved, or renamed files or directories in these installations. Also keep track of changed requirements, so that you can restore the overall environment if you roll back. Additional requirements apply for rollbacks. For more information, see Chapter 9, "Uninstalling Siebel Business Applications."
Move files and directories or delete unnecessary files. Depending on the release you are migrating from and on your requirements, you might need to copy some files or directories from your existing installation into your new migrated installation, or you might need to delete some unnecessary files and directories from your new migrated installation. For example:

The webtempl directory on Siebel Server. As of Siebel Innovation Pack 2017, the SIEBSRVR_ROOT/webtempl directory is not part of the Siebel Server installation and is not migrated. The Siebel Web templates are now located in the Siebel database. Custom Siebel Web templates for Siebel Open UI migrate into the database when you run Incremental Repository Merge, as described in Siebel Database Upgrade Guide.

In order for this migration to succeed, you must copy all of the applicable custom Siebel Web template files into a directory. Then, when you run Incremental Repository Merge and the Database Configuration Wizard prompts for the Web Templates Directory, specify this new directory location.

- If you are migrating from Siebel Innovation Pack 2016, then the applicable Siebel Web template files to copy are those located in the SIEBSRVR_ROOT/webtempl/custom subdirectory in your prior installation.
- If you are migrating from a release prior to Siebel Innovation Pack 2016, then the applicable Siebel Web template files to copy are those located in the SIEBSRVR_ROOT/webtemploui/global/webtempl/customer subdirectory in your prior installation.

For Siebel Web Client and Siebel Tools installations, the webtempl directory has also been removed and Siebel Web templates are now provided in the local database and the sample database. A newly extracted local database also includes your custom Siebel Web templates.

The webmaster directory on Siebel Server. As of Siebel Innovation Pack 2016, the SIEBSRVR_ROOT/webmaster directory on the Siebel Server has been removed. If you are migrating from a release prior to Siebel Innovation Pack 2016, then you can delete this directory from your migrated Siebel Server installation.

The public directory on Siebel Web Server Extension. In Siebel Innovation Pack 2017, the SWSE_ROOT/public directory is not part of the Siebel Application Interface installation. The equivalent location is SIEBEL_AI_ROOT/applicationcontainer/webapps/siebel. For the current release, files and directories are not automatically migrated for Siebel Application Interface. If you require any of the files from the public directory in your prior installation of SWSE, then you can copy them manually after completing installation and configuration tasks.

Before you copy files, you must take into account the following changes that occurred in the structure of the public directory in Siebel Innovation Pack 2016:

- public/lang_code/build_number, where lang_code is an installed Siebel language (such as ENU) and build_number is one of the build numbers for the installed Siebel software. The applet subdirectory has been removed. The scripts subdirectory has moved under public. And the build_number directory has been removed.
- public/lang_code/files. This directory has moved under public.
- public/lang_code/fonts. This directory has moved under public.
- public/lang_code/htmltemplates. This directory has moved under public.
- public/lang_code/images. This directory has moved under public.
Installing Siebel Business Applications Server Modules ▪ Additional Tasks for Migration Installations

- public/lang_code/webeditor. This directory has been removed.
- public/lang_code/default.htm. This file has moved under public.
- public/lang_code/blank.htm. This file has moved under public.
- public/lang_code/wait.htm. This file has been removed.
- public/lang_code/*.pcd. These files have been removed.
- public/lang_code/*.manifest. The variable string %BuildNumber% has been removed from the .tmanifest files, from which the .manifest files are generated.

**NOTE:** In Siebel Innovation Pack 2017, the Siebel application virtual directories, which formerly mapped to the public/lang_code directory on SWSE, are obsolete. Instead, the application configurations for Siebel Application Interface map to SIEBEL_AI_ROOT/applicationcontainer/webapps/siebel (without the lang_code element).

Move files and directories: Files and directories on Siebel Web Client and Siebel Tools have changed relative to equivalent locations for releases prior to Siebel Innovation Pack 2016. Similar changes apply for migration installations of Siebel Web Client and Siebel Tools, as described above for migration installations of Siebel Application Interface. However, the files are copied into the new migration installations of Siebel Tools. Note also that Siebel Web Client still uses the public directory, as in Siebel Innovation Pack 2016.

**Issue (for migrations from release prior to Siebel Innovation Pack 2016).** After a migration installation of Siebel Web Client or Siebel Tools (from a release prior to Siebel Innovation Pack 2016), duplicate directories will exist, because some of the directories will be in new locations relative to those seen for the files and directories that migrated from the prior release. Your custom files will be in the wrong locations and cannot be used until you have moved them to the new locations.

**Solution.** Reorganize the files and directories in SIEBEL_CLIENT_ROOT\public and SIEBEL_TOOLS_ROOT\public on the migrated installations to incorporate the migrated custom files that you require and to conform to the changes described earlier in this topic for Siebel Application Interface. Finally, remove all extraneous files and directories in SIEBEL_CLIENT_ROOT\public and SIEBEL_TOOLS_ROOT\public.

Upgrade the database client. In a migration installation case, after migrating, you must make sure that a supported version of the database client software is installed for use with Siebel Innovation Pack 2017, as noted in the Certifications tab on My Oracle Support. You might also need to update the database client installation path in the defined environment variables. For more information, see “About Configuring Siebel Business Applications” on page 63.

Using Oracle Database XE for Siebel Mobile Web Client or Siebel Tools requires a supported version of the Oracle Database Client, as noted in ”Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.
■ **Edit configuration files for Siebel Web Client.** After doing a migration installation for Siebel Web Client from Siebel Innovation Pack 2016 or from a release prior to Siebel Innovation Pack 2016, you might need to edit all applicable migrated configuration files, such as uagent.cfg for Siebel Call Center. For example:

For a migration from a release prior to Siebel Innovation Pack 2016, in the [Siebel] section of each applicable configuration file, the existing WebClientSiteDir parameter value will include a language element, which is no longer needed. For example, for a value like `C:\Siebel\Client\public\enu`, update the parameter value to `C:\Siebel\Client\public`.

■ **Remove obsolete parameters.** Several parameters for server components or in configuration files are now obsolete in Siebel Innovation Pack 2017. To reduce confusion after migration installations, you might choose to delete some of the parameters that no longer apply, such as `HighInteractivity` and `EnableOpenUI` (which are obsolete as of Siebel Innovation Pack 2016). For more information about obsolete parameters, see *Siebel System Administration Guide*.

■ **Reset passwords on the Siebel Gateway and on the Siebel Server.** After doing a migration installation of Siebel Innovation Pack 2017 (from a release prior to Siebel Innovation Pack 2016), you must reset any passwords on the Siebel Gateway that were previously encrypted using encryption other than AES. In the current release, such passwords are encrypted using AES. For more information about reencrypting these passwords, see *Siebel Security Guide*. Furthermore, the Siebel Server system service and server components do not work after a migration installation until you have updated them to use AES password encryption. Make these changes in coordination, as described in “Updating the Siebel Server System Service and Server Components to Use AES Password Encryption” on page 61.

### Updating the Siebel Server System Service and Server Components to Use AES Password Encryption

The Siebel Server system service and server components do not work after a migration installation until you have performed steps to update them to use AES password encryption, as described in the following procedure. Most of the command examples in the procedure are for UNIX operating systems, but the same issue applies on Microsoft Windows.

*To update the Siebel Server system service and server components to use AES password encryption*

1. Unset any SIEBEL* environment variables.

2. Source the siebenv script from the Siebel Gateway installation directory, as follows:
   ```bash
   ./siebenv.sh
   ``

3. Start the Siebel Gateway and make sure that it is running.

4. Write down the old encrypted password from the current siebs.dat file. For example:

   ```
   [\enterprises\esi\parameters\Password]
   Persistence=full
   Type=string
   Value="9ntkU0Uf"
   Length=16
   ```
5. Run a command like the following, using the old encrypted password value:

```
$SIEBEL_ROOT/siebsrvr/lib/spu 9ntkUOUf
```

This command obtains a reencrypted value for the password, such as in the following output:

```
ENPVR6S/HKgBncoAAA==
```

6. Delete the current svc* and osdf* files from the $SIEBSRVR_ROOT/sys directory.

7. Source the siebenv script from the $SIEBSRVR_ROOT directory.

8. Change directory to the $SIEBSRVR_ROOT/bin directory and then run a command like the following:

```
siebctl -S siebsrvr -i esia81:srvr1 -a -g "-g localhost:2320 -e esia81 -s srvr1 -u SADMIN -ep ENPVR6S/HKgBncoAAA=="
```

Note that the new encrypted string from Step 5 on page 62 is used.

9. Run the following command using the old encrypted password value, like the following:

```
$SIEBEL_ROOT/siebsrvr/lib/gpu -g localhost:2320 -e esia81 -u SADMIN -p 9ntkUOUf
```

10. Customers who have overridden the user name or password at the component definition level must change the passwords again through srvrmgr in order to use the new encrypted password value. For example:

```
change param password=<pwd_value> for compdef <comp_name>
```

```
change param password=<pwd_value> for comp <comp_name> server <server_name>
```

11. Update old encrypted passwords on the Siebel Gateway to use AES encryption.

   For more information, see Siebel Security Guide.

12. Restart both the Siebel Gateway and the Siebel Server.

Related Topics

"About Installation Tasks for Siebel Business Applications” on page 41

"About Configuring Siebel Business Applications” on page 63

“About Installing the Siebel Web Client or Siebel Tools” on page 179

“Installing and Using Oracle Database XE for the Local or Sample Database” on page 195

Chapter 9, “Uninstalling Siebel Business Applications”

“Process of Removing Configuration Data” on page 261
This chapter explains how to use Siebel Management Console to configure all of the components that you can install using the Siebel Enterprise Server installer. It includes the following topics:

- About Configuring Siebel Business Applications on page 63
- Running the Siebel Management Console on page 67
- Installing the Siebel Database on page 74
- Configuring the Siebel Gateway and Security on page 74
- Configuring the Siebel Enterprise on page 84
- Configuring the Siebel Server on page 89
- Configuring the Siebel Application Interface on page 95
- Configuring the Siebel Enterprise Cache on page 106
- Configuring the Siebel Constraint Engine on page 117
- Configuring the Siebel Migration Application on page 120

## About Configuring Siebel Business Applications

After performing a new installation of Siebel Enterprise Server components or Siebel Application Interface, you must configure the appropriate modules by using the Siebel Management Console, as described in this chapter.

The Siebel Management Console supports configuration tasks for the following entities:

- Security
- Siebel Gateway
- Siebel Enterprise
- Siebel Server
- Siebel Application Interface
- Siebel Enterprise Cache Server
- Siebel Enterprise Cache Client
- Siebel Constraint Engine (available as a developer preview)
- Siebel Migration application
In most cases, you perform the configuration in a two-step process for each entity that you are configuring:

- Creating a profile for the type of entity you are configuring
- Deploying the profile into your Siebel deployment

A profile is a collection of configuration settings. You can create as many profiles as you require, and deploy these profiles according to your requirements, as appropriate for your physical installed Siebel software and your authentication methods. You can deploy profiles to multiple installed instances of Siebel Server or Siebel Application Interface, for example.

Most of the configurable entities correspond to physical installed modules (Siebel Gateway, Siebel Server, Siebel Application Interface, Siebel Enterprise Cache, or Siebel Constraint Engine). Some entities are available after installing particular modules (security adapters, for example, and the Siebel Migration application, which is provided with the Siebel Application Interface installation). The Siebel Enterprise is a logical entity that you must deploy for each Siebel deployment.

You must configure and deploy at least the Siebel Gateway, Siebel Enterprise, Siebel Server, and Siebel Application Interface in every Siebel deployment.

If you will be using the Siebel Product Configurator integration with Oracle Advanced Constraint Technology (available as a developer preview), then you must also install, configure, and deploy the Siebel Enterprise Cache and the Siebel Constraint Engine. For more information, see *Siebel Product Administration Guide*.

After you configure the Siebel Gateway, you can create profiles in any sequence. Restrictions apply to the sequence in which you deploy these profiles in your Siebel deployment. In general, the configuration sequence for a new deployment corresponds to the sequence of the configuration topics in this chapter.

**NOTE:** For a migration installation case, you must install Siebel Application Interface first and specify information such as application container port numbers. You then provide some of this data as input for the migration installation of Siebel Gateway, which allows the configurations to be migrated. After the migration installations, you do not configure the Siebel Gateway, Siebel Enterprise, or Siebel Server using the Siebel Management Console. However, you must then configure the Siebel Application Interface. Additional configuration requirements apply for migration installations, as described later in this topic.

You can also use the Siebel Management Console to remove configuration data for deployed entities, which is a necessary part of uninstalling the Siebel Business Applications software. Restrictions apply to the sequence in which you can remove configuration data for deployed modules. For more information, see "Process of Removing Configuration Data" on page 261.

The Siebel Management Console uses the Siebel Gateway registry to store all of the configuration data. Consequently, the first configuration task that you must perform when you run the Siebel Management Console is configuring the Siebel Gateway itself, and its registry. After doing this, you can create and deploy profiles for all of the applicable modules in your Siebel deployment.
Alternatively, to modify some configuration settings for an existing Siebel Enterprise or Siebel Server, or a Siebel Server component, you can use Siebel Server Manager, as described in Siebel System Administration Guide. Depending on the specific updates made, you might have to restart the Siebel Server before the changes take effect. The Siebel Management Console allows you to refresh the configuration data displayed so that it reflects the latest updates for the deployed Siebel Enterprise or Siebel Server.

After configuration, you might want to configure the Siebel system services to start automatically. For more information, see “Configuring the Siebel Gateway for Automatic Start” on page 151 and “Configuring the Siebel Server for Automatic Start” on page 154.

**NOTE:** You cannot operate any Siebel CRM components for your Siebel CRM deployment until you have configured and deployed them. You must be running the Siebel Gateway in order to configure and deploy any other entities.

### Where to Find Configuration Tasks

The configuration tasks for Siebel Business Applications are described in the following locations, as shown in Table 4.

Table 4. Where to Find Configuration Tasks

<table>
<thead>
<tr>
<th>Module to Configure</th>
<th>Where Documented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel database (use Database Configuration Wizard)</td>
<td>“Installing the Siebel Database” on page 74.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> Installation of the Siebel database is still performed using the Database Configuration Wizard.</td>
</tr>
<tr>
<td>Security</td>
<td>“Configuring the Siebel Gateway and Security” on page 74 and Siebel Security Guide</td>
</tr>
<tr>
<td>Siebel Gateway</td>
<td>“Configuring the Siebel Gateway and Security” on page 74</td>
</tr>
<tr>
<td>Siebel Enterprise</td>
<td>“Configuring the Siebel Enterprise” on page 84</td>
</tr>
<tr>
<td>Siebel Server</td>
<td>“Configuring the Siebel Server” on page 89</td>
</tr>
<tr>
<td>Siebel Application Interface</td>
<td>“Configuring the Siebel Application Interface” on page 95</td>
</tr>
<tr>
<td>Siebel Enterprise Cache (server and client)</td>
<td>“Configuring the Siebel Enterprise Cache” on page 106</td>
</tr>
<tr>
<td>Siebel Constraint Engine (available as a developer preview)</td>
<td>“Configuring the Siebel Constraint Engine” on page 117 and Siebel Product Administration Guide</td>
</tr>
<tr>
<td>Siebel Migration application</td>
<td>“Configuring the Siebel Migration Application” on page 120 and Siebel Database Upgrade Guide</td>
</tr>
</tbody>
</table>
Configuration Requirements for Migration Installations

In the current release, the migration installation case has particular requirements that relate to configurations. For your installed Siebel CRM software for a prior release, do the following, in the order shown:

1. Review all relevant documentation. See “Before You Install Siebel Business Applications” on page 26 and “About Installation Tasks for Siebel Business Applications” on page 41.

2. Perform any necessary premigration tasks, as noted in “Additional Tasks for Migration Installations” on page 57.

   **CAUTION:** In particular, you must remove the existing Siebel Web Server Extension (SWSE) configuration on the Web server computer where you installed SWSE for the prior release. Do this before you perform the migration installation of Siebel Application Interface for the current release. Otherwise, the virtual directories cannot be cleaned up adequately. For more information, see “Removing the Siebel Application Interface Configuration” on page 262.

3. Install Siebel Application Interface as a migration installation for your existing installation of SWSE, as described in “Installing Siebel Business Applications in a Migration Installation” on page 49.

4. Install Siebel Enterprise Server as a migration installation, as described in "Installing Siebel Business Applications in a Migration Installation" on page 49.

   **NOTE:** For the Siebel Enterprise Server that includes the Siebel Gateway, when you perform the migration installation, you provide input that configures the Siebel Gateway and allows the existing configurations for the Siebel Enterprise and Siebel Servers to migrate to the new Siebel Gateway.

5. (Optional) Install Siebel Enterprise Server as a new installation, selecting only components that are new in the current release and that you require, as described in “Installing Siebel Business Applications in a New Installation” on page 44. For example:

   - Siebel Enterprise Cache
   - Siebel Constraint Engine (available as a developer preview)

6. Perform any necessary postinstallation tasks, as noted in “Additional Tasks for Migration Installations” on page 57. For example, do the following:

   - Where necessary, upgrade the database client to a supported version for Siebel Innovation Pack 2017. Also update the database client installation path in the defined environment variables.
   - Update files and directories on Siebel Enterprise Server and Siebel Application Interface (where necessary).

7. Run Incremental Repository Merge, as described in *Siebel Database Upgrade Guide*.

8. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67. See also “About Configuring Siebel Business Applications” on page 63.

   - Create a profile for Siebel Application Interface, and then deploy this profile to the installed Siebel Application Interface. For more information, see "Configuring the Siebel Application Interface” on page 95.
Configure any new components that you installed, including those noted in Step 5 on page 66, or the Siebel Migration application.

Related Topics
"Installation-Related Changes for Siebel Innovation Pack 2017" on page 21
Chapter 3, "Installing Siebel Business Applications Server Modules"
"About Installation Tasks for Siebel Business Applications" on page 41
"Additional Tasks for Migration Installations" on page 57
"Running the Siebel Management Console" on page 67
Chapter 5, "Installing the Siebel Database on the RDBMS"
Chapter 6, "Additional Postinstallation and Configuration Tasks"
Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications"
"Process of Removing Configuration Data" on page 261

Running the Siebel Management Console
This topic describes how to run the Siebel Management Console. For more information, see “About Configuring Siebel Business Applications” on page 63. It includes the following information:

■ “Starting the Siebel Management Console” on page 67
■ “Overview of Siebel Management Console” on page 68
■ “Supported Activities in Siebel Management Console” on page 72

Starting the Siebel Management Console
Use the instructions below to start the Siebel Management Console. This task is part of “Running the Siebel Management Console” on page 67.

To start the Siebel Management Console
1 Make sure that you have installed all the necessary Siebel Business Applications software and performed any required postinstallation steps.
   Depending on your authentication method, you might also have had to install or upgrade the Siebel database before you run the Siebel Management Console.
2 Review the information in “About Configuring Siebel Business Applications” on page 63.
3 Open a browser window and enter a URL like the following:
   SiebelApplicationInterfaceHost.FQDN:Port/siebel/smc
   In this URL:
   ■ SiebelApplicationInterfaceHost is the host name for the installed Siebel Application Interface.
FQDN is the fully qualified domain name for your deployment. An example is example.com.

**NOTE:** It is strongly recommended to use the fully qualified domain name (FQDN) feature, because security certificates are generally obtained based on fully qualified domain name. You enable the FQDN feature when you create the Siebel Application Interface profile.

Port is the HTTPS redirect port number for the installed Siebel Application Interface. You specified this HTTPS redirect port during Siebel Application Interface installation.

On the login page that appears, enter the following information, and then click Login.

- **User ID.** The first time you log in, you must use the credentials that you specified in the Application Interface Authentication screen when you installed Siebel Application Interface, as described in “Installing Siebel Business Applications in a New Installation” on page 44. Otherwise, use valid credentials for the authentication method in effect. For example, you might log in using the SADMIN account.

- **Password.** The password for this user ID.

- **Language.** The language in which to run the Siebel Management Console. You can select any of the languages that were installed on the Siebel Application Interface.

**NOTE:** After you have logged in to the Siebel Management Console for the first time and configured security for the Siebel Gateway, then you must log in to the Siebel Management Console again before you can proceed with additional configuration tasks. The Siebel Gateway must be running. For information about specific configuration tasks, see “Configuring the Siebel Gateway and Security” on page 74.

If you have already configured the Siebel Gateway, or if you performed a migration installation of the Siebel Gateway instead of a new installation, then go to the topic for the configuration task that you are performing, as shown in Table 4 on page 65.

**Related Topics**
- “About Configuring Siebel Business Applications” on page 63
- “Overview of Siebel Management Console” on page 68
- “Supported Activities in Siebel Management Console” on page 72
- “Configuring the Siebel Gateway and Security” on page 74

**Overview of Siebel Management Console**

Siebel Management Console is a Web-based application that runs on the Siebel Application Interface. The tasks that you perform in this program use the graphical user interface shown in the figures. This topic is part of “Running the Siebel Management Console” on page 67.

**NOTE:** Where possible, it is strongly recommended to explore this user interface as much as possible before performing important configuration tasks for any Siebel environment. For many tasks, multiple ways of performing those tasks are provided.
The Siebel Management Console, which displays this name in its title bar, includes user interface features such as menus, icons, lists and forms, and a hierarchical display of your Siebel deployment. The options and defaults that the Management Console displays depend on which module you are configuring and on prior selections. For each profile configuration task, the settings you see are also displayed in a table.

The Siebel Management Console performs validation on the input that you provide. For example, you cannot proceed to the next screen unless you have provided values for all required fields. Pointing to items displayed in the console displays tooltips for many of the selections, which supplement the information provided in this guide.

Sample configurations are provided for most types of configuration profiles. As a shortcut for creating profiles, you can select these sample profiles and review their settings. As appropriate, you can copy and modify these profiles for your own use.

Click each section to review its options. When you are creating a new profile, you must specify settings for all required options, clicking Next where necessary to display options in subsequent sections. When you are reviewing an existing profile, the Next button is not available. However, for applicable profile types, you can view additional sections by clicking the next segment of the multipart horizontal bar.

The Siebel Management Console, which you run in the browser from the Siebel Application Interface installation, uses RESTful services and application containers to communicate with the physical Siebel modules that you are configuring or that participate in the configuration process.

The Siebel Management Console primarily supports the initial configuration of Siebel Business Applications. In addition to creating profiles and deploying them to your initial Siebel deployment, you can configure newly installed modules to add to your existing deployment. You can also modify profiles (subject to limitations), clone profiles, compare profiles, and delete profiles.
You can modify the configuration of existing deployment items in Siebel Management Console, as follows:

- For Siebel Application Interface, the profile is in a read-write state after you deploy it. You can update configuration settings and save the profile to propagate the updates to the deployed Siebel Application Interface.

- For all other deployment items, the profile that you had used to configure the entity is in a read-only state after deployment. To modify the deployment item, you must remove it, modify the applicable profile, and then redeploy the profile to a new deployment item. For more information about deleting a deployment item, see “Process of Removing Configuration Data” on page 261.

- Deployment items in the Saved or Staging states can be modified. For other than Siebel Application Interface, deployments in any other state are not editable and cannot be modified other than as described in the previous paragraph.

Also note the following about the display of configuration data in Siebel Management Console:

- Restarting the Siebel Application Interface refreshes all profile data.

- If the deployment is migrated successfully by the Siebel Migration application, then, when you refresh the configuration, the state changes to Migrated.

**Siebel Management Console Screens**

*Figure 5 on page 71* shows the Siebel Deployment screen in Siebel Management Console. Use this screen to deploy new items, using profiles that you have created, or to review or update settings for existing deployed items, where possible. When you select a deployment item that you have added, the icons at the top change to include those that correspond to actions you can perform on this deployment item.
Figure 5. Siebel Deployment Screen in Siebel Management Console

Figure 6 on page 72 shows the Profiles screen in Siebel Management Console. Use this screen to create new profiles or to review or update settings for existing profiles.
Supported Activities in Siebel Management Console

In the current release, Siebel Management Console supports several different activities or actions, most of which are summarized here, organized by the user interface features where these activities are initiated. This topic is part of “Running the Siebel Management Console” on page 67.

- Profiles selection in navigation menu (in left panel), then overview area:
  - Comparing two or more profiles (Compare icon at top of overview area)
  - Cloning a profile (Clone icon at top of overview area)
  - Creating a profile for a configurable entity (Add icon (+) at top of overview area)
  - Editing a profile (Edit icon at top of overview area)
  - Deleting a profile (Delete icon at top of overview area)
Configuring Siebel Business Applications Server Modules

- Querying profile data (Query icon at top of overview area)
- Refreshing profile data (Refresh icon at top of overview area)

Siebel Deployment selection in navigation menu (in left panel), then overview area:
- Reviewing overall deployment (overview area)
- Adding a new deployment item (Add icon (+) at top of overview area)
- Deploying a profile into your Siebel environment (Deploy selection in Action field, then Submit button)
- Staging a profile for later deployment into your Siebel environment (Stage selection in Action field, then Submit button)
- Deleting configuration data for a deployed entity (Delete icon at top of overview area). You might need to delete and redeploy a deployment item in order to modify its configuration in Siebel Management Console. Note that deleting a deployment item corresponding to a Siebel Server stops the system service.
- Refreshing configuration data displayed in Siebel Management Console (Refresh icon at top of overview area)

Enterprise Cache selection in navigation menu (in left panel):
- Clearing a deployed cache, or all caches

Settings selection in navigation menu (in left panel), then overview area:
- Invoking introspection of the Siebel deployment in order to refresh the deployment in Siebel Management Console (Refresh Configuration button). You can use this option to bring configurations that were not done using Siebel Management Console into Siebel Management Console.
- Viewing the introspection log data (View Log button)
- Removing the configuration for the Siebel Gateway (removes all profiles and deployment data)
- Modifying the search synchronization interval (in minutes, between 5 and 30), which specifies how often searchable configuration data is synchronized with the server. This setting affects searches for the current user and browser only.

About selection in navigation menu (in left panel):
- Viewing copyright information about Siebel Management Console

Toolbar area (above overview area):
- Searching the configuration data for available profiles or deployed entities
- Viewing the current user of Siebel Management Console
- Logging out of Siebel Management Console (Logout icon)

Related Topics
"About Configuring Siebel Business Applications” on page 63
“Starting the Siebel Management Console” on page 67
Installing the Siebel Database

If you do not have an existing Siebel database, then you use the Siebel Database Configuration Wizard to install this database. This task is described in Chapter 5, "Installing the Siebel Database on the RDBMS."

Before you install the Siebel database, you must review the guidelines described for your RDBMS in Chapter 11, "Configuring the RDBMS."

This task is a step in "Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment" on page 30. When you are following the task sequence in this roadmap, depending on your authentication method, you might have to perform the Siebel database tasks before you can run the Siebel Management Console.

Configuring the Siebel Gateway and Security

After you install the Siebel Business Applications, you run the Siebel Management Console to configure the Siebel Gateway and the Security profile that it requires. You might also create additional Security profiles at some point after configuring the Siebel Gateway. To configure the Siebel Gateway, perform the following tasks:

1. “Configuring the Siebel Gateway” on page 75
2. “Configuring a Security Profile” on page 77

NOTE: Configuring the Siebel Gateway applies to new installations only. For a migration installation, the installer configures the Siebel Gateway and you do not need to configure the Siebel Gateway as described here. However, you might choose to create additional Security profiles.

For detailed information about some of the security settings in the Siebel Management Console, see Siebel Security Guide.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see “Supported Activities in Siebel Management Console” on page 72.
To configure the Siebel Gateway (first time running Siebel Management Console)

1. Run the Siebel Management Console, as described in "Starting the Siebel Management Console" on page 67. Log in using the basic authentication credentials that were provided during Siebel Application Interface installation.

   These credentials were specified in the Application Interface Authentication screen when you installed Siebel Application Interface, as described in "Installing Siebel Business Applications in a New Installation" on page 44.

2. Identify the Siebel Gateway host name and HTTPS redirect port number, in the format SiebelGatewayHost:Port, then click Save.

3. Create the security profile to configure access to the Siebel Gateway. Specify a name for the security profile.

   **NOTE:** The security profile that is created on first login is named Gateway.
4  Click the plus sign, specify the data source information for the security profile, and then click Save. For more information about these settings, see Table 5 on page 78.
   a  Specify the type of authentication to use. For example, if you have already created the Siebel database, then you could optionally select Database Authentication.
   b  Specify the name of the security adapter, such as DBSecAdpt. This name corresponds to a named subsystem. For more information, see Siebel Security Guide.
   c  Specify the data source (for database authentication).
   d  Specify whether to propagate changes (for database authentication).
   e  Specify the authorization roles.
   f  Test the user and password that you want to use under the specified authentication system.

   **NOTE:** After saving these changes, you are forcibly logged out of the Siebel Management Console, in order to activate the security adapter. Go to “Running the Siebel Management Console” on page 67 and log in again using the credentials you just specified. Then configure the Siebel Gateway registry, as identified in the next step.

5  Configure the Siebel Gateway registry, in which the configurations that you create in the Siebel Management Console will be stored, and then click Save:
   - Specify the Siebel Gateway registry port number.
   - Specify the user name that will access the registry.
   - Specify the password for this user.
   - Specify the primary language.

6  After configuring the Siebel Gateway and security, perform the configuration tasks for your Siebel deployment, which include the following:
   - Configure an additional Security profile. For more information, see “Configuring a Security Profile” on page 77.
   - Configure the Siebel Enterprise. For more information, see “Configuring the Siebel Enterprise” on page 84.
   - Configure the Siebel Server. For more information, see “Configuring the Siebel Server” on page 89.
   - Configure the Siebel Application Interface. For more information, see “Configuring the Siebel Application Interface” on page 95.
   - (Optional) Configure the Siebel Enterprise Cache (server and client). For more information, see “Configuring the Siebel Enterprise Cache” on page 106.
   - (Optional, available as a developer preview) Configure the Siebel Constraint Engine. For more information, see “Configuring the Siebel Constraint Engine” on page 117.
   - (Optional) Configure the Siebel Migration application. For more information, see “Configuring the Siebel Migration Application” on page 120.
Configuring a Security Profile

When you configure the Siebel Gateway, you configure the first Security profile. You can use the same Security profile for Siebel Enterprise authentication, or create another Security profile for the Siebel Enterprise. To create another Security profile, use the procedure that follows. This task is part of “Configuring the Siebel Gateway and Security” on page 74.

This task is required for new installations of the current release. It is not required for migration installations of Siebel Enterprise Server from a previous release, because the installation task migrates the prior configuration. However, you might choose to create a new Security profile.

Related Topics
“Running the Siebel Management Console” on page 67
“Configuring the Siebel Gateway” on page 75

To configure a Security profile

1. Run the Siebel Management Console, as described in "Starting the Siebel Management Console” on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Security.
   Existing Security profiles are listed, such as the profile created for the deployed Siebel Gateway.
3. Click the plus sign (+) at the top of the overview section to add a new Security profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
   NOTE: The security profile that is created on first login is named Gateway.
5. To the right of Data Sources, click the plus sign (+) to add a new data source.
6. Click Datasource.
7. Specify settings for the data source, as shown in Table 5 on page 78. Click Next when prompted.
8. When you have specified all applicable settings, click Submit to save your changes to the profile.
Configuration Settings for a Security Profile

Table 5 on page 78 describes the settings that are requested in the Siebel Management Console for configuring a new Security profile or modifying an existing Security profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field.

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specify the name of the data source that will be created.</td>
</tr>
<tr>
<td>Type</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specify the type of authentication you are using. The options are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Database Authentication (development only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Lightweight Directory Access Protocol (LDAP) Authentication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Custom Security Authentication (using Security SDK)</td>
</tr>
<tr>
<td>Host Name</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specify the host name for the data source, such as the host name of the database server for database authentication.</td>
</tr>
<tr>
<td>Port</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specify the port number for the data source, such as the port number of the database server for database authentication.</td>
</tr>
<tr>
<td>SQL Style of Database</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specify the SQL style for your Siebel database. Specify one of the following:</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select Database Authentication or Custom Authentication.</td>
<td>■ Oracle Database Enterprise Edition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Microsoft SQL Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ IBM DB2</td>
</tr>
<tr>
<td>Database Service Name</td>
<td>Data Sources &gt; Data Source Name</td>
<td>The service name of Oracle Enterprise Server edition, or the database name for IBM DB2 and Microsoft SQL Server.</td>
</tr>
</tbody>
</table>
### Table 5. Settings for Configuring a Security Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table Owner</td>
<td>Data Sources &gt; Data Source Name</td>
<td>The table owner for the database.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This option appears if you select Database Authentication.</td>
</tr>
<tr>
<td>Application User Distinguished Name (DN)</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the user name of a record in the directory with sufficient permissions to read any user’s information and do any necessary administration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
</tr>
<tr>
<td>Application Password</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the password for the user specified in the Application User Distinguished Name (DN) field.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
</tr>
<tr>
<td>Base Distinguished Name (DN)</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the base distinguished name, which is the root of the tree under which users of this Siebel application are stored in the directory.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
</tr>
<tr>
<td>Custom Library</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Name of the custom security adapter implementation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This option appears if you select Custom Authentication.</td>
</tr>
</tbody>
</table>
Table 5. Settings for Configuring a Security Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRC Checksum</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Provide the value of the checksum performed on the applicable security adapter library (DLL). This value, applicable for the Siebel Server only, ensures that each user accesses the Siebel database through the correct security adapter. If this field is empty or contains the value 0 (zero), then no checksum validation is performed. If you upgrade your version of Siebel Business Applications, then you must recalculate the checksum value and replace the value in this field.</td>
</tr>
<tr>
<td>Credentials Attribute</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the attribute type that stores a database account.</td>
</tr>
<tr>
<td>Hash Algorithm</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the hash algorithm to be used for password hashing. Choose one of the following:  ■ SHA2  ■ SHA1</td>
</tr>
<tr>
<td>Hash DB Password</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies password hashing for database credentials passwords.</td>
</tr>
<tr>
<td>Hash User Password</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies password hashing for user passwords.</td>
</tr>
</tbody>
</table>
### Table 5. Settings for Configuring a Security Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password Attribute Type</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the attribute type that stores a database account.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Propagate Change</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies whether to allow administration of the directory through the Siebel application user interface.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Roles Attribute (optional)</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the attribute type for roles stored in the directory.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Shared Database Account Distinguished Name (fully qualified domain name)</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the absolute path of an object in the directory that has the shared database account for the application.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Shared DB User Name</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the user name to connect to the Siebel database.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Shared DB Password</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the password for the shared database user name.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Security Adapter Mapped User Name</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies that, when the user key passed to the security adapter is not the Siebel user name, the security adapter retrieves the user name for authenticated users from an attribute defined by the parameter SiebelUsernameAttributeType.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5. Settings for Configuring a Security Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel User Name Attribute</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the attribute from which the security adapter retrieves an authenticated user’s Siebel user ID.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select Security Adapter Mapped User Name for LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>SSL</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies to enable Secure Sockets Layer for socket connections to the host.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP Authentication.</td>
<td></td>
</tr>
<tr>
<td>Wallet Password</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the password to open the wallet that contains a certificate for the certification authority used by the directory server.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select SSL for LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Configure Web Single Sign-On (Web SSO)</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies that the security adapter uses Web Single Sign-On (Web SSO) authentication rather than security adapter authentication.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Trust Token</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies a password to be used with Web Single Sign-On (Web SSO) authentication.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select Configure Web Single Sign-On for LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Salt Attribute Type</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the attribute that stores the salt value if you are using password salting.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Salt User Password</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies whether to add salt values to user passwords before they are hashed.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5. Settings for Configuring a Security Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name Attribute Type</td>
<td>Data Sources &gt; Data Source Name</td>
<td>Specifies the attribute type under which the user’s login name is stored in the directory.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select LDAP or Custom Authentication.</td>
<td></td>
</tr>
<tr>
<td>Enterprise Security Authentication Profile</td>
<td>Basic Information</td>
<td>Select one of the following options for your enterprise security authentication:</td>
</tr>
<tr>
<td></td>
<td>■ Database Authentication (development only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Lightweight Directory Access Protocol (LDAP) Authentication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ Custom Security Authentication (using Security SDK)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong> You must create the security profile before you configure the Siebel Enterprise.</td>
<td></td>
</tr>
<tr>
<td>Security Adapter Name (named subsystem)</td>
<td>Basic Information</td>
<td>Select the security adapter name.</td>
</tr>
<tr>
<td>Database Security Adapter Data Source</td>
<td>Basic Information</td>
<td>Select the security adapter data source.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select Database Authentication.</td>
<td></td>
</tr>
<tr>
<td>Database Security Adapter Propagate Changes</td>
<td>Basic Information</td>
<td>Specify whether to propagate changes for the security adapter.</td>
</tr>
<tr>
<td></td>
<td>This option appears if you select Database Authentication.</td>
<td></td>
</tr>
<tr>
<td>Authorization Roles (comma-separated)</td>
<td>Basic Information</td>
<td>Specify one or more authorization roles for accessing the Siebel Gateway. Default value: Siebel Administrator (which is provided by Oracle and cannot be changed). For more information, see &quot;Requirements for Siebel Gateway Authentication&quot; on page 308.</td>
</tr>
<tr>
<td>User Name</td>
<td>Testing</td>
<td>Specify the user name for testing authentication under the specified authentication system.</td>
</tr>
<tr>
<td>Password</td>
<td>Testing</td>
<td>Specify the password for the user account used for testing.</td>
</tr>
</tbody>
</table>
Configuring the Siebel Enterprise
The task for configuring the Siebel Enterprise lets you configure authentication using Siebel security adapters, TLS encryption, and related settings.

To configure the Siebel Enterprise, perform the following tasks:

1. "Creating a Siebel Enterprise Profile" on page 84
2. "Deploying the Siebel Enterprise" on page 88

**NOTE:** Configuring the Siebel Enterprise applies to new installations only. For a migration installation, the installer migrates the Siebel Enterprise configuration.

For detailed information about the security settings in the Siebel Management Console, see *Siebel Security Guide*.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see "Supported Activities in Siebel Management Console" on page 72.

This task is a step in:

- "Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment" on page 30
- "Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)" on page 36

**Related Topics**
"About Configuring Siebel Business Applications" on page 63
"Running the Siebel Management Console" on page 67
"Requirements for Installing and Configuring Siebel Enterprise Server Components" on page 305

**Related Books**
*Siebel Security Guide*
*Siebel System Administration Guide*

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**Creating a Siebel Enterprise Profile**
This procedure describes how to configure a Siebel Enterprise profile. You can create multiple profiles, but you can deploy only one instance of Siebel Enterprise in your Siebel deployment. This task is part of “Configuring the Siebel Enterprise” on page 84.

**Related Topics**
"Running the Siebel Management Console" on page 67
"Deploying the Siebel Enterprise” on page 88
To create a Siebel Enterprise profile

1. Run the Siebel Management Console, as described in "Starting the Siebel Management Console" on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Enterprise.
   Existing Enterprise profiles are listed, if any.
3. Click the plus sign (+) at the top of the overview section to add a new Enterprise profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
5. Specify additional settings, as shown in Table 6 on page 85.
6. When you have specified all applicable settings, click Submit to save your changes to the profile.

Configuration Settings for a Siebel Enterprise Profile

Table 6 on page 85 describes the settings that are requested in the Siebel Management Console for configuring a new Siebel Enterprise profile or modifying an existing Siebel Enterprise profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field.

For requirements and restrictions for some of these parameters, see “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305. Parameters that are set as a result of configuring the Siebel Enterprise are set at the Siebel Enterprise level or set for named subsystems such as for a data source or security adapter.

NOTE: After you have already configured the Siebel Enterprise, you can modify its configuration using Siebel Server Manager, as described in Siebel System Administration Guide.

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Siebel File System</td>
<td>Basic Information</td>
<td>Specify the location or locations of the Siebel File System. If the folder path provided does not exist, then the deployment step creates it. For more information, see &quot;Creating the Siebel File System” on page 298.</td>
</tr>
<tr>
<td>User Name</td>
<td>Authentication</td>
<td>Specify the authorized user name for logging into the Siebel Gateway.</td>
</tr>
<tr>
<td>Password</td>
<td>Authentication</td>
<td>Specify the password for this user.</td>
</tr>
<tr>
<td>Setting in Siebel Management Console</td>
<td>Section (Under Create Profile)</td>
<td>Comment or Description</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>
| RDBMS Platform                      | Database Information          | Specify the RDBMS platform for the Siebel database. The options are:  
                                          - Oracle Database Enterprise Edition  
                                          - Microsoft SQL Server  
                                          - IBM DB2 UDB for Linux UNIX Windows  
                                          - IBM DB2 UDB for z/OS |
| Oracle SQLNet Connect String        | Database Information          | (Oracle Database only)  
                                          Specify the Oracle SQLNet connect string. |
| Microsoft SQL Server Host Name      | Database Information          | (Microsoft SQL Server only)  
                                          Specify the host name for Microsoft SQL Server. |
| Microsoft SQL Server Port           | Database Information          | (Microsoft SQL Server only)  
                                          Specify the database port number for Microsoft SQL Server. |
| Microsoft SQL Server Database Name  | Database Information          | (Microsoft SQL Server only)  
                                          Specify the database name for Microsoft SQL Server. |
| IBM DB2 Database Alias              | Database Information          | (IBM DB2 only)  
                                          Specify the database alias for IBM DB2. |
| Current IBM DB2 SQL ID / Group Name | Database Information          | (IBM DB2 for z/OS only)  
                                          Specify the current SQL ID or group name for IBM DB2. |
| IBM DB2 Client Instance Home Directory | Database Information           | (IBM DB2 or DB2 for z/OS only)  
                                          Provide the absolute path of the parent directory where IBM DB2 client software is installed on UNIX, and the value of the DB2INSTPROF parameter on Windows.  
                                          UNIX example: /export/home/myuser  
                                          Windows example: C:\Program Data\IBM\DB2\Copy Name |
| Database User Account Name          | Database Information          | (For all database platforms)  
                                          Specify the database user account. |
<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database User Account Password</td>
<td>Database Information</td>
<td>(For all database platforms) Specify the password for the database user account.</td>
</tr>
<tr>
<td>Table Owner</td>
<td>Database Information</td>
<td>(Oracle Database, DB2, or DB2 for z/OS only) Specify the table owner.</td>
</tr>
<tr>
<td>Authentication Profile</td>
<td>Authentication</td>
<td>Specify the security profile to use for Siebel Enterprise authentication.</td>
</tr>
<tr>
<td>Primary Language</td>
<td>Authentication</td>
<td>Specify the primary language for your Siebel deployment.</td>
</tr>
</tbody>
</table>
| Security Encryption Level or Type   | Security Information         | Specify the security encryption level or type. Select one of the following options:  
  ▪ Without Encryption  
  ▪ Using TLS 1.2 (default) |
| Certification Authority (CA) Certificate File Name | Security Information | This option and all of the remaining items appear only if you use the TLS option in Security Encryption Level or Type. Provide the name that can identify the trusted authority who issued the certificate file. For more information, see Siebel Security Guide. |
| Private Key File Name               | Security Information         | Provide the name of the PEM private key file. For more information, see Siebel Security Guide. |
| Private Key File Password           | Security Information         | Provide the password that can decrypt the PEM private key file. For more information, see Siebel Security Guide. |
| Enable Peer Authentication          | Security Information         | Check this field to enable peer authentication during the SSL handshake. For more information, see Siebel Security Guide. |
| Validate Peer Certificate           | Security Information         | Check this field to verify that the computer matches with the host name presented in the certificate. For more information, see Siebel Security Guide. |
Deploying the Siebel Enterprise

This procedure describes the steps for deploying Siebel Enterprise. You can deploy only one instance of Siebel Enterprise in your Siebel deployment. This task is part of “Configuring the Siebel Enterprise” on page 84.

This task is required for new installations of the current release. It is not applicable for migration installations of Siebel Enterprise Server from a previous release, because the installation task migrates the prior configuration.

Before you can deploy the Siebel Enterprise, you must have already configured the Siebel Gateway, as described in “Configuring the Siebel Gateway and Security” on page 74.

**NOTE:** After deployment, the Siebel Enterprise profile is in a read-only state. If you need to update the configuration, then it is recommended to use Server Manager. Then refresh the configuration data displayed in Siebel Management Console.

**Related Topics**

"Additional Tasks for Migration Installations” on page 57
"About Configuring Siebel Business Applications” on page 63
"Running the Siebel Management Console” on page 67
"Creating a Siebel Enterprise Profile“ on page 84

**To deploy the Siebel Enterprise**

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

2. Click Siebel Deployment in the navigation menu in the left panel.

3. Above the hierarchical display of deployment items in the overview area, click the plus sign (+) and then select Enterprise to add a new instance to your Siebel deployment.

4. For Action, specify whether you will deploy this Siebel Enterprise or stage it for later deployment:
   - If you want to stage this Siebel Enterprise for later deployment, then click Staging.
   - If you want to deploy this Siebel Enterprise to your Siebel deployment now, then click Deploy.

5. For Profile, select the profile to use for this instance of Siebel Enterprise.
   You created this profile in “Creating a Siebel Enterprise Profile” on page 84.

6. For Siebel Enterprise Name, specify the name of this Siebel Enterprise.
   For more information, see “Restrictions on Names for Siebel Enterprise and Siebel Server” on page 296.

7. For Enterprise Description, specify an optional description of this Siebel Enterprise.
To continue, click Submit. Otherwise, click Cancel.

After the configuration has been submitted, the state of this Siebel Enterprise deployment item changes to one of the following states, based on your selection in Step 4 on page 88: Staging or Deployment in Progress.

- If the deployment completes successfully, then, when you refresh the configuration, the state changes to Deployed.
- If the deployment fails, then the state changes to Deployment Failed.
- For a deployment in the Staging state, you can deploy it by either clicking the Deploy icon or by setting the Action to Deploy and resubmitting the deployment.

(Optional) View log data about this Siebel Enterprise deployment.

## Configuring the Siebel Server

After you have installed Siebel Server and performed the prerequisite tasks, you run the Siebel Management Console and choose tasks to configure the Siebel Server, as described in this topic. To configure the Siebel Server, perform the following tasks:

1. “Creating a Siebel Server Profile” on page 90
2. “Deploying the Siebel Server” on page 94

**NOTE:** Configuring the Siebel Server applies to new installations. For a migration installation, the installer migrates the Siebel Server configuration.

For detailed information about the security settings in the Siebel Management Console, see *Siebel Security Guide*.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see “Supported Activities in Siebel Management Console” on page 72.

This task is a step in:

- “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
- “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

**Related Topics**

“About Configuring Siebel Business Applications” on page 63  
“Running the Siebel Management Console” on page 67  
“Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305

**Related Books**

*Siebel Security Guide*
Siebel System Administration Guide

Creating a Siebel Server Profile

This procedure describes how to configure a Siebel Server profile. The same steps apply whether you are configuring the first Siebel Server profile or configuring any additional profile. This task is part of “Configuring the Siebel Server” on page 89.

Related Topics
“Running the Siebel Management Console” on page 67
"Deploying the Siebel Server” on page 94

To create a Siebel Server profile

1. Run the Siebel Management Console, as described in "Starting the Siebel Management Console” on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Siebel Server.
   Existing Siebel Server profiles are listed, if any.
3. Click the plus sign (+) at the top of the overview section to add a new Siebel Server profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
5. Specify additional settings, as shown in Table 7 on page 91.
6. When you have specified all applicable settings, click Submit to save your changes to the profile.

Configuration Settings for a Siebel Server Profile

Table 7 on page 91 describes the settings that are requested in the Siebel Management Console for configuring a new Siebel Server profile or modifying an existing Siebel Server profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field.

For requirements for and restrictions on some of these parameters, see “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305. Parameters that are set as a result of configuring the Siebel Server are set at the Siebel Server level.

NOTE: After you have already configured a Siebel Server, you can modify its configuration using Siebel Server Manager, as described in Siebel System Administration Guide.
Table 7. Settings for Configuring a Siebel Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name</td>
<td>Basic Information</td>
<td>Specify the authorized user name for logging into the Siebel Gateway.</td>
</tr>
<tr>
<td>Password</td>
<td>Basic Information</td>
<td>Specify the password for this user.</td>
</tr>
<tr>
<td>Anonymous User Name</td>
<td>Basic Information</td>
<td>Enter the user name required for anonymous browsing and initial access to the login pages of the application you are implementing. For more information about anonymous users, see “Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318.</td>
</tr>
<tr>
<td>Anonymous User Password</td>
<td>Basic Information</td>
<td>Specify the password for this anonymous user.</td>
</tr>
<tr>
<td>Enable Component Groups</td>
<td>Basic Information</td>
<td>Specify one or more component groups to enable for the Siebel Server. For more information about component groups, see Siebel System Administration Guide.</td>
</tr>
<tr>
<td>Siebel Connection Broker Port</td>
<td>Basic Information</td>
<td>Specify the TCP/IP port number for the Siebel Connection Broker component (alias SCBroker). The default port number is 2321. This port number is used for all of the communications between SCBroker and other components, including the Siebel Application Interface. Make sure that the port number that you specify is not already used by any other applications or components. You also specify this port number when you configure the Siebel Application Interface, as described in “Deploying the Siebel Application Interface” on page 105. For more information about the SCBroker component, see Siebel Deployment Planning Guide and Siebel System Administration Guide.</td>
</tr>
</tbody>
</table>
### Table 7. Settings for Configuring a Siebel Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network TCP/IP Port for Synchronization Manager</td>
<td>Basic Information</td>
<td>Specify the TCP/IP port number for the Synchronization Manager component, which is part of Siebel Remote. The default port number is 40400.</td>
</tr>
<tr>
<td>Server-Specific Security Encryption Settings</td>
<td>Enhanced Settings &gt; Security</td>
<td>Select this option to configure security and encryption for communications between this Siebel Server and other servers. If you do not select this option, then the applicable settings are inherited from the Enterprise.</td>
</tr>
<tr>
<td>Server-Specific Security Authentication Profile Assignment</td>
<td>Enhanced Settings &gt; Security</td>
<td>Select this option to assign an existing security adapter to this Siebel Server or to specific components.</td>
</tr>
<tr>
<td>Security Encryption Level or Type</td>
<td>Enhanced Settings &gt; Security</td>
<td>Specify the security encryption level or type. Select one of the following options:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Without Encryption</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Using TLS 1.2 (default)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Using RSA Encryption Algorithm</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NOTE:</strong> RSA is required for Siebel Remote encryption.</td>
</tr>
<tr>
<td>Certificate File Name</td>
<td>Enhanced Settings &gt; Security</td>
<td>Provide the name of the ASN/PEM certificate file. For more information, see <em>Siebel Security Guide</em>.</td>
</tr>
<tr>
<td>Certification Authority (CA) Certificate File Name</td>
<td>Enhanced Settings &gt; Security</td>
<td>Provide the name that can identify the trusted authority who issued the certificate file. For more information, see <em>Siebel Security Guide</em>.</td>
</tr>
</tbody>
</table>
### Clustering Configuration
Specify the clustering configuration. You can select one of the following clustering options:
- Not Clustered
- Clustered Using Virtual Host Name (valid NETBIOS name)
- Clustered Using Virtual IP Address (for example, 192.168.0.1)

In certain cases, it is useful to cluster Siebel Servers for high availability. The cluster nodes must be started per cluster instructions, if clustering is selected.

### Siebel Server Cluster Virtual Host Name/IP
This option appears if you select either of the two clustering options. Specify one of the following, depending on your selection under Clustering Configuration:
- If you selected Clustered Using Virtual Host Name, then specify the host name.
- If you selected Clustered Using Virtual IP Address, then specify the IP address.

### RDBMS Platform
Specify the RDBMS platform for the Siebel database. The options are:
- Oracle Database Enterprise Edition
- Microsoft SQL Server
- IBM DB2

### Register External Oracle ODBC Driver
This option appears only if you chose Oracle Database Enterprise Edition. This option is read-only and is set to True.

### IBM DB2 Client Instance Home Directory
Provide the absolute path of the parent folder where the IBM DB2 client is installed. This setting is optional for Microsoft Windows.

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#### Table 7. Settings for Configuring a Siebel Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
</table>
| Clustering Configuration             | Enhanced Settings > Clustering  | Specify the clustering configuration. You can select one of the following clustering options:  
- Not Clustered  
- Clustered Using Virtual Host Name (valid NETBIOS name)  
- Clustered Using Virtual IP Address (for example, 192.168.0.1)  
In certain cases, it is useful to cluster Siebel Servers for high availability. The cluster nodes must be started per cluster instructions, if clustering is selected. |
| Siebel Server Cluster Virtual Host Name/IP | Enhanced Settings > Clustering  
This option appears if you select either of the two clustering options.  
- If you selected Clustered Using Virtual Host Name, then specify the host name.  
- If you selected Clustered Using Virtual IP Address, then specify the IP address. |
| RDBMS Platform                        | Enhanced Settings > Other Information | Specify the RDBMS platform for the Siebel database. The options are:  
- Oracle Database Enterprise Edition  
- Microsoft SQL Server  
- IBM DB2 |
| Register External Oracle ODBC Driver | Enhanced Settings > Other Information  
This option appears only if you chose Oracle Database Enterprise Edition.  
This option is read-only and is set to True. |
| IBM DB2 Client Instance Home Directory | Enhanced Settings > Other Information  
This option appears only if you chose IBM DB2.  
Provide the absolute path of the parent folder where the IBM DB2 client is installed. This setting is optional for Microsoft Windows. |
Deploying the Siebel Server

This procedure describes the steps for deploying an installed instance of Siebel Server. You perform the same procedure for each installed instance of Siebel Server. This task is part of “Configuring the Siebel Server” on page 89.

This task is required for new installations of the current release. It is not applicable for migration installations of Siebel Enterprise Server from a previous release, because the installation task migrates the prior configuration. However, you might choose to install and deploy a new Siebel Server.

Before you can deploy an installed instance of Siebel Server, you must have already configured the Siebel Enterprise, as described in “Configuring the Siebel Enterprise” on page 84.

**NOTE:** After deployment, the Siebel Server profile is in a read-only state. If you need to update the configuration, then it is recommended to use Server Manager. Then refresh the configuration data displayed in Siebel Management Console.

Related Topics
"Additional Tasks for Migration Installations“ on page 57
“About Configuring Siebel Business Applications” on page 63
“Running the Siebel Management Console” on page 67
"Creating a Siebel Server Profile“ on page 90

**To deploy the Siebel Server**

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
2. Click Siebel Deployment in the navigation menu in the left panel.
3. Above the hierarchical display of deployment items in the overview area, click the plus sign (+) and then select Siebel Server to add a new instance to your Siebel deployment.
   The Siebel Server must already have been installed.
4. For Host Name:HTTPS Port, specify the host name and HTTPS redirect port for this instance of Siebel Server. You specified this HTTPS redirect port during Siebel Server installation.
5. For Profile, select the profile to use for this deployment of Siebel Server.
   You created this profile in “Creating a Siebel Server Profile“ on page 90.
6. For Action, specify whether you will deploy this Siebel Server or stage it for later deployment:
   - If you want to stage this Siebel Server for later deployment, then click Staging.
   - If you want to deploy this Siebel Server to your Siebel deployment, then click Deploy.
7. For Siebel Server Name, specify the name of this Siebel Server.
   For more information, see “Restrictions on Names for Siebel Enterprise and Siebel Server” on page 296.
For Siebel Server Description, specify an optional description of this Siebel Server.

For Deployed Languages, specify all of the languages that you plan to deploy for this Siebel Server.

To continue, click Submit. Otherwise, click Cancel.

After the configuration has been submitted, the state of this Siebel Server deployment item changes to one of the following states, based on your selection in Step 6 on page 94: Staging or Deployment in Progress.

- If the deployment completes successfully, then, when you refresh the configuration, the state changes to Deployed. The Siebel Server system service starts automatically.
- If the deployment fails, then the state changes to Deployment Failed.
- For a deployment in the Staging state, you can deploy it by either clicking the Deploy icon or by setting the Action to Deploy and resubmitting the deployment.

(Optional) View log data about this Siebel Server deployment.

**Configuring the Siebel Application Interface**

After you have installed Siebel Application Interface, and after you have configured the Siebel Gateway, Siebel Enterprise, and Siebel Server, you run the Siebel Management Console and choose tasks to configure the Siebel Application Interface, as described in this topic. To configure the Siebel Application Interface, perform the following tasks:

1. “Creating a Siebel Application Interface Profile” on page 96
2. “Deploying the Siebel Application Interface” on page 105

For information about deploying multiple instances of Siebel Application Interface, see “Planning the Siebel Application Interface Topology” on page 315.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see “Supported Activities in Siebel Management Console” on page 72.

This task is a step in:

- “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
- “Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33
- “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

**Related Topics**

“Additional Tasks for Migration Installations” on page 57
Creating a Siebel Application Interface Profile

This procedure describes how to configure a Siebel Application Interface profile. The same steps apply whether you are configuring the first Siebel Application Interface profile, reconfiguring the same profile with different settings, or configuring any additional profile. This task is part of “Configuring the Siebel Application Interface” on page 95.

**NOTE:** Before you create a Siebel Application Interface profile, make sure that you have already deployed the Siebel Server. After you have done this, the Object Manager and Application settings in Siebel Application Interface profile configuration are populated with values you can choose from that reflect available components on the Siebel Server.

**Related Topics**

- “Running the Siebel Management Console” on page 67
- “Deploying the Siebel Application Interface” on page 105

**To create a Siebel Application Interface profile**

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Application Interface. Existing Siebel Application Interface profiles are listed, if any.
3. Click the plus sign (+) at the top of the overview section to add a new Siebel Application Interface profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
5. Specify additional settings, as shown in Table 8 on page 97.
6. When you have specified all applicable settings, click Submit to save your changes to the profile.
**Configuration Settings for a Siebel Application Interface Profile**

Table 8 on page 97 describes the settings that are requested in the Siebel Management Console for configuring a new Siebel Application Interface profile or modifying an existing Siebel Application Interface. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field. Clicking the large plus sign (+) to the right of some options adds a new instance of a configurable item, which is represented in the second column using italics.

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP 1.1-Compliant Firewall / Enable Web Compression</td>
<td>Basic Information</td>
<td>Specify that the Siebel Application Interface compresses HTTP traffic. Compressing HTTP traffic, where it is feasible to do so, substantially reduces bandwidth consumption. This feature is supported on HTTP 1.1 and is not supported on HTTP 1.0. For more information about specifying compression, see <em>Siebel Security Guide</em>.</td>
</tr>
<tr>
<td>Configure Fully Qualified Domain Name</td>
<td>Basic Information</td>
<td>Specify whether you are using a fully qualified domain name for your Siebel Business Applications. It is strongly recommended to use the fully qualified domain name feature. For more information, see “Configuring Siebel Business Applications for Pop-Up Blocker Compatibility” on page 208.</td>
</tr>
<tr>
<td>Fully Qualified Domain Name</td>
<td>Basic Information</td>
<td>Specify the fully qualified domain name for your Siebel Business Applications, such as example.com. It is strongly recommended to use the fully qualified domain name feature.</td>
</tr>
<tr>
<td>Active Session Timeout Value</td>
<td>Authentication</td>
<td>Specify the total number of seconds that a session can remain inactive before the user is logged out and the session is closed. Default value: 900 (in seconds)</td>
</tr>
<tr>
<td>Login Session (guest session) Timeout Value</td>
<td>Authentication</td>
<td>Specify the timeout value for the login session. Default value: 300 (in seconds)</td>
</tr>
<tr>
<td>Method to Check Server Availability</td>
<td>Authentication</td>
<td>Specify the method to use for checking server availability. Default value: HeartBeat</td>
</tr>
</tbody>
</table>
Table 8. Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command to Check Server Availability</td>
<td>Authentication</td>
<td>Specify the command to use for checking server availability. Default value: UpdatePrefMsg</td>
</tr>
<tr>
<td>Session Token Usage Duration</td>
<td>Authentication</td>
<td>Specify the usage duration for the session token. Default value: 2880 (in minutes)</td>
</tr>
<tr>
<td>Session Token Timeout Value</td>
<td>Authentication</td>
<td>Specify the timeout value for the session token. Default value: 900 (in seconds)</td>
</tr>
<tr>
<td>Configure Web Single Sign-On (Web SSO)</td>
<td>Authentication</td>
<td>Specify whether to use Web single sign-on.</td>
</tr>
<tr>
<td>Anonymous User Name</td>
<td>Authentication</td>
<td>Specify the Siebel user ID that starts the anonymous session from which an end user is shown the login page for an application. For example: GUESTCST</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NOTE:</strong> Later in profile configuration, you can optionally configure a different anonymous user for individual applications, if you require settings different from the defaults. For example, you might use a different anonymous user for customer applications than for employee applications.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For more information about anonymous users, see “Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318.</td>
</tr>
<tr>
<td>Anonymous User Password</td>
<td>Authentication</td>
<td>Specify the password for the anonymous user.</td>
</tr>
<tr>
<td>Trust Token</td>
<td>Authentication</td>
<td>Specify the trust token to use for authentication.</td>
</tr>
<tr>
<td>User Specification</td>
<td>Authentication</td>
<td>Specify the user specification to use for authentication.</td>
</tr>
</tbody>
</table>
Table 8. Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anonymous User Name</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify the anonymous user to use for REST inbound authentication. For more information, see Siebel REST API Guide. For more information about anonymous users, see “Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318.</td>
</tr>
<tr>
<td>Anonymous User Password</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify the password for the anonymous user for REST inbound authentication. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Authentication Type</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify the authentication type for REST inbound authentication. You can select one of the following options: ■ Basic Authentication ■ Single Sign-On ■ OAuth For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Authentication URL</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify the URL to use for REST inbound authentication. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Trust Token</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify the trust token to use for REST inbound authentication. For more information, see Siebel REST API Guide.</td>
</tr>
</tbody>
</table>
### Table 8. Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Specification</td>
<td>Authentication &gt; REST Inbound Authentication This option appears if you select the Single Sign-On option.</td>
<td>Specify the user specification to use for REST inbound authentication. For more information, see <em>Siebel REST API Guide</em>.</td>
</tr>
<tr>
<td>Session Timeout (seconds)</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify the session timeout, in seconds, to use for REST inbound authentication. For more information, see <em>Siebel REST API Guide</em>.</td>
</tr>
<tr>
<td>Secure Channel</td>
<td>Authentication &gt; REST Inbound Authentication</td>
<td>Specify whether to use a secure channel. For more information, see <em>Siebel REST API Guide</em>.</td>
</tr>
<tr>
<td>User Interface Log Level</td>
<td>Logging</td>
<td>Specify the user interface logging level. Select one of the following options: Fatal, Error (default), Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>EAI Log Level</td>
<td>Logging</td>
<td>Specify the EAI logging level. Select one of the following options: Fatal, Error, Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>DAV Log Level</td>
<td>Logging</td>
<td>Specify the DAV logging level. Select one of the following options: Fatal, Error (default), Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>REST Outbound Log Level</td>
<td>Logging</td>
<td>Specify the REST outbound logging level. Select one of the following options: Fatal, Error (default), Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>REST Inbound Log Level</td>
<td>Logging</td>
<td>Specify the REST inbound logging level. Select one of the following options: Fatal, Error (default), Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>SOAP Outbound Log Level</td>
<td>Logging</td>
<td>Specify the SOAP outbound logging level. Select one of the following options: Fatal, Error (default), Warning, Debug, Trace, Information, All</td>
</tr>
</tbody>
</table>
### Table 8. Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object Manager</td>
<td>REST Inbound Defaults</td>
<td>Select the Object Manager component to use for REST inbound communications, such as EAI Object Manager. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>REST Response Base URL</td>
<td>REST Inbound Defaults</td>
<td>Specify the base URL for a REST response. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Maximum Possible Connections</td>
<td>REST Inbound Defaults</td>
<td>Specify the maximum number of possible connections. Default value: 20 For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Minimum Possible Connections</td>
<td>REST Inbound Defaults</td>
<td>Specify the minimum number of connections in the pool, as a percentage of the maximum. Default value: 25 For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Method Name</td>
<td>REST Inbound Defaults &gt; REST Resource Parameter List &gt; Query</td>
<td>Specify the method name to use for queries. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Name</td>
<td>REST Inbound Defaults &gt; REST Resource Parameter List &gt; Query &gt; Parameter List</td>
<td>Specify the name for each query parameter. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Alias</td>
<td>REST Inbound Defaults &gt; REST Resource Parameter List &gt; Query &gt; Parameter List</td>
<td>Specify the alias for each query parameter. For more information, see Siebel REST API Guide.</td>
</tr>
<tr>
<td>Application Name</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify an application to configure for this instance of Siebel Application Interface, for each specified language.</td>
</tr>
<tr>
<td>Object Manager</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify the Object Manager component for the selected application.</td>
</tr>
<tr>
<td>Language</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Displays the language for the selected application.</td>
</tr>
</tbody>
</table>
### Table 8. Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Start Command</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify the request start command for the selected application.</td>
</tr>
<tr>
<td>Configure EAI HTTP Inbound Transport</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify whether to configure the EAI HTTP Inbound Transport. Choose this option for EAI applications only, and not for any other applications.</td>
</tr>
<tr>
<td>Configure Anonymous Pool</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify whether to configure the anonymous pool for EAI requests.</td>
</tr>
<tr>
<td>Anonymous Pool Size</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify the size of the anonymous pool for EAI requests.</td>
</tr>
<tr>
<td>Maximum Retry for Processing EAI-SOAP Request</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify the maximum number of retries for processing SOAP requests for EAI.</td>
</tr>
<tr>
<td>No Session Preference in EAI-SOAP</td>
<td>Applications &gt; Language &gt; Basic Information</td>
<td>Specify whether the session preference is required in EAI-SOAP.</td>
</tr>
<tr>
<td>Configure Siebel Mobile</td>
<td>Applications &gt; Language &gt; Mobile</td>
<td>Specify whether to configure Siebel Mobile applications.</td>
</tr>
</tbody>
</table>
### Table 8: Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Display Name</td>
<td>Applications &gt; Language &gt; Mobile&lt;br&gt;This option appears if you select Configure Siebel Mobile.</td>
<td>Specify the display name of the Siebel Mobile application.</td>
</tr>
<tr>
<td>Application Display Order</td>
<td>Applications &gt; Language &gt; Mobile&lt;br&gt;This option appears if you select Configure Siebel Mobile.</td>
<td>Specify the display order of the Siebel Mobile application.</td>
</tr>
<tr>
<td>Application Icon Name</td>
<td>Applications &gt; Language &gt; Mobile&lt;br&gt;This option appears if you select Configure Siebel Mobile.</td>
<td>Specify the icon name of the Siebel Mobile application.</td>
</tr>
<tr>
<td>Active Session Timeout Value</td>
<td>Applications &gt; Language &gt; Enhanced Authentication&lt;br&gt;&lt;strong&gt;NOTE:&lt;/strong&gt; Use the Enhanced Authentication settings to optionally configure authentication for individual applications, if you require override settings different from the defaults specified under Basic Information and Authentication.</td>
<td>Specify the total number of seconds that a session can remain inactive before the user is logged out and the session is closed. Default value: 900 (in seconds)</td>
</tr>
<tr>
<td>Login Session (guest session) Timeout Value</td>
<td>Applications &gt; Language &gt; Enhanced Authentication</td>
<td>Specify the timeout value for the login session. Default value: 300 (in seconds)</td>
</tr>
<tr>
<td>Method to Check Server Availability</td>
<td>Applications &gt; Language &gt; Enhanced Authentication</td>
<td>Specify the method to use for checking server availability. Default value: HeartBeat</td>
</tr>
</tbody>
</table>
### Configuring the Siebel Application Interface

#### Table 8. Settings for Configuring a Siebel Application Interface Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
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</tr>
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<tbody>
<tr>
<td>Command to Check Server Availability</td>
<td>Applications &gt; Language &gt; Enhanced Authentication</td>
<td>Specify the command to use for checking server availability. Default value: UpdatePrefMsg</td>
</tr>
<tr>
<td>Session Token Usage Duration</td>
<td>Applications &gt; Language &gt; Enhanced Authentication</td>
<td>Specify the usage duration for the session token. Default value: 2880 (in minutes)</td>
</tr>
<tr>
<td>Session Token Timeout Value</td>
<td>Applications &gt; Language &gt; Enhanced Authentication</td>
<td>Specify the timeout value for the session token. Default value: 900 (in seconds)</td>
</tr>
<tr>
<td>Configure Web Single Sign-On (Web SSO)</td>
<td>Applications &gt; Language &gt; Enhanced Authentication</td>
<td>Specify whether to use Web single sign-on.</td>
</tr>
</tbody>
</table>
| Anonymous User Name                  | Applications > Language > Enhanced Authentication | Specify the Siebel user name that starts the anonymous session for the specified application.  
For example: GUESTCST  
For more information about anonymous users, see “Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318. |
| Anonymous User Password              | Applications > Language > Enhanced Authentication | Specify the password for the anonymous user. |
| Language                             | Other Information > SWE         | Provide the default language of Siebel Business Applications. |
| HTTP-POST Request Size               | Other Information > SWE         | Specify the maximum size, in bytes, of HTTP POST requests from the Siebel Application Interface. |
| Seed File Location                   | Other Information > SWE         | Specify the location of the seed file. (This setting is available for future use.) |
| Monitor Sessions                     | Other Information > SWE         | Specify whether to determine whether to gather statistics on all of the current sessions and report them in the Siebel Application Interface statistics page. |
| Collect Application-Specific Statistics | Other Information > SWE     | Specify whether to enable the collection of application-specific statistics. |
Deploying the Siebel Application Interface

This procedure describes the steps for deploying a specific installed instance. You perform the same procedure for each installed instance of Siebel Application Interface. This task is part of “Configuring the Siebel Application Interface” on page 95.

This task is required both for new installations of the current release and for migration installations from a previous release, because the installation task does not migrate the prior configuration. You might also choose to install and deploy a new Siebel Application Interface.

Before you can deploy an installed instance of Siebel Application Interface, you must have already configured and deployed at least one Siebel Server, as described in “Configuring the Siebel Server” on page 89.

**NOTE:** After deployment, the Siebel Application Interface profile is in a read-write state. You can update configuration settings and save the profile to propagate the updates to the Siebel Application Interface.

**Related Topics**

"Additional Tasks for Migration Installations“ on page 57
"About Configuring Siebel Business Applications“ on page 63
"Running the Siebel Management Console” on page 67
"Creating a Siebel Application Interface Profile” on page 96

**To deploy the Siebel Application Interface**

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
2. Click Siebel Deployment in the navigation menu in the left panel.
3. Above the hierarchical display of deployment items in the overview area, click the plus sign (+) and then select Application Interface to add a new instance to your Siebel deployment.
   The Siebel Application Interface must already have been installed.
4. For Host Name:HTTPS Port, specify the host name and HTTPS redirect port for this instance of Siebel Application Interface. You specified this HTTPS redirect port during Siebel Application Interface installation.
5. For Profile, select the profile to use for this deployment of Siebel Application Interface.
   You created this profile in “Creating a Siebel Application Interface Profile” on page 96.
6. For Action, specify whether you will deploy this Siebel Application Interface or stage it for later deployment:
   - If you want to stage this Siebel Application Interface for later deployment, then click Staging.
   - If you want to deploy this Siebel Application Interface to your Siebel deployment, then click Deploy.
7. For Application Interface Node Name, specify the node name of this Siebel Application Interface.
8 For Application Interface Description, specify an optional description of this Siebel Application Interface.

9 To continue, click Submit. Otherwise, click Cancel.

After the configuration has been submitted, the state of this Siebel Application Interface deployment item changes to one of the following states, based on your selection in Step 6 on page 105: Staging or Deployment in Progress.

- If the deployment completes successfully, then, when you refresh the configuration, the state changes to Deployed. The Siebel Application Interface starts automatically.
- If the deployment fails, then the state changes to Deployment Failed.
- For a deployment in the Staging state, you can deploy it by either clicking the Deploy icon or by setting the Action to Deploy and resubmitting the deployment.

10 (Optional) View log data about this Siebel Application Interface deployment.

### Configuring the Siebel Enterprise Cache

Siebel Enterprise Cache, based on Oracle Coherence, provides a caching service for Siebel Business Applications. For more information about using Oracle Coherence, see product documentation on the Oracle Help Center.

To configure the Siebel Enterprise Cache, perform the following tasks:

1 "Creating a Siebel Enterprise Cache Server Profile" on page 107
2 "Deploying the Siebel Enterprise Cache Server" on page 112
3 "Creating a Siebel Enterprise Cache Client Profile" on page 114

**NOTE:** Siebel Enterprise Cache supports the Siebel Constraint Engine, which provides an integration with Oracle Advanced Constraint Technology for Siebel Product Configurator. (This integration is available as a developer preview.) In the current release, the Siebel Constraint Engine is the only feature that uses the Siebel Enterprise Cache. For more information about the Siebel Constraint Engine, see "Configuring the Siebel Constraint Engine" on page 117.

**NOTE:** You must configure SSL security settings the same for both Siebel Enterprise Cache Server and Siebel Enterprise Cache Client.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see "Supported Activities in Siebel Management Console" on page 72.
Creating a Siebel Enterprise Cache Server Profile

This procedure describes how to configure a Siebel Enterprise Cache Server profile. You can create multiple profiles, but you can deploy only one instance of Siebel Enterprise Cache Server in your Siebel deployment. This task is part of “Configuring the Siebel Enterprise Cache” on page 106.

Related Topics
“Running the Siebel Management Console” on page 67
“Deploying the Siebel Enterprise Cache Server” on page 112

To create a Siebel Enterprise Cache Server profile

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

2. Click Profiles in the navigation menu in the left panel, then click Enterprise Cache Server. Existing Siebel Enterprise Cache Server profiles are listed, if any.

3. Click the plus sign (+) at the top of the overview section to add a new Siebel Enterprise Cache Server profile, or click the Clone button to clone an existing profile.

4. Specify a name for the profile.

5. Specify additional settings, as shown in Table 9 on page 108.

6. When you have specified all applicable settings, click Submit to save your changes to the profile.
Configuration Settings for a Siebel Enterprise Cache Server Profile

Table 9 on page 108 describes the settings that are requested in the Siebel Management Console for configuring a new Siebel Enterprise Cache Server profile or modifying an existing Siebel Enterprise Cache Server profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field. Clicking the large plus sign (+) to the right of some options adds a new instance of a configurable item, which is represented in the second column using italics.

Most of the Siebel Enterprise Cache Server settings that you specify here correspond to Oracle Coherence settings. For more information about the Oracle Coherence settings, see Oracle Coherence documentation.

**NOTE:** Siebel CRM provides existing configuration settings for Siebel Enterprise Cache Server and Siebel Enterprise Cache Client that work with Siebel Constraint Engine. See also "Configuring the Siebel Constraint Engine" on page 117.

**NOTE:** You can click the Advanced button next to the Tango Coherence Override or Cache Configuration heading to edit the XML directly. You can use this as an alternative to specifying values for all of the individual fields in these sections.

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Level</td>
<td>(Not applicable)</td>
<td>Specify the log level. Select one of the following options: Fatal, Error, Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>Security Profile</td>
<td>(Not applicable)</td>
<td>Specify the security profile that the Siebel Enterprise Cache Server uses to secure any cache operations.</td>
</tr>
</tbody>
</table>
| Setup Coherence Server SSL          | Tango Coherence Override > Coherence Server SSL | Check this option to enable SSL security settings for Siebel Enterprise Cache Server.  
**NOTE:** You must configure SSL security settings the same for both Siebel Enterprise Cache Server and Siebel Enterprise Cache Client. |
| Key Store                           | Tango Coherence Override > Coherence Server SSL | Provide the location of the keystore file.  
This option appears if you checked the option Setup Coherence Server SSL. |
### Table 9. Settings for Configuring a Siebel Enterprise Cache Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Store Password</td>
<td>Tango Coherence Override &gt; Coherence Server SSL This option appears if you checked the option Setup Coherence Server SSL.</td>
<td>Provide the private key password for the keystore file.</td>
</tr>
<tr>
<td>Key Store Type</td>
<td>Tango Coherence Override &gt; Coherence Server SSL This option appears if you checked the option Setup Coherence Server SSL.</td>
<td>Specify the type of keystore instance you are using, such as a JKS file.</td>
</tr>
<tr>
<td>Cache Server TLS Port</td>
<td>Tango Coherence Override &gt; Coherence Server SSL</td>
<td>Specify the TLS port that will be used to access the cache via socket APIs.</td>
</tr>
<tr>
<td>Cluster Name</td>
<td>Tango Coherence Override</td>
<td>Provide the Siebel Enterprise Cache Server cluster name, such as SiebelEnterpriseCacheCluster.</td>
</tr>
<tr>
<td>Cache Name</td>
<td>Cache Configuration &gt; Cache Scheme Map &gt; Cache Name</td>
<td>Specify the name of this cache.</td>
</tr>
<tr>
<td>Scheme Name</td>
<td>Cache Configuration &gt; Cache Scheme Map &gt; Cache Name</td>
<td>Specify the scheme name for this cache.</td>
</tr>
<tr>
<td>Service Name</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Specifies the name of the service.</td>
</tr>
<tr>
<td>Maximum Thread Count</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Specifies the minimum number of daemon threads. Usage of daemon threads varies for different service types. If the value is zero or negative, then the service does not use daemon threads and all relevant tasks are performed on the service thread. Furthermore, if the value is negative, then tasks are performed on the caller’s thread where possible. Valid values are integers greater or equal to the Minimum Thread Count value.</td>
</tr>
</tbody>
</table>
### Table 9. Settings for Configuring a Siebel Enterprise Cache Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Thread Count</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Specifies the minimum number of daemon threads. Usage of daemon threads varies for different service types. If the value is zero or negative, then the service does not use daemon threads and all relevant tasks are performed on the service thread. Furthermore, if the value is negative, then tasks are performed on the caller's thread where possible. Valid values are integers less than or equal to the Maximum Thread Count value.</td>
</tr>
<tr>
<td>Cache Server Host</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Provide the Siebel Enterprise Cache Server host name.</td>
</tr>
<tr>
<td>Port</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Provide the Siebel Enterprise Cache Server service port.</td>
</tr>
<tr>
<td>Enable Cache Service Proxy</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Check this option to enable cache service proxy. If this option is disabled, then clients will not be able to access any proxied caches.</td>
</tr>
<tr>
<td>Auto Start Extended Service</td>
<td>Cache Configuration &gt; Proxy Scheme</td>
<td>Check this option to automatically start this service at a cluster node.</td>
</tr>
<tr>
<td>Distributed Scheme</td>
<td>Cache Configuration &gt; Scheme Configuration &gt; Distributed Scheme</td>
<td>Specify the scheme name for a distributed scheme.</td>
</tr>
</tbody>
</table>
| Type                                 | Cache Configuration > Scheme Configuration > Distributed Scheme | Specify the type of distributed scheme. Specify one of the following:  

- Reference Scheme  
- Backup Scheme |
| Distributed Reference Scheme         | Cache Configuration > Scheme Configuration > Distributed Scheme | Specify the scheme name that is configured in the distributed scheme section. It should be different from the scheme name provided in the Scheme Name field. |

---

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Table 9. Settings for Configuring a Siebel Enterprise Cache Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Name</td>
<td>Cache Configuration &gt; Scheme Configuration &gt; Distributed Scheme</td>
<td>Specify the name of the service that will manage caches created from this scheme.</td>
</tr>
<tr>
<td>Auto Start Distributed Service</td>
<td>Cache Configuration &gt; Scheme Configuration &gt; Distributed Scheme</td>
<td>Check this option to automatically start the cache services associated with this cache scheme at a cluster node.</td>
</tr>
<tr>
<td>Backup Scheme Configuration</td>
<td>Cache Configuration &gt; Scheme Configuration &gt; Distributed Scheme</td>
<td>Specify the scheme name already created in the Local Scheme section.</td>
</tr>
<tr>
<td>Local Scheme Name</td>
<td>Cache Configuration &gt; Local Scheme Configuration &gt; Local Scheme Name</td>
<td>Specify the scheme name of the local scheme.</td>
</tr>
<tr>
<td>Eviction Policy</td>
<td>Cache Configuration &gt; Local Scheme Configuration &gt; Local Scheme Name</td>
<td>Specify the type of eviction policy to use. Specify one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ <strong>Least Recently Used (LRU).</strong> Chooses which objects to evict based on how recently they were last used, evicting those that were not accessed for the longest period first.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ <strong>Least Frequently Used (LFU).</strong> Chooses which objects to evict based on how often they are being accessed, evicting those that are accessed least frequently first.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ <strong>Hybrid.</strong> Chooses which objects to evict based on the combination (weighted score) of how often and how recently they were accessed, evicting those that are accessed least frequently and those that were not accessed for the longest period first.</td>
</tr>
</tbody>
</table>
Deploying the Siebel Enterprise Cache Server

This procedure describes how to deploy the Siebel Enterprise Cache Server. You can deploy only one instance of Siebel Enterprise Cache Server in your Siebel deployment. This task is part of “Configuring the Siebel Enterprise Cache” on page 106.

This task is required for new installations of the current release, where you choose to use the Siebel Enterprise Cache. It is also required for the migration installation case, because, for the current release, this module is new and must be installed as a new installation.

NOTE: After deployment, the Siebel Enterprise Cache Server profile is in a read-write state. You can update configuration settings and redeploy the profile to propagate the updates to the Siebel Enterprise Cache Server.

**Related Topics**

“About Configuring Siebel Business Applications” on page 63
“Running the Siebel Management Console” on page 67
“Creating a Siebel Enterprise Cache Server Profile” on page 107

---

### Table 9. Settings for Configuring a Siebel Enterprise Cache Server Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Cache Size</td>
<td>Cache Configuration &gt; Local Scheme Configuration &gt; Local Scheme Name</td>
<td>Specify the maximum number of units that can be placed in the cache before pruning occurs.</td>
</tr>
</tbody>
</table>
| Cache Unit Calculator                | Cache Configuration > Local Scheme Configuration > Local Scheme Name | Specify the type of cache unit calculator. The cache unit calculator determines the cost, in units, of a given object. Specify one of the following:  
  ■ Binary  
  ■ Fixed |
| Cache Unit Factor                    | Cache Configuration > Local Scheme Configuration > Local Scheme Name | Specifies the factor by which the units (low units and high units) are adjusted. Using a cache unit calculator, for example, the factor of 1048576 could be used to count megabytes instead of bytes. |
| Cache Expiry                         | Cache Configuration > Local Scheme Configuration > Local Scheme Name | Specifies the amount of time from the last update that entries are kept by the cache before being marked as expired. |
To deploy the Siebel Enterprise Cache Server

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

2. Click Siebel Deployment in the navigation menu in the left panel.

3. Above the hierarchical display of deployment items in the overview area, click the plus sign (+) and then select Enterprise Cache Server to add a new instance to your Siebel deployment. Siebel Enterprise Cache must already have been installed.

4. For Host Name:HTTPS Port, specify the host name and HTTPS redirect port for this instance of Siebel Enterprise Cache Server. You specified this HTTPS redirect port during Siebel Enterprise Cache installation.

5. For Profile, select the profile to use for this deployment of Siebel Enterprise Cache Server. You created this profile in “Creating a Siebel Enterprise Cache Server Profile” on page 107.

6. For Action, specify whether you will deploy this Siebel Enterprise Cache Server or stage it for later deployment:
   - If you want to stage this Siebel Enterprise Cache Server for later deployment, then click Staging.
   - If you want to deploy this Siebel Enterprise Cache Server to your Siebel deployment, then click Deploy.

7. For Enterprise Cache Server Agent Node Name, specify the name of this Siebel Enterprise Cache Server node.

8. For Enterprise Cache Server Agent Description, specify an optional description of this Siebel Enterprise Cache Server node.

9. To continue, click Submit. Otherwise, click Cancel.

   After the configuration has been submitted, the state of this Siebel Enterprise Cache Server deployment item changes to one of the following states, based on your selection in Step 6 on page 113: Staging or Deployment in Progress:
   - If the deployment completes successfully, then the state changes to Deployed. The Siebel Enterprise Cache starts automatically.
   - If the deployment fails, then the state changes to Deployment Failed.
   - For a deployment in the Staging state, you can deploy it by either clicking the Deploy icon or by setting the Action to Deploy and resubmitting the deployment.

10. (Optional) View log data about this Siebel Enterprise Cache Server deployment.
Creating a Siebel Enterprise Cache Client Profile

This procedure describes how to configure a Siebel Enterprise Cache Client profile. You can create multiple profiles. This task is part of "Configuring the Siebel Enterprise Cache“ on page 106.

**NOTE:** Unlike most other types of profiles that you configure using Siebel Management Console, you configure but do not deploy a Siebel Enterprise Cache Client profile. Instead, you specify a defined profile of this type when you configure a Siebel CRM feature that uses the Siebel Enterprise Cache: in the current release, the Siebel Constraint Engine is the only feature that uses the Siebel Enterprise Cache.

**Related Topics**
"Running the Siebel Management Console” on page 67
"Creating a Siebel Enterprise Cache Client Profile” on page 114
"Configuring the Siebel Constraint Engine” on page 117

**To create a Siebel Enterprise Cache Client profile**

1. Run the Siebel Management Console, as described in "Starting the Siebel Management Console” on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Enterprise Cache Client. Existing Siebel Enterprise Cache Client profiles are listed, if any.
3. Click the plus sign (+) at the top of the overview section to add a new Siebel Enterprise Cache Client profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
5. Specify additional settings, as shown in Table 10 on page 115.
6. When you have specified all applicable settings, click Submit to save your changes to the profile.

**NOTE:** After you create the Siebel Enterprise Cache Client profile, the profile is in a read-write state. You can update configuration settings and save the profile. If you do so, then, to propagate the updates, you might also need to redeploy any dependent deployed entity (such as Siebel Constraint Engine).
Configuration Settings for a Siebel Enterprise Cache Client Profile

Table 10 on page 115 describes the settings that are requested in the Siebel Management Console for configuring a new Siebel Enterprise Cache Client profile or modifying an existing Siebel Enterprise Cache Client profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field.

Most of the Siebel Enterprise Cache Client settings that you specify here correspond to Oracle Coherence settings. For more information about Oracle Coherence settings, see Oracle Coherence documentation.

**NOTE:** Siebel CRM provides existing configuration settings for Siebel Enterprise Cache Server and Siebel Enterprise Cache Client that work with Siebel Constraint Engine. See also “Configuring the Siebel Constraint Engine” on page 117.

**NOTE:** You can click the Advanced button next to the Cache Client Configuration heading to edit the XML directly. You can use this as an alternative to specifying values for all of the individual fields in this section.

Table 10. Settings for Configuring a Siebel Enterprise Cache Client Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Level</td>
<td>(Not applicable)</td>
<td>Specify the log level. Select one of the following options: Fatal, Error, Warning, Debug, Trace, Information, All</td>
</tr>
<tr>
<td>Cache Name</td>
<td>Cache Client Configuration &gt; Cache Scheme Map</td>
<td>Specify the name of the cache that is used in the currently deployed Siebel Enterprise Cache Server.</td>
</tr>
<tr>
<td>Scheme Name</td>
<td>Cache Client Configuration &gt; Cache Scheme Map</td>
<td>Specify the cache scheme name.</td>
</tr>
</tbody>
</table>
| Setup Coherence Client SSL           | Cache Client Configuration > Coherence Client SSL | Check this option to enable SSL security settings for Siebel Enterprise Cache Client.  
**NOTE:** You must configure SSL security settings the same for both Siebel Enterprise Cache Server and Siebel Enterprise Cache Client. |
<p>| Key Store                            | Cache Client Configuration &gt; Coherence Client SSL | This option appears if you checked the option Setup Coherence Client SSL. Provide the location of the keystore file. |</p>
<table>
<thead>
<tr>
<th><strong>Setting in Siebel Management Console</strong></th>
<th><strong>Section (Under Create Profile)</strong></th>
<th><strong>Comment or Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Store Password</td>
<td>Cache Client Configuration &gt; Coherence Client SSL</td>
<td>This option appears if you checked the option Setup Coherence Client SSL. Provide the private key password for the keystore file.</td>
</tr>
<tr>
<td>Key Store Type</td>
<td>Cache Client Configuration &gt; Coherence Client SSL</td>
<td>This option appears if you checked the option Setup Coherence Client SSL. Specify the type of keystore instance you are using, such as a JKS file.</td>
</tr>
<tr>
<td>Scheme Name</td>
<td>Cache Client Configuration &gt; Scheme Parameters</td>
<td>Specify the cache scheme name.</td>
</tr>
<tr>
<td>Service Name</td>
<td>Cache Client Configuration &gt; Scheme Parameters</td>
<td>Specify the name of the service that will manage caches created from this scheme.</td>
</tr>
<tr>
<td>Cache Server Host</td>
<td>Cache Client Configuration &gt; TCP Configuration</td>
<td>Specify the Siebel Enterprise Cache Server host name.</td>
</tr>
<tr>
<td>Port</td>
<td>Cache Client Configuration &gt; TCP Configuration</td>
<td>Specify the Siebel Enterprise Cache Server service port.</td>
</tr>
<tr>
<td>Heartbeat Interval</td>
<td>Cache Client Configuration &gt; Outgoing Message Handling</td>
<td>Specify the interval (in seconds) between ping requests. A ping request is used to ensure the integrity of the connection.</td>
</tr>
<tr>
<td>Heartbeat Timeout</td>
<td>Cache Client Configuration &gt; Outgoing Message Handling</td>
<td>Specify the maximum amount of time (in seconds) to wait for a response to a ping request before declaring the underlying connection unusable.</td>
</tr>
<tr>
<td>Request Timeout</td>
<td>Cache Client Configuration &gt; Outgoing Message Handling</td>
<td>Specify the maximum amount of time (in seconds) to wait for a response message before declaring the underlying connection unusable.</td>
</tr>
</tbody>
</table>
Configuring the Siebel Constraint Engine

The Siebel Constraint Engine provides an integration with Oracle Advanced Constraint Technology for Siebel Product Configurator. This integration is available as a developer preview. For more information about the role of the Siebel Constraint Engine in the product configuration process, see Siebel Product Administration Guide. See also Article ID 2112562.1 on My Oracle Support. For more information about using Oracle Advanced Constraint Technology, see product documentation on the Oracle Help Center.

To configure the Siebel Constraint Engine, perform the following tasks:

1. “Creating a Siebel Constraint Engine Profile” on page 118
2. “Deploying the Siebel Constraint Engine” on page 119

**NOTE:** Before you can configure and deploy an installed instance of the Siebel Constraint Engine, you must have already configured and deployed a Siebel Enterprise Cache Server profile and created a Siebel Enterprise Cache Client profile, as described in “Configuring the Siebel Enterprise Cache” on page 106.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see “Supported Activities in Siebel Management Console” on page 72.

This task is a step in:

- “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
- “Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33
- “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

**Related Topics**

- “About Configuring Siebel Business Applications” on page 63
- “Running the Siebel Management Console” on page 67
- “Configuring the Siebel Enterprise Cache” on page 106

**Related Books**

- Siebel Security Guide
- Siebel Product Administration Guide

Article ID 2112562.1 on My Oracle Support
Oracle Advanced Constraint Technology documentation
Creating a Siebel Constraint Engine Profile

This procedure describes how to configure a Siebel Constraint Engine profile. You can create multiple profiles, but you can deploy only one instance of Siebel Constraint Engine in your Siebel deployment. This task is part of “Configuring the Siebel Constraint Engine” on page 117.

To create a Siebel Constraint Engine profile

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Constraint Engine. Existing Siebel Constraint Engine profiles are listed, if any.
3. Click the plus sign (+) at the top of the overview section to add a new Siebel Constraint Engine profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
5. Specify additional settings, as shown in Table 11 on page 118.
6. When you have specified all applicable settings, click Submit to save your changes to the profile.

Configuration Settings for a Siebel Constraint Engine Profile

Table 11 on page 118 lists the settings requested in the Siebel Management Console for configuring the Siebel Constraint Engine profile or modifying an existing Siebel Constraint Engine profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field.

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Cache Client Profile</td>
<td>Constraint Engine Settings</td>
<td>Specify the Siebel Enterprise Cache Client profile for the Siebel Constraint Engine to use.</td>
</tr>
</tbody>
</table>
Table 11. Settings for Configuring a Siebel Constraint Engine Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Profile</td>
<td>Constraint Engine Settings</td>
<td>Specify the name of the security profile that the Siebel Constraint Engine uses to pull authentication information from the Gateway.</td>
</tr>
<tr>
<td>Default Log Level</td>
<td>Constraint Engine Settings</td>
<td>Specify the log level. Select one of the following options: Fatal, Error, Warning, Debug, Trace, Information, All</td>
</tr>
</tbody>
</table>

**Deploying the Siebel Constraint Engine**

This procedure describes how to deploy the Siebel Constraint Engine. You can deploy only one instance of Siebel Constraint Engine in your Siebel deployment. This task is part of "Configuring the Siebel Constraint Engine" on page 117.

This task is required for new installations of the current release, where you choose to use the Siebel Constraint Engine. It is also required for the migration installation case, because, for the current release, this module is new and must be installed as a new installation.

**NOTE:** After deployment, the Siebel Constraint Engine profile is in a read-write state. You can update configuration settings and redeploy the profile to propagate the updates to the Siebel Constraint Engine. If you update the Siebel Enterprise Cache Client profile, then, to propagate the updates, you might also need to redeploy the Siebel Constraint Engine.

**Related Topics**

"About Configuring Siebel Business Applications” on page 63
"Running the Siebel Management Console” on page 67
"Creating a Siebel Enterprise Cache Client Profile” on page 114
"Creating a Siebel Constraint Engine Profile” on page 118

**To deploy the Siebel Constraint Engine**

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
2. Click Siebel Deployment in the navigation menu in the left panel.
3. Above the hierarchical display of deployment items in the overview area, click the plus sign (+) and then select Constraint Engine to add a new instance to your Siebel deployment.
   The Siebel Constraint Engine must already have been installed.
4. For Host Name:HTTPS Port, specify the host name and HTTPS redirect port for this instance of Siebel Constraint Engine. You specified this HTTPS redirect port during Siebel Constraint Engine installation.
5 For Profile, select the profile to use for this deployment of Siebel Constraint Engine. You created this profile in “Creating a Siebel Constraint Engine Profile” on page 118.

6 For Action, specify whether you will deploy this Siebel Constraint Engine or stage it for later deployment:
   - If you want to stage this Siebel Constraint Engine for later deployment, then click Staging.
   - If you want to deploy this Siebel Constraint Engine to your Siebel deployment, then click Deploy.

7 For Deployment Name, specify a deployment name for this installed instance of Siebel Constraint Engine.

8 To continue, click Submit. Otherwise, click Cancel.

After the configuration has been submitted, the state of this Siebel Constraint Engine deployment item changes to one of the following states, based on your selection in Step 6 on page 120: Staging or Deployment in Progress.

   - If the deployment completes successfully, then, when you refresh the configuration, the state changes to Deployed. The Siebel Constraint Engine starts automatically.
   - If the deployment fails, then the state changes to Deployment Failed.
   - For a deployment in the Staging state, you can deploy it by either clicking the Deploy icon or by setting the Action to Deploy and resubmitting the deployment.

9 (Optional) View log data about this Siebel Constraint Engine deployment.

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**Configuring the Siebel Migration Application**

The Siebel Migration application, a Web-based tool for migrating Siebel Repositories and seed data and performing related tasks, is provided with the Siebel Application Interface installation. A variety of configuration options are provided to support different ways of using the Siebel Migration application. For more information about the role of the Siebel Migration application in the overall deployment process, see *Siebel Database Upgrade Guide*.

To configure the Siebel Migration application, perform the following tasks:

1 “Creating a Siebel Migration Profile” on page 121
2 “Deploying the Siebel Migration Application” on page 124

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see “Supported Activities in Siebel Management Console” on page 72.
Creating a Siebel Migration Profile

This procedure describes how to configure a Siebel Migration profile. You can create multiple profiles. This task is part of "Configuring the Siebel Migration Application" on page 120.

For more information about the activities that you can perform in the Siebel Management Console, including viewing configuration log data, see "Supported Activities in Siebel Management Console" on page 72.

Related Topics
"Running the Siebel Management Console" on page 67
"Deploying the Siebel Migration Application" on page 124

To create a Siebel Migration profile

1. Run the Siebel Management Console, as described in "Starting the Siebel Management Console" on page 67.
2. Click Profiles in the navigation menu in the left panel, then click Migration.
   Existing Siebel Migration profiles are listed, if any.
3. Click the plus sign (+) at the top of the overview section to add a new Siebel Migration profile, or click the Clone button to clone an existing profile.
4. Specify a name for the profile.
5. Specify additional settings, as shown in Table 12 on page 122.
6. When you have specified all applicable settings, click Submit to save your changes to the profile.
Configuration Settings for a Siebel Migration Profile

Table 12 on page 122 lists the settings requested in the Siebel Management Console for configuring the Siebel Migration profile or modifying an existing Siebel Migration profile. Required fields display an asterisk (*) next to the field label. For most of the options, pointing to the option displays tooltip text that provides a brief description of the field.

Table 12. Settings for Configuring a Siebel Migration Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name</td>
<td>Database Information</td>
<td>Specify the host name for the database.</td>
</tr>
<tr>
<td>Port Number</td>
<td>Database Information</td>
<td>Specify the port number of the database.</td>
</tr>
<tr>
<td>Table Owner</td>
<td>Database Information</td>
<td>Specify the table owner of the database.</td>
</tr>
<tr>
<td>User Name</td>
<td>Database Information</td>
<td>Specify the name of the database user account used to connect to the database server. The account name and password must already exist in the database server.</td>
</tr>
<tr>
<td>Password</td>
<td>Database Information</td>
<td>Specify the password of the database user account. The account name and password must already exist in the database server.</td>
</tr>
</tbody>
</table>
| RDBMS Platform                      | Database Information            | Specify the RDBMS platform for the Siebel database. The options are:  
  ■ Oracle Database Enterprise Edition  
  ■ Microsoft SQL Server  
  ■ DB2 LUW  
  ■ DB2 z/OS |
| Service Name                        | Database Information            | Specify the database service name for an Oracle Database. |
| Database Instance                   | Database Information            | Specify the database instance name for an Microsoft SQL Server database. |
### Configuring the Siebel Migration Application

**Table 12. Settings for Configuring a Siebel Migration Profile**

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Name</td>
<td>Database Information</td>
<td>This option appears if you selected Microsoft SQL Server or DB2 LUW or DB2 z/OS for the RDBMS platform. Specify the database name.</td>
</tr>
<tr>
<td>Authentication Type</td>
<td>Authentication</td>
<td>Specify the authentication type for the Siebel Migration application. Specify one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Basic Authentication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Single Sign-On</td>
</tr>
<tr>
<td>Authentication Host</td>
<td>Authentication</td>
<td>Specify the Siebel authentication host for authenticating the Siebel Migration application user.</td>
</tr>
<tr>
<td>User Specification</td>
<td>Authentication</td>
<td>Provide the user specification for SSO authentication.</td>
</tr>
<tr>
<td>Assertion Specification</td>
<td>Authentication</td>
<td>Provide the assertion specification for SSO authentication.</td>
</tr>
<tr>
<td>Identity Provider Logoff URL</td>
<td>Authentication</td>
<td>Provide the identity provider logoff URL for SSO authentication.</td>
</tr>
<tr>
<td>Parameter Name for Identity Provider Logoff Return URL</td>
<td>Authentication</td>
<td>Provide the parameter name for identity provider logoff return URL for SSO authentication.</td>
</tr>
<tr>
<td>Log Level</td>
<td>Logging Information</td>
<td>Specify the logging level for the Siebel Migration application. Select one of the following options: Fatal, Error, Debug, Trace</td>
</tr>
<tr>
<td>Timeout</td>
<td>Other Information</td>
<td>Specify the session timeout in seconds for the Siebel Migration application.</td>
</tr>
</tbody>
</table>
Deploying the Siebel Migration Application

This procedure describes the steps for deploying the Siebel Migration application. This task is part of “Configuring the Siebel Migration Application” on page 120.

This task is required for new installations of the current release, where you choose to use the Siebel Migration application. It is also required for the migration installation case, because, for the current release, this application is new and there is no prior configuration to migrate.

NOTE: After deployment, the Siebel Migration profile is in a read-write state. You can update configuration settings and redeploy the profile to propagate the updates to the Siebel Migration application.

Related Topics
“Running the Siebel Management Console” on page 67
“Creating a Siebel Migration Profile” on page 121

To deploy the Siebel Migration application

1. Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

2. Click Siebel Deployment in the navigation menu in the left panel.

3. Above the hierarchical display of deployment items in the overview area, click the plus sign (+) and then select Migration to add a new instance to your Siebel deployment.

4. For Host Name:HTTPS Port, specify the host name and HTTPS redirect port for this instance of Siebel Application Interface. You specified this HTTPS redirect port during Siebel Application Interface installation.

5. For Profile, select the profile to use for this deployment of the Siebel Migration application. You created this profile in “Creating a Siebel Migration Profile” on page 121.

Table 12. Settings for Configuring a Siebel Migration Profile

<table>
<thead>
<tr>
<th>Setting in Siebel Management Console</th>
<th>Section (Under Create Profile)</th>
<th>Comment or Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep Time</td>
<td>Other Information</td>
<td>Specify the sleep time in seconds for the Siebel Migration application.</td>
</tr>
<tr>
<td>Siebel Application Name for Data Administration</td>
<td>Other Information</td>
<td>Specify the Siebel application name that needs to be embedded in the Siebel Migration application.</td>
</tr>
<tr>
<td>Language</td>
<td>Other Information</td>
<td>Specify the language of the Siebel application that needs to be embedded in the Siebel Migration application.</td>
</tr>
</tbody>
</table>
6 For Action, specify whether you will deploy the Siebel Migration application or stage it for later deployment:
   - If you want to stage the Siebel Migration application for later deployment, then click Staging.
   - If you want to deploy the Siebel Migration application to your Siebel deployment, then click Deploy.

7 For Siebel Migration Name, specify a deployment name for this instance of the Siebel Migration application.

8 For Siebel Migration Description, specify an optional description of this instance of the Siebel Migration application.

9 To continue, click Submit. Otherwise, click Cancel.

   After the configuration has been submitted, the state of this Siebel Migration deployment item changes to one of the following states, based on your selection in Step 6 on page 125: Staging or Deployment in Progress.
   - If the deployment completes successfully, then, when you refresh the configuration, the state changes to Deployed.
   - If the deployment fails, then the state changes to Deployment Failed.
   - For a deployment in the Staging state, you can deploy it by either clicking the Deploy icon or by setting the Action to Deploy and resubmitting the deployment.

10 (Optional) View log data about this Siebel Migration deployment.
5 Installing the Siebel Database on the RDBMS

This chapter describes running the Database Configuration Wizard to install the Siebel database and related tasks. This chapter is written for administrators who run the Database Configuration Wizard and for database administrators (DBAs) who perform related tasks on the relational database management system (RDBMS). It includes the following topics:

- About Installing the Siebel Database on page 127
- Creating Table Owner and Administrator Accounts on page 130
- Installing the Stored Procedures and User-Defined Functions on IBM DB2 on page 133
- Starting the Siebel Database Configuration Wizard on page 134
- Installing the Siebel Database on page 136
- Activating License Keys on page 142
- Setting Up Your Environment to Support Global Time Zone on page 143
- Populating the Siebel File System on page 144
- Importing a Siebel Repository Manually into the Siebel Database on page 145

**NOTE:** If your database is IBM DB2 for z/OS, then see *Implementing Siebel Business Applications on DB2 for z/OS* instead of this chapter. See also the relevant information in “Planning RDBMS Installation and Configuration” on page 286.

### About Installing the Siebel Database

**CAUTION:** In an upgrade environment, or in another environment where you have an existing Siebel database, you generally do not perform any of the tasks mentioned in this chapter. For more information, see “About Installing in Upgrade Environments” on page 282 and “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36.

The *Siebel database* on the RDBMS stores the data used by Siebel Business Applications. Siebel Server components (particularly Application Object Managers supporting Siebel Web Clients), Siebel Tools, and Siebel Developer Web Clients connect directly to the Siebel database and make changes in real time.

Siebel Mobile Web Clients download a subset of the server data to use locally. The mobile user periodically synchronizes the local database with the Siebel database through the Siebel Remote components on the Siebel Server. The synchronization process updates both the local database and the Siebel database.

The *Siebel Database Configuration Utilities* (also called the *Siebel Database Server*) refers to a set of files that you install on a Siebel Server computer, using the Siebel Enterprise Server installer. These files are accessed when you run the Database Configuration Wizard and the Siebel Upgrade Wizard in order to install and configure the Siebel database on the RDBMS.
NOTE: In the Database Configuration Wizard, the main task that you perform for a new deployment is called installing the Siebel database. Additional tasks described in this chapter are sometimes referred to by using the general phrase configuring the Siebel database.

For instructions on installing Database Configuration Utilities, Siebel Server, and other Siebel Enterprise Server components for the current release, Siebel CRM version 17.0, see Chapter 3, "Installing Siebel Business Applications Server Modules."

NOTE: This chapter assumes that you have already created the database instance. It also assumes that you have already installed the Database Configuration Utilities on the same computer as a Siebel Server, and in the same top-level installation directory. You install the Database Configuration Utilities only once, typically with the first Siebel Server that you install.

For a new deployment, you must install a Siebel Server and the Database Configuration Utilities on the same computer as the Siebel Gateway. For more information, see “Requirements for Siebel Gateway Authentication” on page 308. For information about the tasks that you must perform in the RDBMS before you install the Database Configuration Utilities, see Chapter 11, "Configuring the RDBMS."

The Database Configuration Utilities installed software has no runtime role in managing database operations for users running Siebel Business Applications. Some of the tasks that you can perform with the Database Configuration Wizard are for upgrades only, and are described in Siebel Database Upgrade Guide.

NOTE: After performing a new database installation, you must activate the license keys, as described in “Activating License Keys” on page 142. Then run the Siebel Management Console as described in this book.

This topic includes the following information:

■ “About Installing a Database” on page 128
■ “About Adding a Language to an Existing Database” on page 129
■ “About Database Updates for the Current Release” on page 129

Related Topics
"Installation-Related Changes for Siebel Innovation Pack 2017” on page 21
Chapter 3, “Installing Siebel Business Applications Server Modules”
Chapter 4, “Configuring Siebel Business Applications Server Modules”
"Activating License Keys” on page 142
Chapter 11, “Configuring the RDBMS”

About Installing a Database

When you choose Install Database from the Siebel Database Operation screen in the Database Configuration Wizard, the utility performs several tasks within the database instance that you have already created.
The Database Configuration Wizard is available on the computer on which you installed the Siebel Server and the Database Configuration Utilities.

Before installing the Siebel database, review all of the applicable requirements. The Install Database operation does the following:

1. Creates the Siebel schema. Tables and indexes are created in their respective specified tablespaces.
2. Inserts Siebel seed data specific to your database. Seed data is inserted for the primary language only. This task also installs views, packages, and procedures for your database.
3. Imports the Siebel Repository. The Repository is imported for the primary language only.
4. Sets system preferences.

This topic is part of "About Installing the Siebel Database" on page 127.

About Adding a Language to an Existing Database

Adding a language to an existing Siebel database installs seed data to support that language. After the database is initially installed with the primary language, each additional language must be installed separately using an add-language operation.

To add a new language to previously installed Siebel Business Applications, you must have installed its Siebel language pack on the installed Siebel Server, using the Siebel Enterprise Server installer. See also "Installing and Deploying Siebel Business Applications with Multiple Languages" on page 163.

After adding a language, you must import the Siebel Repository for this language. For more information, see "Importing a Siebel Repository Manually into the Siebel Database" on page 145.

After you have added a language to the Siebel database, your seed data is multilingual. You must enable the multilingual list of values (MLOV) capability for Siebel Business Applications, and you must enable individual LOVs associated with the language. For more information, see:

- Configuring Siebel Business Applications
- Siebel Global Deployment Guide

For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.

This topic is part of "About Installing the Siebel Database" on page 127.

About Database Updates for the Current Release

If you have installed the current release as a new installation, then you use the Database Configuration Wizard task to install a new Siebel database. This database contains schema changes, Siebel Repository changes, and seed data for Siebel CRM functionality through the current release.

If you install the current release as a migration installation, then you must use the Incremental Repository Merge feature to update your existing Siebel database to the current release level. For information about using Incremental Repository Merge, see Siebel Database Upgrade Guide.
Creating Table Owner and Administrator Accounts

Create the table owner and administrator accounts according to the guidelines provided for each database platform identified in this topic. These accounts are created by updating and running the grantusr.sql script. Record all of the relevant data, such as the table owner name and password, in the worksheets provided in Appendix A, "Siebel Deployment Planning Worksheet."

**NOTE:** For each applicable database platform, if you are planning to use Siebel Marketing, then also grant DROP TABLE, DROP INDEX, CREATE TABLE, and CREATE INDEX rights at the database level within the OLTP schema to the table owner or the database user ID used for Siebel Marketing. For more information, see *Siebel Marketing Installation and Administration Guide*.

**CAUTION:** It is strongly recommended not to change the name of the Siebel administrator account, SADMIN. This account must be created so that you can log in to Siebel Business Applications as the Siebel administrator. For information about changing the password for this account, see *Siebel Security Guide*.

**NOTE:** Before you execute grantusr.sql, confirm that this script will create all of the users that must be created before you install the Siebel database. Optionally, you can also modify the script to define the anonymous users that you will specify when configuring the Siebel Application Interface. For more information, see “Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318.

This topic contains the following information:

- “Running the grantusr.sql Script on an Oracle Database” on page 131
- “Running the grantusr.sql Script on IBM DB2” on page 132
Running the grantusr.sql Script on an Oracle Database

Before you install the Siebel database, your DBA must review, modify, and execute the grantusr.sql script.

The administrator executes grantusr.sql against the database instance to create the Siebel table owner account, the Siebel administrator account (default: SADMIN), the LDAPUSER account, and the role sse_role and to grant them appropriate privileges. The script also creates the default tablespace. The grantusr.sql script is located in the DBSRVR_ROOT/oracle subdirectory.

After executing grantusr.sql, the DBA must manually create all of the additional tablespaces (for data or indexes) that you require in your Siebel database. To do this, use commands similar to the existing ALTER USER command defined in grantusr.sql for creating the default tablespace. Use commands similar to the following:

```
ALTER USER TABLE_OWNER quota unlimited on tablespace_name;
```

where:
- `TABLE_OWNER` is the name of the Siebel table owner account.
- `tablespace_name` is the name that you are using for each particular tablespace. If it is necessary, then the quota value can be adjusted to an appropriate value for each tablespace.

The grantusr.sql script performs the following functions:
- Creates the role sse_role and grants CREATE SESSION privilege to this role.
- Creates the Siebel table owner account and grants other appropriate privileges to this account.
- Creates the accounts SADMIN (the Siebel administrator) and LDAPUSER and grants the role sse_role to them.
- Creates the default tablespace.

Passwords are prompted for by the script, rather than defined within the script.

The length and allowable characters for the user name and password depend on the rules of your underlying RDBMS platform. For more information, see Oracle Database documentation.

This topic is part of “Creating Table Owner and Administrator Accounts” on page 130.

To run the grantusr.sql script on an Oracle Database

1. Execute the grantusr.sql script from SQL*Plus, using an account with DBA privileges, and using the following command:

   ```
   @/$SIEBEL_ROOT/dbsrvr/oracle/grantusr.sql
   ```

   **NOTE:** You must specify the full path to the grantusr.sql file.

2. Enter the tablespace name listed in Appendix A, “Siebel Deployment Planning Worksheet.”
Running the grantusr.sql Script on IBM DB2

Before you install the Siebel database, your DBA must manually create the Siebel table owner account, the Siebel administrator account (default: SADMIN), and the sse_role group. The DBA must then add the Siebel administrator account to the sse_role group at the operating system level.

You can add users to the sse_role group and permit them to use administrative commands to start, stop or otherwise administer the Siebel Server or components. However, you must change the permissions on the directory to enable write access, using the following command:

```bash
chmod -R 775 $SIEBEL_ROOT
```

**NOTE:** On Oracle Solaris, the sse_role group cannot be created using `admintool`, due to the use of an underscore in the name. Instead, use the command `groupadd sse_role` to create the sse_role group. Ignore the warning: `groupadd: sse_role name should be all lower case or numeric`.

Before you install the Siebel database, execute the grantusr.sql script against your database server to grant the appropriate privileges to these users. The grantusr.sql script is located in the `DBSRVR_ROOT/db2udb` subdirectory.

Your DBA must review and execute this script, which performs the following functions:

- Grants the appropriate permissions to the Siebel table owner account that will own all of the database objects for your Siebel deployment.
- Creates a role (sse_role) with CREATE SESSION privileges.

You cannot create the LDAPUSER account by running grantusr.sql. This account must belong to the sse_role group and must be created by the DBA or the UNIX network administrator, as appropriate. For more information about authentication using the LDAP security adapter, see *Siebel Security Guide*.

This topic is part of “Creating Table Owner and Administrator Accounts” on page 130.

**To run the grantusr.sql script on IBM DB2**

1. Execute the grantusr.sql script, using an account with DBA privileges.
   - The usual DB2 System Administration account is called `db2inst1` for this procedure.

2. Enter the following commands:
   ```bash
   db2 connect to DB2database_alias user instance_owner_username using password
   db2 -vf $SIEBEL_ROOT/dbsrvr/db2udb/grantusr.sql
   ```
   where:
   - `DB2database_alias` is the DB2 alias that you use
   - `instance_owner_username` is the login ID of the database instance owner
   - `password` is the password for the database instance owner
   - `$SIEBEL_ROOT` is the full path to the Siebel root directory
   
   The script prompts you for the default tablespace in which your Siebel objects are to be created.
3 Enter the tablespace name that you recorded in the copy that you made of Appendix A, “Siebel Deployment Planning Worksheet.”

The length and allowable characters of the account names and passwords depend on the rules of your underlying RDBMS platform. For more information, see IBM DB2 documentation.

Before you install the Siebel database, see “Installing the Stored Procedures and User-Defined Functions on IBM DB2” on page 133.

**Installing the Stored Procedures and User-Defined Functions on IBM DB2**

On IBM DB2, after installing the Database Configuration Utilities, you must copy stored procedures and user-defined functions (UDFs) from the Database Configuration Utilities installation to the DB2 database server.

Any method that transfers the necessary files to the correct location on the database server is acceptable. To copy the stored procedure code, complete the procedure that follows. Use the steps appropriate to the operating systems for the Database Configuration Utilities and the RDBMS. For information about how to perform basic IBM DB2 tasks, see the Quick Beginnings guide from IBM.

**To copy and install the stored procedures and user-defined functions**

1 Log on to the Siebel Server computer on which you installed the Database Configuration Utilities.

2 Navigate to the following subdirectory in the Database Configuration Utilities installation directory:

   `DBSRVR_ROOT/db2udb/siebproc/DBSRVR_OS`

   where:
   - `DBSRVR_ROOT` is the Database Configuration Utilities component subdirectory of your Siebel Business Applications installation directory (`$SIEBEL_ROOT/dbsrvr`)
   - `DBSRVR_OS` is the string corresponding to the operating system your database server (RDBMS) runs on, such as `AIX`, `HPUX`, `LINUX`, or `SOLARIS`

3 Copy the file `siebproc` to the `function` subdirectory within the DB2 instance directory on the RDBMS computer where DB2 is installed.

For example, on AIX, this location might be `$INST_HOME/sqllib/function`.

Permissions for `siebproc` must be `-rw-r-----` (read-write for the owner, read for the group, and neither read nor write for all others). The owner of the file must be the instance owner, and the group must be the group to which the instance owner belongs.

For a 64-bit DB2 database, do one of the following instead:

- For a 64-bit DB2 database running on Itanium architecture, copy the file `siebproc64` to the `SQLibrary/FUNCTION` directory, and rename it to `siebproc`. 

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For a 64-bit DB2 database running on X64 architecture, copy the file siebprocEMT64 to the SQLLIB/TEST directory, and rename it to siebproc.

Proceed to “Installing the Siebel Database” on page 136.

Starting the Siebel Database Configuration Wizard

Use the following procedure to start the Siebel Database Configuration Wizard. You start the wizard from the command line.

As part of the following procedure, you must enter the necessary command to source one of the following environment setup files, as appropriate, to configure or validate the environment.

- **dbenv.csh** or **dbenv.sh**. Before you run the Database Configuration Wizard, you must source either dbenv.csh (for C shell) or dbenv.sh (for Bourne or Korn shell). Before you can source one of these files, you must create them by running the script CreateDbSrvrEnvScript. These environment files are created in the $SIEBSRVR_ROOT installation directory. For more information, see “Installing the Siebel Database” on page 136.

To start the Siebel Database Configuration Wizard

1. Open a shell window.
2. Source an environment setup file, as appropriate,
   - Before you run the Siebel Database Configuration Wizard, source either dbenv.csh (for C shell) or dbenv.sh (for Bourne or Korn shell). For more information, see “Installing the Siebel Database” on page 136.
3. Navigate to the config subdirectory within your $SIEBEL_ROOT directory. For Siebel CRM version 17.0:
   
   Navigate to a directory like the following, on the Siebel Server computer: /Siebel/config.
   
   To start the Database Configuration Wizard to configure in GUI mode, go to the next step. Use the same commands if you are generating a response file for unattended configuration. To perform an unattended configuration, go to Step 5 on page 135.
4. Enter a command similar to the following to start the Database Configuration Wizard:

   ```
   install_path/config/config -mode dbsvr
   ```

   In this command, `install_path` is the installation path for the installed Siebel module, such as:

   ```
   /Siebel/config/config -mode dbsvr
   ```

   Additional command-line options that you can use are:

   - **-skipValidation**. Specifies that no validation should be performed of user input. You can use this flag when saving a response file for an unattended configuration, or when previewing wizard screens.
- **-verbose.** Specifies that more details should be included in configuration log files.

**NOTE:** Using the -verbose option is recommended in order to log information about certain issues that might affect your configuration tasks. For example, various 32-bit libraries are required for successful configuration. When you use the -verbose option to generate a finer level of granularity in log messages, the Database Configuration Wizard might log, for example, that a particular required 32-bit library is missing. For more information about required libraries, see the Certifications tab on My Oracle Support.

For an unattended configuration, go to the next step. Otherwise, go to Step 6 on page 135.

**5** For an unattended configuration, you save and later execute a response file for configuring the Siebel database. Do one of the following:

- If you are generating a response file, then go to Step 6 on page 135 and continue the configuration process. In the summary screen, choose the option to save a configuration file, then cancel the Database Configuration Wizard. Then, to perform the unattended configuration of the same component, restart the wizard as described in the next paragraph.

- If you are executing a response file that you saved in a previous configuration session, then start the wizard using the -responseFile option, specifying the name of the response file to execute. Use a command similar to the following:

  \[\text{install_path/config/config -mode dbsrvr -responseFile file_name}\]

  where:

  - **install_path** is the installation path for the installed Siebel module (see examples in Step 4 on page 134)
  - **file_name** is the name of the response file that you are executing

**NOTE:** For a command like this, the response file would have been saved in a previous configuration session. In unattended mode, wizard screens that would normally display are not displayed, because the applicable data is already stored in the response file.

If you are generating a response file, then go to the next step. If you are executing a response file, then the Database Configuration Wizard runs in unattended mode and completes configuration.

**6** Respond to each prompt in the Database Configuration Wizard, then click Next to go to the next screen or to complete the configuration.

See “Installing the Siebel Database” on page 136.

**NOTE:** You can click Cancel to exit the Database Configuration Wizard before you complete the configuration.

After you specify or confirm all of your selections, the summary screen appears.

**7** In the summary screen, do one of the following:

- Click Next again to complete the configuration. Go to the next step.

- Optionally, save a response file in this screen, to use in an unattended configuration, then click Cancel to exit the Database Configuration Wizard without completing configuration.
Installing the Siebel Database

This topic describes how to install the Siebel database on the RDBMS. This task is a step in “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30. (Also perform all of the other applicable tasks in this chapter.)

NOTE: As of Siebel Innovation Pack 2017, installing a new database creates an ODBC data source name that allows you to use database authentication when you run Siebel Management Console, as described in Chapter 4, “Configuring Siebel Business Applications Server Modules.”

To install Siebel database components

1. Review “About Installing the Siebel Database” on page 127 and “Starting the Siebel Database Configuration Wizard” on page 134.

2. Before you run the Database Configuration Wizard for the first time, run the CreateDbSrvrEnvScript script to generate the environment setup files dbenv.csh and dbenv.sh.

   CreateDbSrvrEnvScript is located in the directory $SIEBSRVR_ROOT/install_script/install.

   Run CreateDbSrvrEnvScript from this location by using the following command:

   ```bash
   ./CreateDbSrvrEnvScript Siebel_Root_Parent_Directory LANG DB_Platform
   ```

   where:

   - `Siebel_Root_Parent_Directory` is the top-level Siebel Enterprise Server installation directory.
   - `LANG` is the three-letter code for the primary language for the Siebel database that you will install; for example, ITA for Italian.
   - `DB_Platform` is Oracle, Db2Udb, or Db2.390.

   For example:

   ```bash
   ./CreateDbSrvrEnvScript /siebel ITA Oracle
   ```

   The dbenv.csh and dbenv.sh environment setup files are created in the Siebel Server installation directory.

3. Open a shell window.

4. Navigate to the $SIEBSRVR_ROOT directory and source the environment file by using one of the following commands, depending on the type of shell that you use. Perform this step each time that you run the Database Configuration Wizard. You must have created this file first, by using the script CreateDbSrvrEnvScript, as described in Step 2 on page 136.

   For C shell:

   ```bash
   source dbenv.csh
   ```
Installing the Siebel Database on the RDBMS

Bourne or Korn shell

. ./dbenv.sh

**TIP:** Make sure that there is a space between the initial period and . ./dbenv.sh.

In this path, $SIEBSRVR_ROOT is the location of the Siebel Server root directory. For example, the directory might be /export/home/Siebel/siebsrvr.

5 Verify whether the values for SIEBEL_ROOT and LANGUAGE are correctly set or are empty by entering:

```
env
```

If the variables are incorrect or missing, then reset them using one of the following commands, as appropriate to the shell that you use.

For example, the SIEBEL_ROOT value might resemble /export/home/Siebel/siebsrvr, while the value for LANGUAGE might be ENU, FRA, JPN, CHS, or another code representing the language in which you are running the Database Configuration Wizard.

C shell

```
setenv SIEBEL_ROOT New_Value
setenv LANGUAGE New_Value
```

Bourne or Korn shell

```
export SIEBEL_ROOT=New_Value
export LANGUAGE=New_Value
```

6 Navigate to the config subdirectory of the $SIEBEL_ROOT directory. For example, navigate to a location like /Siebel/config.

7 Start the Database Configuration Wizard, as described in "Starting the Siebel Database Configuration Wizard" on page 134. Enter a command similar to the following:

```
install_path/config/config -mode dbsrvr
```

In this path, install_path is the installation path for the installed Siebel Enterprise Server software.

The Database Configuration Wizard validates the existence of the $SIEBEL_ROOT directory.

8 Specify the following, and click Next:

**Siebel Server Directory.** Specify the existing installation location of Siebel Server. This location is also referred to as the $SIEBSRVR_ROOT directory. For example, this directory might be /export/home/Siebel/siebsrvr.

**Siebel Database Server Directory.** Specify the existing installation location of Siebel Database Configuration Utilities. This location is also referred to as the DBSRVR_ROOT directory. For example, this directory might be /export/home/Siebel/dbsrvr.
9 On the RDBMS Platform screen, select one of the following platforms, and click Next:
   IBM DB2 UDB for Linux UNIX Windows
   IBM DB2 UDB for z/OS
   Oracle Database Enterprise Edition

10 On the Siebel Database Operation screen, select Install Database from the list, and click Next.

11 On the Select Installation Operation screen, select Install Siebel Database to install a new Siebel
database, or select Add a Language to an Existing Siebel Database, and then click Next.

   The Install Siebel Database option creates the Siebel schema and inserts seed data and Siebel
Repository data for the primary language at the end of the Configuration Wizard session.

   If you instead selected Add a Language to an Existing Siebel Database, then go to Step 20 on
   page 139. You must have included the language when you installed the Siebel Server and
   Database Configuration Utilities. For more information, see “Installing and Deploying Siebel
   Business Applications with Multiple Languages” on page 163.

12 On the next screen, confirm that you want to install a new Siebel database, or indicate that you
already have a Siebel database.

13 On the Siebel User/Role Creation screen, confirm that you (or a database administrator) have
already run the grantusr.sql script to set up table owner and administrator accounts.

   **NOTE:** The table owner and administrator accounts must be in place or you will not be able to
complete the installation of the tables, indexes, and seed data in the Siebel database. For more
information, see “Creating Table Owner and Administrator Accounts” on page 130.

   ■ If you already ran grantusr.sql, then select the corresponding option, and click Next.
   ■ If you did not already run grantusr.sql, then exit the Database Configuration Wizard, and run
   the script now. When the script has finished executing, restart the Database Configuration
   Wizard.

14 (Oracle Database only) Specify the following, and click Next:

   **Siebel Database Table Owner.** Type the name of the Siebel database table owner or the
account that will own the Siebel objects.

   **Oracle SQLNet Connect String.** Provide the name of the Oracle schema qualifier or table owner
name and the SQLNet connect string for Oracle Database.

15 (Microsoft SQL Server only) Specify the following, and click Next:

   **Microsoft SQL Server Host Name.** Provide the host name of the computer running Microsoft
SQL Server. This value must not be left empty.

   **Microsoft SQL Server Database Name.** Provide the name of the Microsoft SQL Server
database.

16 (IBM DB2 or IBM DB2 for z/OS only) Specify the following, and click Next:

   **DB2 Instance Path.** Provide the IBM DB2 client installation path, such as `/home/sblq1`, where
`sblq1` contains the `sqllib` subdirectory.
17 (IBM DB2 only) Specify the following, and click Next:

**Siebel Database Table Owner.** Type the name of the Siebel database table owner or the account that will own the Siebel objects.

**IBM DB2 Database Alias.** Provide the name of the IBM DB2 UDB schema qualifier or table owner name and the database alias for IBM DB2.

18 (IBM DB2 for z/OS only) Specify the following, and click Next:

**Siebel Database Table Owner.** Type the name of the Siebel database table owner or the account that will own the Siebel objects.

**IBM DB2 Database Alias.** Provide the name of the IBM DB2 UDB schema qualifier or table owner name and the database alias for IBM DB2.

**Current IBM DB2 SQL ID / Group Name.** Provide the name of the IBM DB2 UDB SQL ID or group name.

19 On the Database Encoding screen, identify the appropriate database encoding method, and click Next:

- **UNICODE Database**
  - **Non-UNICODE Database**

**CAUTION:** Choose the correct option for your database to prevent installing the wrong data types. The database cannot create Unicode data types on a non-Unicode page setting, so check this setting carefully before choosing this option.

**NOTE:** Before you select languages in the next two steps, review the information about code pages in “Planning RDBMS Installation and Configuration” on page 286.

20 On the Base Language screen, specify which language serves as the primary language (base language) for the Siebel database.

**NOTE:** If you installed a single Siebel language pack on the Siebel Server where you also installed Database Configuration Utilities, then that language is assumed for a new database installation. Neither the Base Language nor the Language Selection screen appears. Go to Step 22 on page 140.

The languages listed in this screen are those for which you previously installed Siebel language packs on the Siebel Server where you also installed Database Configuration Utilities. Do one of the following, and click Next:

- If you are installing a new Siebel database, then specify the language that will be the primary language. Seed data and Siebel Repository data will be installed for this language. Go to Step 22 on page 140. (The Language Selection screen does not appear in this case.)

- If you are adding a language to an existing Siebel database, then specify the language that you already installed as the primary language. Go to the next step to specify the additional language to install, from the Language Selection screen.
21 (Add Language case only) On the Language Selection screen, select the language that you want to install in the Siebel database, for an Add Language operation.

**NOTE:** This screen does not appear for a new database install case. Go to the next step.

The languages listed in this screen are those for which you previously installed Siebel language packs on the Siebel Server where you also installed Database Configuration Utilities.

Select the language that you want to add. Seed data will be installed for this language. You must import the Siebel Repository for this language separately (using the Add Language to an Existing Repository task), as described in “Importing a Siebel Repository Manually into the Siebel Database” on page 145.

Some of the remaining screens do not apply for an add-language operation. Go to the next applicable step.

22 Specify the following, and click Next:

- **Database User Name.** Type the user name of the Siebel administrator; for example, `sadmin`.
- **Database Password.** Type the password for the Siebel administrator.
- **Database Password (confirm).** Retype the password to confirm it.

23 Specify the following, and click Next:

- **Database Table Owner.** Type the name of the Siebel database table owner or the account that will own the Siebel objects.
- **Database Table Owner Password.** Type the password for the Siebel database table owner.
- **Database Table Owner Password (confirm).** Retype the password to confirm it.

24 (Oracle Database only) On the Register External Oracle DB ODBC Driver screen, specify this option if you will use the Siebel Connector for Oracle Applications to exchange data with your back office system, and your back office system stores data in an Oracle Database.

25 (IBM DB2 only) Specify the following, and click Next:

- **Index Table Space Name.** Type the name for your index tablespace; for example, `SBL_INDX`. (Tablespace names must not contain spaces; underscores are allowed.)
- **4K Table Space Name.** Type the name for your 4-KB tablespace; for example, `TBS_4K`. (Tablespace names must not contain spaces; underscores are allowed.)
- **16K Table Space Name.** Type the name for your 16-KB tablespace; for example, `TBS_16K`. (Tablespace names must not contain spaces; underscores are allowed.)
- **32K Table Space Name.** Type the name for your 32-KB tablespace; for example, `TBS_32K`. (Tablespace names must not contain spaces; underscores are allowed.)

26 (Oracle Database only) Specify the following, and click Next:

- **Index Table Space Name.** Type the name for your index tablespace; for example, `INDEX01`. (Tablespace names must not contain spaces; underscores are allowed.)
- **Table Space Name.** Type the name for your tablespace; for example, `DATA01`. (Tablespace names must not contain spaces; underscores are allowed.)
27 (Oracle Database only) On the Siebel License Key Option screen, specify that you will provide the license key data later, and click Next.

In the current release, the license keys for Siebel CRM base applications must be activated using the License Key Activation utility, as described in "Activating License Keys" on page 142.

28 (Oracle Database only) On the Oracle Parallel Index screen, specify the statement describing your database environment, and click Next:

- Does not use the Oracle Parallel Indexing option
- Uses the Oracle Parallel Indexing option

If you have a single-CPU environment, then choose the first option. If you have a multiple-CPU environment, then choose the first or second option, depending on whether you are running your Oracle Database with parallel indexing on.

29 Specify the following, and click Next:

**Security Group ID / Grantee.** Type the name for your security group. Specify SSE_ROLE.

30 On the Log Output Directory screen, accept the default log directory or enter a new directory name, and click Next.

By default, logging occurs in the $SIEBSRVR_ROOT/log/operation/output directory. In this path, operation corresponds to the operation that you are performing, such as install for an Install Database operation or install_lang for an Add Language operation.

Click Help to view the following message, which asks if you are ready to apply configuration changes to the Siebel database now, using the Siebel Upgrade Wizard, or will do so later:

```
Configuration is complete: your output will be saved under $SiebelRoot/siebsrvr/bin/master_<process>.ucf. Would you like to deploy the process you configured to the database now or later?
```

**NOTE:** Check the Siebel Release Notes on My Oracle Support for the current release. If this document describes any tasks that you must perform to modify the generated SQL files, then modify the generated SQL files as necessary before you execute the SQL in the Siebel Upgrade Wizard.

31 Choose one of the following, and click Next:

- **Yes apply configuration changes now.** Choose this option if you want the generated SQL files to be executed in the Siebel Upgrade Wizard.

- **No I will apply configuration changes later.** Choose this option if you do not want the generated SQL files to be executed in the Siebel Upgrade Wizard. In this case, you must run the Upgrade Wizard manually at a later time in order to execute the generated SQL files.

If you choose to apply configuration changes later, then the command line to apply the configuration later is:

```
$SIEBEL_ROOT/siebsrvr/bin/srvrupgwiz /m master_operation.ucf
```

For the purposes of this procedure, operation is either install or install_lang.
Review the values that you entered on the previous screens in the Database Configuration Wizard:

- If you have to change any values, then click Back and Next to access the screens on which to change entries, and then to return to this screen.
- Alternatively, you can click Cancel to cancel the Database Configuration Wizard session, then restart the wizard and enter different values.
- When you have verified your input, click Next. Doing so generates SQL files that you will then apply to the database. When all of the SQL files have been generated, a message appears, stating *The configuration changes were applied successfully*. Click OK.

If you chose No in *Step 31 on page 141*, then the Siebel Upgrade Wizard does not appear. You must run it manually, after reviewing the generated SQL files.

If you chose Yes in *Step 31 on page 141*, then the Siebel Upgrade Wizard appears.

**NOTE:** When you run the Siebel Upgrade Wizard, if a program or system error occurs, then you can rerun the wizard, starting at the point at which the wizard failed. For more information, see *Siebel Database Upgrade Guide*.

When the Siebel Upgrade Wizard finishes running, the Siebel Upgrade Wizard Complete screen appears. You have now finished installing the Siebel database components.

After the Siebel Upgrade Wizard has finished running, click Exit to exit the Database Configuration Wizard.

**Related Topics**

- “About Installing the Siebel Database” on page 127
- “Verifying Installation for the Siebel Database” on page 239
- “Troubleshooting Installation for the Siebel Database” on page 242

**Activating License Keys**

License keys for Siebel CRM base applications that are provided in seed data in the Siebel database for the current release, or that were provided in prior releases, are inactive by default. License keys entered by customers for previous releases are unchanged. The License Key Activation utility is provided for activating or deactivating the license keys that you require. You run this utility to add any additional license keys after installing a new Siebel database, running Incremental Repository Merge (for migration installations), or completing a full database upgrade.

You can find license key information for Siebel Business Applications at Oracle’s license codes site. For the Siebel license keys, see

http://licensecodes.oracle.com/siebel.html

The License Key Activation utility is supported on all operating systems and databases for Siebel Business Applications.

This task is a step in “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30.
Installing the Siebel Database on the RDBMS  ■ Setting Up Your Environment to Support Global Time Zone

To start the License Key Activation utility
1. On the computer where you installed Siebel Server, navigate to the following location:
   `SIEBSRVR_ROOT\bin`
2. Run the following program, according to your operating system:
   - Microsoft Windows: `licensekeymodule.bat`
   - UNIX: `licensekeymodule.sh`
3. Enter valid data for the following fields:
   - **Siebel Server Location.** The installation path for this Siebel Server.
   - **ODBC DSN.** The ODBC data source for the Siebel database.
   - **Table Owner.** The table owner for the Siebel database.
   - **Username.** The user name for logging into the Siebel database.
   - **Password.** The password for this user.
   - **DB Platform.** The RDBMS platform, either ORACLE, DB2UDB, DB2390, or MSSQL.
   - **Log folder.** The folder in which the log file `licenseKeys.log` is created. This log file shows database connection information for troubleshooting purposes, and lists all of the license keys that were activated or deactivated in each session.
4. Click Login.
   The license key activation screen appears, which lists Siebel CRM license keys.
5. For each license key module whose activation status you want to change, click the Active Flag check box to activate or deactivate this license key.
6. To apply your selections to the Siebel database, click Apply. Or, to reset any changes you have made in this screen, or since you last clicked Apply, click Reset.
   **CAUTION:** After you have clicked Apply, the Reset button does not reset activation settings to their original state. However, you can change the activation status and click Apply again.
7. To exit the utility, click the X in the top right corner.

Related Books
Siebel Database Upgrade Guide

Setting Up Your Environment to Support Global Time Zone

Global deployments typically span multiple time zones, making it difficult to manage time-sensitive information that must be exchanged among customers and employees working around the world. You can use the Global Time Zone feature to monitor the transfer of tasks between sites in different time zones.
The Global Time Zone feature converts and stores date and time data, using the Universal Time Coordinated (UTC) standard. UTC is equivalent to Greenwich Mean Time, but without daylight savings time.

**CAUTION:** Oracle does not support new Siebel CRM deployments that do not use UTC. For existing deployments, if you do not want to deploy with UTC or are not ready to do so, then you must review the documentation for this feature, which is primarily located in *Siebel Global Deployment Guide*.

Make sure that the time is synchronized on all of your computers, by using a common NNTP server for time synchronization.

If you intend to operate your deployment with the Global Time Zone feature enabled, then you can optionally set the operating system of your database servers to UTC time, or its equivalent.

For restrictions on using the Global Time Zone feature on IBM DB2 for z/OS, see *Implementing Siebel Business Applications on DB2 for z/OS*.

**NOTE:** The Global Time Zone parameter (Universal Time Coordinated system preference) is enabled (set to TRUE) by default. If you do not want to enable the Global Time Zone feature, then you must reset this system preference to FALSE by navigating to the Administration - Application screen, and then the System Preferences view.

---

### Populating the Siebel File System

After you complete installing Database Configuration Utilities and installing the Siebel database, you must populate the Siebel File System. Specific files needed to use the Siebel File System, such as correspondence templates and Siebel Marketing files, are provided with the Database Configuration Utilities software. A subdirectory called `files` is created when you install the Database Configuration Utilities.

The Siebel administrator must populate the `att` directory in the File System with these files after installing the Database Configuration Utilities, and before running the Siebel Web Client.

For detailed information about creating the Siebel File System, including setting the necessary permissions, see “Creating the Siebel File System” on page 298.

**To populate the Siebel File System directory**

1. Copy the appropriate files from the `files` subdirectory of the Database Configuration Utilities software to the `att` subdirectory of the Siebel File System.
2. Verify that the files are in the correct location.
Installing the Siebel database as described in "Installing the Siebel Database" on page 136 automatically imports the Siebel Repository for the primary language (only). For each nonprimary language in a multilingual deployment, a separate step to manually import the Siebel Repository is needed.

The content in this topic is provided for customers with multilingual deployments or who have some reason to manually import a Siebel Repository.

You can import the Siebel Repository using the Database Configuration Wizard. This task populates the Siebel Repository tables in the Siebel database with new object definitions. You import the Siebel Repository separately for each nonprimary language in a multilingual deployment. This task does not apply to the Siebel Repository for the primary language.

Regardless of how many Siebel Business Applications that you are using (for example, Siebel Call Center, Siebel Sales, Siebel Service, and Siebel Marketing), you load the Siebel Repository tables only once for each language.

NOTE: When you import data into the Siebel Repository tables, a commit is performed once for each table into which Siebel Repository data is imported. Alternatively, you can adjust the commit frequency by including the command-line option /Z size_of_array when the repimexp utility is invoked. The transaction will not be committed until all of the data in the array has been inserted. (However, if the table contains fewer records than the specified array size would allow, then the transaction is committed after all of the data has been inserted.)

Some steps in the procedure in this topic pertain to the task of adding a language to an existing Siebel Repository, also using the Database Configuration Wizard. By adding a new language to a Siebel Repository, you populate rows of localized user interface strings for Siebel Repository objects, which allows Siebel Business Applications to display the UI in the new language.

In order to add a new language to an existing Siebel Repository, you must have installed its Siebel language pack on the Siebel Server using the Siebel Enterprise Server installer. Also, you must have added the language to the Siebel database. For more information, see "Installing the Siebel Database" on page 136 and "Installing and Deploying Siebel Business Applications with Multiple Languages" on page 163.

To import the Siebel Repository

1. Start the Database Configuration Wizard, as described in "Installing the Siebel Database" on page 136. Respond to the wizard prompts in the same way that you did for that procedure, up to the Siebel Database Operation screen.

2. On the Siebel Database Operation screen, select Import/Export Repository, and click Next.
3 On the Select Repository Operation screen, choose one of the following options:

- **Import Repository.** This option imports the Siebel Repository for the first time with a primary (base) language. Click Next and go to the next step. *This task does not apply if you are importing Siebel Repository data into an existing Siebel Repository for any nonprimary language.*

- **Add Language to an Existing Repository.** This option adds a new language to your existing Siebel Repository (imports Siebel Repository data for that language). Click Next and go to Step 6 on page 146.

- **Export Repository.** This option exports the Siebel Repository data into a platform-independent file that can be sent to Oracle Global Customer Support for analysis, if needed. *This task is not described in this book.* For more information, see *Using Siebel Tools* and other documentation.

4 On the Import Selection screen, specify that you want to import the standard Siebel Repository for the current release, and click Next.

5 On the Language Selection screen, specify the language. For an import Siebel Repository operation, this is the primary language (base language), the first language installed in “Installing the Siebel Database” on page 136. For an Add Language operation, this is the language that you want to add to the Siebel Repository.

The languages listed in this screen are those for which you previously installed Siebel language packs on the Siebel Server.

6 On the ODBC Data Source Name screen, indicate the name for the ODBC data source, such as `sieb17_DSN`, and click Next.

For more information about the ODBC data source, see “Planning RDBMS Installation and Configuration” on page 286.

7 On the Database User Name screen, indicate the following about your database, and click Next:

- **Database User Name.** Type the user name of the Siebel administrator, for example, `sadmin` for Oracle Database and IBM DB2.

- **Database Password.** Type the password for the Siebel administrator.

- **Database Password (confirm).** Retype the password to confirm it.

8 On the Database Table Owner screen, indicate the following about your database, and click Next:

- **Database Table Owner.** The Siebel database table owner, or the account that will own the Siebel objects.

- **Database Table Owner Password.** Type the Siebel database table owner password.

- **Database Table Owner Password (confirm).** Retype the password to confirm it.
9 On the Import Repository Name screen, type the following values, and click Next:

**Import Repository Name.** Accept the default name (Siebel Repository) or type another valid name.

**Repository File Name/Localized Repository File Name.** If you are importing your Siebel Repository for the first time, then this field is named *Repository File Name*. If you are adding a language to an existing Siebel Repository, then this field is named *Localized Repository File Name*. Accept the default installation path and file name for this Siebel Repository, or type another valid installation path.

For Oracle Database, go to the next step. For IBM DB2, go to Step 11 on page 147.

10 (Oracle Database only) In the Oracle Parallel Index screen, specify the appropriate environment for your installation, and click Next:

- I am not running with Parallel Indexing On
- I am running with Parallel Indexing On

If you have a single-CPU environment, then choose the first option. If you have a multiple-CPU environment, then choose the first or second option, depending on whether you are running your Oracle Database with parallel indexing on.

11 In the Log Output Directory screen, accept the default log directory, or enter a new directory name, and click OK.

By default, logging occurs in the `$SIEBSRVR_ROOT/log/operation/output` directory. In this path, *operation* corresponds to the operation that you are performing, such as *imprep* for Import Repository or *imprep_lang* for Add Language to an Existing Repository.

The Configuration Parameter Review screen appears.

12 Review the configuration values that you entered on the previous Configuration Wizard screens:

- If you want to change any values, then click Previous or Next to access the screens on which to change entries, and then to return to this screen.
- When you have verified the configuration values, click Finish. A message box appears with the prompt:

  To apply the configuration now, press OK.

  To apply the configuration later, press Cancel.

  The command line to apply the configuration later is

  `$SIEBEL_ROOT/siebsrvr/bin/srvrupgwiz /m master_operation.ucf`

For the purposes of this procedure, *operation* is either *imprep* or *imprep_lang*.

The Siebel Upgrade Wizard appears, displaying the items to be executed or imported.

**NOTE:** If a program or system error occurs and you have to rerun the Siebel Upgrade Wizard, then you can do so starting at the point at which the wizard failed. For more information, see *Siebel Database Upgrade Guide*. 
13 To begin, click OK.

A window appears, displaying information about Siebel Upgrade Wizard activities to import the Siebel Repository. The Upgrade Wizard displays a message when the operation is complete.

Related Topics
"About Installing the Siebel Database” on page 127
"Verifying Installation for the Siebel Database” on page 239
"Troubleshooting Installation for the Siebel Database” on page 242

Related Books
Using Siebel Tools
Siebel Database Upgrade Guide
6
Additional Postinstallation and Configuration Tasks

This chapter describes some additional tasks that you might have to perform to complete configuring your Siebel Business Applications. It includes the following topics:

- Starting the Siebel Gateway on page 149
- Configuring the Siebel Gateway for Automatic Start on page 151
- Configuring the Siebel Server for Automatic Start on page 154
- Managing Environment Variables on page 157
- Preparing to Run Siebel Server Components on page 158
- Installing and Deploying Siebel Business Applications with Multiple Languages on page 163
- Configuring Support for CalDAV or CardDAV Publishing on page 176

Starting the Siebel Gateway

You must make sure that the Siebel Gateway Name Server system service is started when you do any of the following:

- Configure the Security profile
- Create and deploy the Siebel Enterprise profile
- Create and deploy a Siebel Server profile
- Create and deploy a Siebel Application Interface profile
- Create and deploy a Siebel Enterprise Cache Server profile
- Create a Siebel Enterprise Cache Client profile
- Create and deploy a Siebel Constraint Engine profile
- Create and deploy a Siebel Migration profile
- Operate any of the Siebel applications
- Remove the configuration for any of the Siebel modules mentioned. (These are tasks that you might perform when you are uninstalling the software.)

**NOTE:** It is recommended that you review the Siebel Gateway log files, which are found in the $SIEBEL_GATEWAY_ROOT/log directory.

Related Topics

“Installing Siebel Business Applications” on page 43
“Configuring the Siebel Gateway for Automatic Start” on page 151
To verify that the Siebel Gateway has started

■ Navigate to the $SIEBEL_ROOT/gtwysrvr directory and source the following environment setup file. Use one of the following commands, depending on the type of shell that you use:

C shell
source siebenv.csh

Bourne or Korn shell
./siebenv.sh

This step sets the Siebel environment variables and path information required to use Siebel utilities.

To configure the Siebel environment shell script to source automatically whenever a Siebel administrator logs on, specify the shell as the default for administrator accounts. Then, add this command to the startup file for the administrator’s account.

To verify that the Siebel Gateway started successfully and is running

1. Enter the following command:

   list_ns

   If the Siebel Gateway Name Server system service is running, then you receive a response like the following, which shows the pid (process ID) of the running process:

   started at Mon May 01 20:06:55 2017, pid: 4024, autostart: yes

   If the Siebel Gateway Name Server system service is stopped, then you receive a response like this:

   stopped at Mon May 01 20:06:55 2017, autostart: no

2. If the Siebel Gateway Name Server system service is stopped, then do the following:

   ■ Execute the start_ns command to start the Siebel Gateway Name Server system service. For more information, see Siebel System Administration Guide.

   ■ Execute list_ns to verify that it is operating correctly.
Configuring the Siebel Gateway for Automatic Start

Siebel Gateway is configured for automatic restart. However, you must complete the procedure that follows to configure the Siebel Gateway to start automatically. You run the Siebel Gateway service as the same nonroot user who installed the software.

After making the changes described in this topic for your operating system, the Siebel Gateway starts automatically when you restart your server and stops automatically when you shut down the server.

**NOTE:** Remember that the Siebel Gateway must be the first service to start, and the last to shut down, among all of the servers in the Siebel Enterprise that are served by that Siebel Gateway.

This topic includes the following information:
- “Configuring the Siebel Gateway for Automatic Start on AIX” on page 151
- “Configuring the Siebel Gateway for Automatic Start on HP-UX” on page 152
- “Configuring the Siebel Gateway for Automatic Start on Linux or Oracle Solaris” on page 153

**Related Topics**
- “Installing Siebel Business Applications” on page 43
- “Starting the Siebel Gateway” on page 149
- “Verifying Installation for Siebel Business Applications” on page 217
- “Verifying That the Siebel Gateway Has Started” on page 219
- “Setting Permissions and Ownership” on page 294

Configuring the Siebel Gateway for Automatic Start on AIX

Use the procedure in this topic to configure the Siebel Gateway to start automatically on AIX.

This topic is part of “Configuring the Siebel Gateway for Automatic Start” on page 151.

**To configure the Siebel Gateway to start automatically on AIX**

1. Log on as root to the computer on which the Siebel Gateway was installed.
2. Execute the following command on a single line:

   ```bash
   mkitab "sieb_gtwyns:2:wait:su - SIEBEL_ACCOUNT -c \"$SIEBEL_HOME/bin/siebel_server start\"
   ```

   where:
   - *SIEBEL_ACCOUNT* is the nonroot user account installing Siebel Business Applications
   - *$SIEBEL_HOME* is the installation directory for the Siebel Gateway
3 Verify if the file /etc/rc.shutdown exists. If it does not exist, then create it and change the permissions:

```
touch /etc/rc.shutdown
chmod 744 /etc/rc.shutdown
```

4 Edit the file /etc/rc.shutdown and add the following command:

```
/usr/bin/su - SIEBEL_ACCOUNT -c "SIEBEL_HOME/bin/siebel_server stop"
```

where:

- **SIEBEL_ACCOUNT** is the nonroot user account installing Siebel Business Applications
- **SIEBEL_HOME** is the installation directory for the Siebel Gateway

5 Save and close the file.

### Configuring the Siebel Gateway for Automatic Start on HP-UX

Use the procedure in this topic to configure the Siebel Gateway to start automatically on HP-UX.

This topic is part of “Configuring the Siebel Gateway for Automatic Start” on page 151.

**To configure the Siebel Gateway to start automatically on HP-UX**

1 Log on as root to the computer on which the Siebel Gateway was installed.

2 Copy the file siebel_server to the /sbin/init.d directory, as follows:

```
cp $SIEBEL_ROOT/bin/siebel_server /sbin/init.d
```

In this command, **$SIEBEL_ROOT** is the full path to the Siebel root directory.

3 Using any text editor, edit /sbin/init.d/siebel_server. Replace **$SIEBEL_GATEWAY_ROOT** with the path to the Siebel Gateway installation directory.

4 Set the appropriate permissions by executing the following command:

```
chmod 755 /sbin/init.d/siebel_server
```

5 Create a soft link to /sbin/rc3.d/S720siebel_server from /sbin/init.d/siebel_server by executing the following command:

```
ln -s /sbin/init.d/siebel_server /sbin/rc3.d/S720siebel_server
```

6 Create a soft link to /sbin/rc2.d/K320siebel_server from /sbin/init.d/siebel_server by executing the following command:

```
ln -s /sbin/init.d/siebel_server /sbin/rc2.d/K320siebel_server
```
Additional Postinstallation and Configuration Tasks  ■ Configuring the Siebel Gateway for Automatic Start

7 Create or edit `/sbin/init.d/siebel_server_nonroot` to add the following line:

```
/usr/bin/su - SIEBEL_ACCOUNT -c "/sbin/init.d/siebel_server $1"
```

In this command, `SIEBEL_ACCOUNT` is the nonroot user account installing Siebel Business Applications.

8 Remove `/sbin/rc3.d/S720siebel_server` and `/sbin/rc2.d/K320siebel_server`, if they already exist.

9 Execute the following commands:

```
chmod 755 /sbin/init.d/siebel_server_nonroot
ln -s /sbin/init.d/siebel_server_nonroot /sbin/rc3.d/S720siebel_server
ln -s /sbin/init.d/siebel_server_nonroot /sbin/rc2.d/K320siebel_server
```

### Configuring the Siebel Gateway for Automatic Start on Linux or Oracle Solaris

Use the procedure in this topic to configure the Siebel Gateway to start automatically on either Linux or Oracle Solaris.

This topic is part of “Configuring the Siebel Gateway for Automatic Start” on page 151.

To configure the Siebel Gateway to start automatically on Linux or Oracle Solaris

1 Log on as root to the computer on which the Siebel Gateway was installed.

2 Copy the file `siebel_server` to the `/etc/init.d` directory, as follows:

```
cp $SIEBEL_HOME/bin/siebel_server /etc/init.d
```

In this command, `$SIEBEL_HOME` is the full path to the Siebel root directory.

3 Using any text editor, edit `/etc/init.d/siebel_server`. Make sure that `$SIEBEL_GATEWAY_ROOT` points to the path to the Siebel Gateway installation directory.

4 Set the appropriate permissions by executing the following command:

```
chmod 755 /etc/init.d/siebel_server
```

5 Create a soft link to `/etc/rc3.d/S72siebel_server` from `/etc/init.d/siebel_server` by executing the following command.

```
ln -s /etc/init.d/siebel_server /etc/rc3.d/S72siebel_server
```

6 Create a soft link to `/etc/rc2.d/K32siebel_server` from `/etc/init.d/siebel_server` by executing the following command:

```
ln -s /etc/init.d/siebel_server /etc/rc2.d/K32siebel_server
```
Configuring the Siebel Server for Automatic Start

Siebel Server is configured for automatic restart. However, you must complete the procedure that follows to configure the Siebel Server to start automatically.

This topic includes the following information:

- “Configuring the Siebel Server for Automatic Start on AIX” on page 154
- “Configuring the Siebel Server for Automatic Start on HP-UX, Linux, or Oracle Solaris” on page 156

Related Topics

“Installing Siebel Business Applications” on page 43
“Verifying Installation for Siebel Business Applications” on page 217
“Verifying That the Siebel Gateway Has Started” on page 219

Configuring the Siebel Server for Automatic Start on AIX

Use the procedure in this topic to configure the Siebel Server to start automatically on AIX.

This topic is part of “Configuring the Siebel Server for Automatic Start” on page 154.

To configure the Siebel Server to start automatically on AIX

1. Navigate to `$SIEBEL_ROOT/bin`.

   In this path, `$SIEBEL_ROOT` is the installation directory for the Siebel Server.
Additional Postinstallation and Configuration Tasks  ■ Configuring the Siebel Server for Automatic Start

2 Using any text editor, open the file siebel_server. Edit the database environment variable as follows:

Oracle Database
a Uncomment the line #ORACLE_HOME=.
b Enter the location for $ORACLE_HOME.
c Uncomment the line #export ORACLE_HOME.
d Add the following two lines:
   TNS_ADMIN=$tns_admin
   export TNS_ADMIN

Ask your database administrator for the value of $tns_admin.

IBM DB2
l Add a line to execute db2profile, for example:
   . /home/db2v8aix/sqllib/db2profile

Ask your database administrator for the location of db2profile.

3 Save and close the file.

4 Log on as root and execute the following command on a single line:
   mkinitab "start_server:2:wait:su - SIEBEL_ACCOUNT -c "$SIEBEL_ROOT/bin/
siebel_server start""

where:
■ SIEBEL_ACCOUNT is the nonroot user account installing Siebel Business Applications
■ $SIEBEL_ROOT is the installation directory for the Siebel Server

5 Verify whether or not the file /etc/rc.shutdown exists. If it does not exist, then create it and change the permissions:
   touch /etc/rc.shutdown
   chmod 744 /etc/rc.shutdown

6 Edit the file /etc/rc.shutdown. Add the following command:
   /usr/bin/su - SIEBEL_ACCOUNT -c "$SIEBEL_ROOT/bin/siebel_server stop"

where:
■ SIEBEL_ACCOUNT is the nonroot user account installing Siebel Business Applications
■ $SIEBEL_ROOT is the installation directory for the Siebel Server

7 Save and close the file.
Configuring the Siebel Server for Automatic Start on HP-UX, Linux, or Oracle Solaris

Complete one of the procedures that follow to configure the Siebel Server to start automatically as a nonroot user.

This topic is part of “Configuring the Siebel Server for Automatic Start” on page 154.

Configuring the Siebel Server to Start Automatically on HP-UX

Use the procedure that follows to configure the Siebel Server to start automatically on HP-UX.

To configure the Siebel Server to start automatically on HP-UX

1. Log on as root.
2. Create or edit /sbin/init.d/siebel_server_nonroot. Add the following line:
   /usr/bin/su - SIEBEL_ACCOUNT -c "/sbin/init.d/siebel_server $1"
   In this command, SIEBEL_ACCOUNT is the nonroot user account installing Siebel Business Applications.
4. Execute the following commands:
   chmod 755 /sbin/init.d/siebel_server_nonroot
   ln -s /sbin/init.d/siebel_server_nonroot /sbin/rc3.d/S720siebel_server
   ln -s /sbin/init.d/siebel_server_nonroot /sbin/rc2.d/K320siebel_server

Configuring the Siebel Server to Start Automatically on Linux or Oracle Solaris

Use the procedure that follows to configure the Siebel Server to start automatically on Linux or Oracle Solaris.

To configure the Siebel Server to start automatically on Linux or Oracle Solaris

1. Log on as root.
2. Create or edit /etc/init.d/siebel_server_nonroot. Add the following line:
   /usr/bin/su - SIEBEL_ACCOUNT -c "/etc/init.d/siebel_server $1"
   In this command, SIEBEL_ACCOUNT is the nonroot user account installing Siebel Business Applications.
3. Remove /etc/rc3.d/S72siebel_server and /etc/rc2.d/K32siebel_server, if they already exist.

4 Execute the following commands:

```bash
chmod 755 /etc/init.d/siebel_server_nonroot
ln -s /etc/init.d/siebel_server_nonroot /etc/rc3.d/S72siebel_server
ln -s /etc/init.d/siebel_server_nonroot /etc/rc2.d/K32siebel_server
```

### Managing Environment Variables

There are several environment variables that must be properly set for optimal functioning of the Siebel Server, as shown in Table 13 on page 157. These include:

- Siebel environment variables
- UNIX operating system environment variables

**NOTE:** For information about tuning the UNIX kernel and other parameters for Siebel Server optimization, see *Siebel Performance Tuning Guide*.

<table>
<thead>
<tr>
<th>Environment Variable</th>
<th>Purpose</th>
<th>Recommended Siebel Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODBCINI</td>
<td>Tells the ODBC driver manager which file to open to look for the ODBC data source and driver information. Set within the environment setup files, siebenv.csh (for C shell) and siebenv.sh (for Bourne or Korn shell), which are created during Siebel Enterprise Server and Siebel Server configuration. This variable always points to <code>$SIEBEL_HOME/sys/.odbc.ini</code>.</td>
<td>Do not modify.</td>
</tr>
<tr>
<td>SIEBEL_UNIXUNICODE_DB</td>
<td>Controls the ODBC driver manager responsible for connection to the RDBMS. Reset, if necessary, within each environment setup file before sourcing it.</td>
<td>Set to ORACLE or DB2. This value is set automatically.</td>
</tr>
<tr>
<td>LANG</td>
<td>Language environment variable within the environment setup file. Sets the database server client environment appropriate to the language of installation. For more information about specifying locales, see “Specifying the Locale for Siebel Business Applications” on page 291 and “Specifying the Locale for Your UNIX Operating System” on page 292.</td>
<td>Set this to the language in which your database runs.</td>
</tr>
</tbody>
</table>
The Siebel environment variables $SIEBEL_HOME and $SIEBEL_ROOT must be set to enable execution of the Siebel Gateway and Siebel Server management utilities documented in Siebel System Administration Guide.

During Siebel Enterprise Server and Siebel Server configuration, the script files siebenv.csh (for C shell) and siebenv.sh (for Bourne or Korn shell) are automatically created in the $SIEBEL_ROOT directory. When sourced, these shell scripts set the environment variables.

If you have configured your Siebel Server to start manually, then you must source either siebenv.csh or siebenv.sh before starting the server. For this reason, you might want to add a call to the appropriate siebenv.* file to the logon files of all of the Siebel administrator UNIX accounts, so that these variables are set automatically whenever a Siebel administrator logs on.

**NOTE:** If you want to change the default settings of these environment variables, then you must do so before you start the Siebel Server.

**Tuning UNIX Operating Systems for Siebel Business Applications**

There are several UNIX system environment variables that you must set for proper functioning of the Siebel Server.

For detailed information about tuning the UNIX kernel and other configurable parameters for Siebel Server optimization, see Siebel Performance Tuning Guide.

**Related Topics**
- “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305
- “Specifying the Locale for Siebel Business Applications” on page 291
- “Specifying the Locale for Your UNIX Operating System” on page 292

**Preparing to Run Siebel Server Components**

This topic summarizes some of the tasks that you might have to do after installing and configuring Siebel Server and before you run Siebel Server components. It includes the following information:

- “Enabling and Disabling Server Component Groups” on page 159
- “Enabling and Disabling Language-Specific Application Object Managers and Adding Languages” on page 160
- “Synchronizing Batch Components” on page 161
- “Migrating Siebel Enterprise Server and Siebel Server Parameter Settings” on page 161
- “Performing Additional Tasks to Configure Siebel Servers” on page 161
- “Updating the CRC Checksum Setting” on page 162
- “About Installing Additional Siebel Servers for an Existing Siebel Enterprise” on page 162
You might have to perform some of these tasks on multiple Siebel Servers in order to configure them similarly for use in a load-balanced environment.

**NOTE:** For detailed information about enabling and disabling server component groups, synchronizing batch components, creating server component job definitions, using Siebel Server Manager, and related tasks, see *Siebel System Administration Guide*.

### Enabling and Disabling Server Component Groups

When you initially configured your Siebel Server, you specified which server component groups to enable. Before you deploy your Siebel Server, verify that the server component groups that you require are enabled. It is also recommended that you disable any server component groups that you do not require. Because you explicitly enabled server component groups when you configured the Siebel Server, you might or might not have to disable component groups after installation and configuration.

As is common for a new release, for the current release, Siebel Innovation Pack 2017, some new server components are provided. Also, some components have been removed or are no longer used. For example, in Siebel Innovation Pack 2017, additional customer applications for Siebel Open UI are provided that were previously desupported in Siebel Innovation Pack 2016, but were available for standard interactivity in prior releases. As of Siebel Innovation Pack 2016, the Application Object Managers that in previous release were used for Siebel eSales, Siebel eCustomer, and Siebel eMarketing are now used for new customer applications built for Siebel Open UI.

Customers migrating from earlier releases also must consider which product changes are new to them because they were made in intervening releases. For example, in Siebel Innovation Pack 2014, some components moved from existing component groups into a new component group, Disconnected Mobile Synchronization (alias MobileSync). Consequently, if your deployment uses Siebel Mobile disconnected applications or uses Siebel Remote or Siebel Replication Manager, then you must enable the MobileSync component group, if you have not already done so, along with the HandheldSync or HandheldSyncSIS component group.

Product changes of these types introduce changed requirements for enabling server components and for deploying applications. The specific requirements that apply to your deployment depend on the products that you are using. Some requirements apply only for migration installations, and vary based on the Siebel CRM version that you are migrating from or the Siebel CRM version in effect when you first configured the software.

For example, for a new installation, you can enable any component groups using the Siebel Management Console. For a migration installation, if you do not reconfigure the Siebel Server and you have to enable any additional component groups, then you can do so manually after installation. In some cases, however, you might have to run certain scripts on the Siebel Server to make new products available.

Before performing a migration installation, also review parameter settings for server components affected by product changes, in case you need to reapply custom settings to components that moved, for example, or in case you must reconfigure the Siebel Server.

Several requirements apply to all migrations to Siebel Innovation Pack 2017, as "Additional Tasks for Migration Installations" on page 57. For example, you must create the Siebel Application Interface profile and apply it to the installed instance of Siebel Application Interface.
For information about the requirements for particularSiebel CRM products, see product documentation on *Siebel Bookshelf* or elsewhere.

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

**Related Topics**

“Additional Tasks for Migration Installations” on page 57

“Enabling and Disabling Language-Specific Application Object Managers and Adding Languages” on page 160

**Related Books**

*Siebel System Administration Guide*

*Siebel Mobile Guide: Disconnected*

*Siebel Remote and Replication Manager Administration Guide*

*Siebel Database Upgrade Guide*

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**Enabling and Disabling Language-Specific Application Object Managers and Adding Languages**

When you installed and configured Siebel Business Applications software, you would have included one or more languages, as described in “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163. That topic also describes optional approaches to installing and deploying languages in a phased approach.

If you install the Siebel Server with multiple languages and specify these languages as deployed languages when you configure the Siebel Server, then language-specific Application Object Manager components are created for each deployed language. If you decide that you do not require Application Object Managers for one or more of these deployed languages, then you can use Siebel Server Manager to disable such components prior to deployment.

If you install multiple languages, then it is recommended that you deploy all of the installed languages when you configure the Siebel Server using the Siebel Management Console. As stated, you can disable any language-specific components that you do not require.

You must coordinate the language deployment tasks between your installations of Siebel Server and Siebel Application Interface.

For more information about performing tasks in the Siebel Management Console, see “Running the Siebel Management Console” on page 67.

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

**Related Topics**

“Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163
Synchronizing Batch Components

After installing and configuring the Siebel Server, you must synchronize any batch components before you can operate them. Do this after upgrading the Siebel database, where applicable. For more information about synchronizing batch components, see *Siebel System Administration Guide*.

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

Migrating Siebel Enterprise Server and Siebel Server Parameter Settings

Some Siebel Enterprise Server and Siebel Server parameter settings can be migrated from one Siebel application environment to another by using the configuration migration utility (cfgmerge). Other customized application data can be migrated by using Siebel Application Deployment Manager (Siebel ADM).

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

Performing Additional Tasks to Configure Siebel Servers

After installing and configuring a Siebel Server as described in this guide, you might have to perform some additional configuration tasks, such as setting parameters for the Siebel Enterprise, Siebel Server, or server components, such as Application Object Managers.

You perform these types of configuration tasks with Siebel Server Manager, whether by using views in the Administration - Server Configuration screen or by using commands at the srvrmgr command line. For more information about using Server Manager, see *Siebel System Administration Guide*.

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

Related Books

*Siebel System Administration Guide*

*Siebel Global Deployment Guide*
Updating the CRC Checksum Setting

If you are using a security adapter, then you might have to update the value of the CRC Checksum setting after installing the current release as a migration installation. The value must reflect the checksum value applicable to the security adapter library file, such as a DLL file on Microsoft Windows.

This task might be necessary if you previously determined to use checksum validation for your security adapter deployment, and set the value of the CRC Checksum setting. If a Siebel CRM release that you installed later as a migration installation included an updated security adapter library file, then checksum validation fails and Siebel Web Clients might not start. To prevent this result, you must update the value of the CRC Checksum setting.

For more information about specifying the CRC Checksum setting as part of configuring a security profile, see “Configuring a Security Profile” on page 77. See also Siebel Security Guide.

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

Related Books
Siebel Security Guide

About Installing Additional Siebel Servers for an Existing Siebel Enterprise

You can install and configure multiple Siebel Servers for a Siebel Enterprise.

Typically, before installing and configuring additional Siebel Servers for an existing Siebel Enterprise, you complete installation and configuration for the Siebel Application Interface.

Run the Siebel Enterprise Server installer to install each additional Siebel Server on another server computer, and run the Siebel Management Console to configure this Siebel Server.

You can also deploy a new Siebel Server based on an existing configured Siebel Server, using an existing Siebel Server profile you defined in Siebel Management Console.

After configuring a new Siebel Server, if this new Siebel Server adds a new component or language that is not available in any of the existing Siebel Servers, then you must perform corresponding Siebel Application Interface configuration tasks to make the applications on this Siebel Server available for Siebel native load balancing. In addition, you might have to modify the Siebel Application Interface profile for the installed instance.

This topic is part of “Preparing to Run Siebel Server Components” on page 158.

Related Topics
Chapter 3, “Installing Siebel Business Applications Server Modules”
Chapter 4, “Configuring Siebel Business Applications Server Modules”
Installing and Deploying Siebel Business Applications with Multiple Languages

Multiple Siebel language packs can be installed and deployed as part of Siebel Business Applications installation and configuration, for the current release. Review this topic and related topics when planning multilingual deployments. Language installation is part of the installation procedure for each installable Siebel module. The task of adding and deploying new languages is described for Siebel Server, Siebel Application Interface, Siebel Web Client, and Siebel Tools.

Scenarios for deploying Siebel Business Applications with more than one language pack are described in “Scenarios for Installing and Deploying Multiple Languages” on page 168.

See also “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306 and other relevant topics.

For a list of the languages supported by Siebel Business Applications, see 1513102.1 (Article ID) on My Oracle Support. See also Siebel Global Deployment Guide, Siebel System Administration Guide, and other applicable documentation.

Note the following recommendations:

- It is strongly recommended that you install and deploy, or at least install, all of the languages that you expect to require, on each physical server.
- It is strongly recommended that you install the same set of language files on each physical server. Doing so helps ensure maximum compatibility between physical servers, so that the system can be reconfigured to meet ongoing requirements. Oracle only tests configurations in which the same set of language files are installed on each physical server that is used in a single Siebel Enterprise.

You can add languages to an existing installation of the same version of Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, or Siebel Tools by using unattended mode (silent mode) only. After you install new languages, you must run the Siebel Management Console and perform the tasks to redeploy the Siebel Server. To do this, you create a new profile or clone the existing profile, then delete the Siebel Server deployment item, then deploy the Siebel Server with the new profile, specifying all of the languages to deploy. Finally, add the new languages to the Siebel Application Interface configuration. See also “Scenarios for Installing and Deploying Multiple Languages” on page 168 and “Limitations for Installing Additional Languages” on page 167.

If you include multiple languages with a Siebel Enterprise Server installation, then you designate one language as the primary language to be used for server messages and logging. Typically, the same primary language is also used for the Siebel database, which cannot be changed after database installation.

If you install and deploy a new language in an existing installation, then you must add the language to the Siebel database and perform additional tasks using the Database Configuration Wizard, as described in “About Language Deployment Tasks Using the Database Configuration Wizard” on page 166.

This topic contains the following information:

- “About Language Deployment and the Siebel Network Image” on page 164
- “About Language Deployment and Migration Installations” on page 164
Additional Postinstallation and Configuration Tasks

Installing and Deploying Siebel Business Applications with Multiple Languages

■ "About Language Deployment on Siebel Server and Siebel Application Interface” on page 166
■ "About Language Deployment Tasks Using the Database Configuration Wizard” on page 166
■ "About Language Deployment for Unshipped Languages” on page 167
■ "Limitations for Installing Additional Languages” on page 167
■ “Scenarios for Installing and Deploying Multiple Languages” on page 168
■ “Installing and Deploying All Required Languages Once” on page 169
■ "Installing All Required Languages but Deploying Some Languages Later” on page 170
■ “Installing and Deploying Additional Languages” on page 171
■ “Importing Locale-Specific Data into the Siebel Repository” on page 175

About Language Deployment and the Siebel Network Image

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

In order to include any languages in a new installation or to add languages that were not previously installed, the languages must be present in the Siebel network image for the applicable release of Siebel Business Applications. This requirement applies to the current release and to all applicable Siebel Patchset releases, where available.

Where a language was not previously included in the network image, you can add languages to each applicable network image (for all applicable releases) using the Siebel Image Creator utility. For details, see Chapter 12, “Creating the Siebel Installation Image on the Network.”

About Language Deployment and Migration Installations

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

For Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, or Siebel Tools, when you perform a migration installation of the current release, files for all of the installed languages are automatically included. First, however, you must include all of these languages when you create the network image for the current release. For more information about the types of Siebel releases, see "About Siebel CRM Releases” on page 280.
If you plan to perform a migration installation of the current release, and you also want to add languages to your existing deployment, then you have two options for how to do this, subject to limitations:

- **Add languages after installing the current release.** The installer for Siebel Enterprise Server and Siebel Application Interface for the current release supports adding languages to an existing installation of the same version, using an unattended installation method. You would perform this task after performing the migration installation tasks for these modules. Some limitations might apply to adding languages to your existing installed Siebel client software. For more information, see “Limitations for Installing Additional Languages” on page 167 and “Installing and Deploying Additional Languages” on page 171.

- **Add languages before installing the current release.** Subject to limitations for your existing installed Siebel CRM server and client software, it might be possible or desirable for you to install new languages before you install the current release. To determine if this option is possible for the currently installed software in your Siebel deployment and, if so, to determine what steps are required, see the documentation that applies to your currently installed Siebel software version for information about this version.

  For versions of the Siebel Installation Guide for prior releases, see 1461732.1 (Article ID) on My Oracle Support. For Siebel Patchset releases, see Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support. For versions of Siebel Maintenance Release Guide for prior releases, see 880452.1 (Article ID) on My Oracle Support for version 8.1.1.x or see 1441523.1 (Article ID) for version 8.2.2.x.


For a list of the languages supported by Siebel Business Applications, see 1513102.1 (Article ID) on My Oracle Support.

**NOTE:** Specific installation tasks and requirements might apply for any language pack that is newly supported and thus requires a minimum Siebel release of Siebel CRM version 17.0. For more information, see “Importing Locale-Specific Data into the Siebel Repository” on page 175.

**Related Topics**

- “Limitations for Installing Additional Languages” on page 167
- “Installing and Deploying Additional Languages” on page 171
- “Importing Locale-Specific Data into the Siebel Repository” on page 175
- “About Siebel CRM Releases” on page 280
About Language Deployment on Siebel Server and Siebel Application Interface

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

When you configure each installed instance of Siebel Server and Siebel Application Interface, you specify which languages to deploy, from among the installed languages. It is possible to deploy a subset of the installed languages. Which languages you deploy on a given server depends on the uses to which you will put that server.

Note the following points about language deployment on Siebel Server and Siebel Application Interface:

- On each Siebel Server, the set of deployed languages determines which language-specific components such as Application Object Managers are created on that server. It is recommended that you deploy all of the languages that are installed in the enterprise and optionally disable Application Object Managers for particular languages where they are not required.

- On each instance of Siebel Application Interface, you must deploy the superset of all of the languages that are required by all of the Application Object Managers that connect to it. It is recommended that you deploy all of the languages that are installed in the enterprise.

Related Topics
Chapter 4, "Configuring Siebel Business Applications Server Modules"
"Scenarios for Installing and Deploying Multiple Languages” on page 168

About Language Deployment Tasks Using the Database Configuration Wizard

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

In addition to software installation and configuration tasks, for installed languages other than the primary language for the Siebel database, you must perform the following operations, using the Database Configuration Wizard. You perform these tasks after installing the Siebel database.

- Adding the language (including seed data) to the Siebel database. Perform this task once for each nonprimary language that you install.

- Importing the Siebel Repository into the Siebel database. Perform this task once for each nonprimary language that you install.

- Running the MLOV (multilingual LOV) conversion utility. Perform this task once after installing multiple languages initially and again after adding one or more languages.

Related Topics
Chapter 5, “Installing the Siebel Database on the RDBMS”
About Language Deployment for Unshipped Languages

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

If you are localizing Siebel Business Applications to use a language for which a Siebel language pack is not provided, then see also the topics about localizing an unshipped language in Siebel Global Deployment Guide.

Limitations for Installing Additional Languages

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

Although it is strongly recommended to install all of the languages that you might require (whether or not you initially deploy them all), you can also add languages to an existing installation by using the installer for the current release. However, several limitations apply.

NOTE: If you plan to perform a migration installation of the current release, and you also want to add languages to your existing deployment, then you might be able to install the languages before you install the current release. For more information, see “About Language Deployment and Migration Installations” on page 164.

For Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, and Siebel Tools, the limitations for installing additional languages for the current release are as follows:

- You can install additional languages for existing installations by using the installers of the same version only. For example, for the current release, you can install the software as a new installation or as a migration installation, then later use the same installers to add languages.

- You can add languages to the current release by running the installer in unattended mode (silent mode) only, using response files that you have prepared for this purpose. You cannot add languages by running the installer in GUI mode.

- You cannot generate response files for an operation to add languages. You must use an edited copy of one of the response files that are provided for Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, or Siebel Tools. For the location of these response files, see “Installing and Deploying Additional Languages” on page 171.

- You cannot add languages as part of performing a migration installation of the current release. However, you can add languages after the migration installation.

- You cannot add languages to an earlier version of the installed software by using the installers for the current release. Conversely, you cannot use the installers for any earlier release to add languages to an installation of the current release.
Before you install additional languages, you must uninstall any Siebel Patchset release that you have installed onto the current release. Reinstall the Siebel Patchset onto the current release after completing the steps to add the languages.

**Related Topics**

“About Language Deployment and Migration Installations” on page 164

“Installing and Deploying Additional Languages” on page 171

Chapter 9, “Uninstalling Siebel Business Applications”

### Scenarios for Installing and Deploying Multiple Languages

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

Consider the following scenarios for installing and deploying multiple Siebel language packs:

#### Install and deploy all of the languages that you require once.

For customers who are installing and deploying languages shipped with the Siebel CRM base release, and who do not plan to deploy other languages at a later date. This option is easiest but might not be suitable for phased language deployments.

#### Install all of the languages that you will require, but deploy some of these languages later.

For customers who are installing and deploying languages shipped with the Siebel CRM base release, but who plan to deploy some of the installed languages at a later date. This option is recommended for phased language deployments.

#### Install and deploy additional languages in an existing deployment.

For customers who are installing and deploying languages shipped with the Siebel CRM base release, and who plan to install and deploy additional languages at a later date. This option might be suitable for some phased language deployments. You can install languages at any time to meet changing business needs. However, deploying languages is easier if you include them when you first install and configure the Siebel CRM software.

**Related Topics**

“Installing and Deploying All Required Languages Once” on page 169

“Installing All Required Languages but Deploying Some Languages Later” on page 170

“Installing and Deploying Additional Languages” on page 171
Installing and Deploying All Required Languages Once

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

This scenario is intended for customers who are deploying language packs that shipped with the current release and who are installing all of the language packs that their enterprise will require during initial installation and configuration.

Include all of the required languages with your initial installation and deploy them when you configure the installed Siebel software.

**NOTE:** You perform the tasks in this topic in conjunction with topics such as “Installing Siebel Business Applications” on page 43. Perform all applicable steps that are documented in more detail in these and other topics. These tasks are also part of the roadmap topics in Chapter 2, “Overview of Installing Siebel Business Applications.”

**To deploy multiple languages shipped with the current release**

1. Install Siebel Enterprise Server software on all of the applicable servers, with all of the languages that you will require for the enterprise.

2. Install Siebel Application Interface, with all of the languages that you will require for the enterprise.

3. Install the latest Siebel Patchset release (where available) on all of the components in your Siebel CRM deployment.

4. Install the Siebel database. This task installs seed data for the primary language into the Siebel database.

5. Using the Siebel Management Console, create and deploy the Security profile, the Siebel Gateway profile, and the Siebel Enterprise profile.

6. Create and deploy the Siebel Server profile. During Siebel Server configuration, specify to deploy all of the installed languages.

7. Create and deploy the Siebel Application Interface profile. During Siebel Application Interface configuration, specify to deploy all of the installed languages.

8. For each additional installed (nonprimary) language that you are deploying for the first time: add the language to the Siebel database and import the Siebel Repository. Also run the MLOV conversion utility (once).
Installing All Required Languages but Deploying Some Languages Later

This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

This scenario is intended for customers who are deploying language packs included in the current release but who plan to deploy some of these language packs at a later date on particular instances of Siebel Server or Siebel Application Interface. Include all of the required languages with your initial installation.

There are two variations of this scenario that can achieve the desired result. Review each option and decide which one works best for your situation. See also “Installing and Deploying All Required Languages Once” on page 169 for details for some tasks.

**NOTE:** You perform the tasks in this topic in conjunction with topics such as “Installing Siebel Business Applications” on page 43. Perform all applicable steps that are documented in more detail in these and other topics. These tasks are also part of the roadmap topics in Chapter 2, “Overview of Installing Siebel Business Applications.”

**Deploying Multiple Languages Now and Later (Option 1)**
Use the following procedure to deploy multiple languages now and at a later date. This procedure represents Option 1. Compare it with Option 2.

**To deploy multiple languages now and at a later date (Option 1: preferred)**

1. Perform tasks similar to those described in “Installing and Deploying All Required Languages Once” on page 169.
   - Install Siebel Business Applications software with all of the languages that you will deploy now and at a later date.
   - Install the latest Siebel Patchset release (where available) on all of the components in your Siebel CRM deployment.
   - When you configure each Siebel Server and Siebel Application Interface, specify that you want to deploy all of the installed languages.

2. For each Siebel Server, disable any language-specific Application Object Manager components that you do not yet require.

3. When you are ready to deploy additional installed languages, re-enable any language-specific Application Object Managers that you previously disabled.

4. For each additional installed (nonprimary) language that you are deploying for the first time: add the language to the Siebel database and import the Siebel Repository. Also run the MLOV conversion utility (once).
Deploying Multiple Languages Now and Later (Option 2)
Use the following procedure to deploy multiple languages now and at a later date. This procedure represents Option 2. Compare it with Option 1.

To deploy multiple languages now and at a later date (Option 2)
1 Perform tasks similar to those described in “Installing and Deploying All Required Languages Once” on page 169. In this case, it is assumed that you did not deploy all of the installed languages.
   ■ Install Siebel Business Applications software with all of the languages that you will deploy now and at a later date.
   ■ Install the latest Siebel Patchset release (where available) on all of the components in your Siebel CRM deployment.
   ■ When you configure each Siebel Server or Siebel Application Interface, optionally specify to deploy only a subset of the installed languages.
2 When you are ready to deploy additional installed languages, perform the following for each Siebel Server:
   a Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
   b Create a new Siebel Server profile or clone the existing profile.
   c Delete the Siebel Server deployment item.
   d Deploy the Siebel Server with the new profile, specifying all of the languages to deploy.
3 Perform the following for each Siebel Application Interface:
   a Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.
   b Modify the existing Siebel Application Interface profile to add language support for the Siebel Application Interface.
   c Specify the additional languages to deploy.
   d Save the profile.
4 For each additional installed (nonprimary) language that you are deploying for the first time: add the language to the Siebel database and import the Siebel Repository. Also run the MLOV conversion utility (once).

Installing and Deploying Additional Languages
This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

This scenario is intended for customers who did not install all of the Siebel language packs and who later determine that they require additional supported Siebel language packs that were not previously installed and deployed.
This topic describes adding new languages to your existing Siebel Business Applications deployment and existing physical resource allocation. As part of expanding language support, you might also install components on new servers that include new language packs.

For an existing installation of the current release of Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, or Siebel Tools, you can run the same installer in unattended mode to add any available and supported language packs that you require that were not previously installed. You must perform this installation task using unattended mode (silent mode) only.

For detailed requirements and other information about running Siebel installers and Siebel Management Console, see Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications," and other applicable parts of this guide.

Perform the tasks in this topic in conjunction with the installation instructions for each installable module and the unattended installation instructions for these modules. Perform all applicable steps, including those that are documented in more detail in other topics.

For more information about performing unattended installations, see "Installing Siebel Business Applications in Unattended Mode" on page 54 and "Installing Siebel Web Clients and Siebel Tools in Unattended Mode" on page 200.

**NOTE:** Where you are adding languages to an existing installation, the primary language for the Siebel database will already have been determined when you installed the Siebel Enterprise Server software and the Siebel database. Any language that is to serve as the primary language for a new Siebel database must be included when you first install the Siebel Enterprise Server software.

**Oracle-Provided Installation Response Files**
The Oracle-provided response files that you can use for adding languages using unattended mode are as follows, depending on your Siebel CRM version. Use the file whose name best reflects the version, product, and operating system for each installation you are performing, and modify the file as necessary for your installation task.

- 811x_ses_addlang_unix.rsp
- seaw_mobile_webclient_addlang.rsp
- seaw_dedicated_webclient_addlang.rsp
- seatools_addlang.rsp

**Response File Parameters**
The response files that you use when you install additional languages in unattended mode include parameters that specify information about your existing installation, the network image, the new languages you are installing, and so on. Review the parameters in each response file to determine the parameters for which you must provide values. All values must be enclosed in double-quotes.

For any operation to install new languages, you must do the following:

- Specify values for the ORACLE_HOME and ORACLE_HOME_NAME parameters, which correspond to values that you specified when you performed the original installation. These settings identify the installation to which you are adding languages.
Additional Postinstallation and Configuration Tasks

■ Installing and Deploying Siebel Business Applications with Multiple Languages

Specify a value for the s_shiphomeLocation parameter, representing the location of the Disk1 directory in the network image for the Siebel module that you are installing.

Specify a value for the FROM_LOCATION parameter, representing the location of the products.xml file within the Disk1/stage directory in the network image for the Siebel module that you are installing.

Specify a value for the selectedLangs parameter, representing the new language or languages that you are installing.

For Siebel Enterprise Server only, you must set the following parameters to true for each installed component:

■ b_isGatewayInstalled (if Siebel Gateway is installed)
■ b_isSiebsrvrInstalled (if Siebel Server is installed)
■ b_isDBInstalled (if Siebel Database Configuration Utilities is installed)
■ b_isEAIInstalled (if EAI Connectors is installed)

To install and deploy additional languages on existing installations

1 Perform tasks similar to those described in “Installing and Deploying All Required Languages Once” on page 169 or “Installing All Required Languages but Deploying Some Languages Later” on page 170. In this case, it is assumed that you did not install and deploy all of the languages.

2 Review "Limitations for Installing Additional Languages” on page 167.

3 Uninstall any Siebel Patchset release that you have installed on top of the current release, for each applicable installed Siebel module.

4 Verify that the additional new languages that you require and plan to install are included in the Siebel network image.

5 Navigate to the location of an existing response file for the Siebel module for which you are adding languages.

For example, for Siebel Enterprise Server on Oracle Solaris, navigate to Siebel_Image/Solaris/Serv/er/Siebel_Enterprise_Server/Disk1/stage/Response.

In this path, Siebel_Image is the directory for your version-specific Siebel network image, such as /Siebel_Install_Image/17.0.0.0.

6 Edit the response file, as appropriate for the Siebel module for which you are adding languages.

For example, for Siebel Enterprise Server modules and Siebel Application Interface, edit the response file 811x_ses_addlang_unix.rsp.

See the information about response file parameters, before this procedure.

NOTE: Always back up any existing response file before editing it or replacing it with an edited version of the file.

7 Copy the edited file to a suitable location. For example, you might place a file into a subdirectory of the existing location for the response files, or into a temporary location.
8 Navigate to the location of the installer for the Siebel module for which you are installing additional languages.

For example, for Siebel Enterprise Server on Oracle Solaris, navigate to `Siebel_Image/Solaris/Server/Siebel_Enterprise_Server/Disk1/install`.

9 When you are ready to install additional languages as indicated by the settings in each of your edited response files, run each installer program in unattended mode (silent mode) on each computer where the current release is already installed.

For example, for Siebel Enterprise Server, run a command like the following:

```
./runInstaller -silent -responseFile /export/home/811x_ses_addlang_unix.rsp -invPtrLoc inventory_location
```

For example, for Siebel Tools, run a command like the following:

```
setup.bat -silent -responseFile C:\811x_tools_addlang_win.rsp
```

10 Reinstall any previously installed Siebel Patchset release that you uninstalled in Step 3 on page 173. Then validate the installation again.

11 For each applicable Siebel Server, when you are ready to deploy the newly installed languages, and any other languages that were not previously deployed, do the following:

   a Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

   b Create a new Siebel Server profile or clone the existing profile.

   c Delete the Siebel Server deployment item.

   d Deploy the Siebel Server with the new profile, specifying all of the languages to deploy.

12 For each applicable Siebel Application Interface, do the following:

   a Run the Siebel Management Console, as described in “Starting the Siebel Management Console” on page 67.

   b Modify the existing Siebel Application Interface profile to add language support for the Siebel Application Interface.

   c Specify the additional languages to deploy.

   d Save the profile.

13 For each additional installed (nonprimary) language that you are deploying for the first time: add the language to the Siebel database and import the Siebel Repository. Also run the MLOV conversion utility (once).

14 Validate the installation after it has completed.

15 Repeat the previous steps, where applicable, to install and deploy the new languages for each applicable installed Siebel module.

**NOTE:** Add the languages for all of the applicable server installations before you add the languages for Siebel Web Client and Siebel Tools, where needed.
Related Topics
"Installing Siebel Business Applications” on page 43
"Installing Siebel Business Applications in Unattended Mode” on page 54
"Limitations for Installing Additional Languages” on page 167
"Installing and Deploying All Required Languages Once” on page 169
"Installing All Required Languages but Deploying Some Languages Later” on page 170
"Installing the Siebel Web Client” on page 181
"Installing Siebel Tools” on page 189
"Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200
Chapter 8, “Verifying and Troubleshooting Your Installation”
Chapter 10, "Requirements for Installing and Configuring Siebel Business Applications”
“About Siebel CRM Releases” on page 280

Importing Locale-Specific Data into the Siebel Repository
This topic is part of “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

Sometimes it is necessary to update the text strings held in the repository for a particular language or for multiple languages. These text strings are held in the Symbolic String Model (SSM) table, and appear on-screen as labels for tabs, fields, and so on, across all of the Siebel applications.

Updates might be needed either because a string has been incorrectly translated for a particular language or because installing a patch release has caused a new string or message to appear for all of the languages for which Oracle ships language packs for Siebel Business Applications.

**NOTE:** These instructions are provided for use with any releases to which they might apply. They might not apply for any particular Siebel CRM version release or language.

The following procedure uses the Locale Management Utility (LMU), which is part of Siebel Tools, to import an LMU file. An LMU file might contain strings in just one language or in multiple languages. When running the Locale Management Utility, you can choose to import only the strings for the languages that you are using in your installation. In the procedure, when you are prompted for the file to import, specify the name of the LMU file provided for the applicable language.

**NOTE:** Install the current release before you run the Locale Management Utility.

For more information about using the Locale Management Utility, see Using Siebel Tools and Siebel Global Deployment Guide.

To import strings and other locale-specific attributes into the repository

1. In Siebel Tools, choose Tools, then Utilities, and then Locale Management.

   The Locale Management Utility appears.
2 Select a source language and a target language.

The source language is the language of the locale-specific data in the LMU file that you are importing. The target language is the Siebel language into which the strings will be imported.

3 Click the Import tab.

4 Enter the name of the LMU file from which you want to import locale-specific attributes.

You can also click Browse to find and select the file.

5 Specify whether you want to mark records in the repository with the Redo flag that have changed since the export occurred.

When the import occurs, the LMU compares the source language records in the repository with the source language records in the import file. If the records in the repository have changed since the export occurred, then they are marked with the Redo flag. This flag helps you identify records that might have to be retranslated.

6 Click Import.

7 After completing the import process, update the repository and deliver the updates, then restart the Application Object Manager component on the Siebel Server to see the results.

**Related Books**

*Using Siebel Tools*

*Siebel Global Deployment Guide*

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**Configuring Support for CalDAV or CardDAV Publishing**

This topic provides information about configuring your Siebel CRM environment to support CalDAV or CardDAV publishing. CalDAV (Calendaring Extensions to WebDAV) is an internet standard designed to allow users to access and share calendar data on a remote server. CardDAV (vCard Extensions to WebDAV) is a client-server protocol designed to allow users to access and share address book or contact data on a server. These standards allow users to view external contact or calendar information in Siebel Business Applications.

To enable CalDAV or CardDAV for your Siebel CRM deployment, the following requirements apply:

- On the computer or operating system instance where you installed Siebel Application Interface, Transport Layer Security (TLS) must be configured. For more information, see *Siebel Security Guide*.

- On the Siebel Server, the EAI component group must be enabled. For more information, see “Configuring the Siebel Server” on page 89. See also *Siebel System Administration Guide* and additional documentation on *Siebel Bookshelf* for Siebel Enterprise Application Integration.

- In the Siebel CRM applications, valid email addresses must be associated with all Employees and Contacts. For each mobile user, the email address defined in Siebel CRM must match the user’s email address on the mobile device. For more information, see *Siebel Mobile Guide: Connected* or *Siebel Mobile Guide: Disconnected*. See also *Siebel Applications Administration Guide*. 
Users of mobile devices must set up CalDAV or CardDAV publishing on their devices in order to be able to access calendar or contact data. For more information, see *Siebel Mobile Guide: Connected* or *Siebel Mobile Guide: Disconnected*.

Additional steps must be performed to enable dynamic mapping for CardDAV. Siebel Innovation Pack 2017 supports dynamic mapping for CardDAV on mobile devices running supported versions of iOS. CardDAV dynamic mapping defines the mapping between Siebel objects and the CardDAV properties. The Siebel CardDAV Sync module synchronizes the defined entities (address book and contact data) accordingly between a user’s mobile device and Siebel CRM applications. For information about enabling this feature for Siebel CRM version 17.0, see 2160593.1 (Article ID) on My Oracle Support.

**Related Books**

*Siebel Security Guide*

*Siebel System Administration Guide*

*Siebel Mobile Guide: Connected*

*Siebel Mobile Guide: Disconnected*

*Siebel Applications Administration Guide*

2160593.1 (Article ID) on My Oracle Support (about CardDAV dynamic mapping)
Additional Postinstallation and Configuration Tasks ■ Configuring Support for CalDAV or CardDAV Publishing
7 Installing Siebel Web Clients and Siebel Tools

This chapter describes the tasks that you must perform to install Siebel Web Clients and Siebel Tools, and optionally the local database or sample database, and to start Siebel Business Applications. Both new installations and migration installations are described. Additional tasks for the client computer are also described. This chapter includes the following topics:

- About Installing the Siebel Web Client or Siebel Tools on page 179
- Installing the Siebel Web Client on page 181
- Installing Siebel Tools on page 189
- Installing and Using Oracle Database XE for the Local or Sample Database on page 195
- Installing Siebel Web Clients and Siebel Tools in Unattended Mode on page 200
- About the Workspaces Feature in Siebel Tools and the Siebel Runtime Repository on page 205
- Installing Desktop Integration Siebel Agent on Client Computers on page 206
- Installing Outlook to Siebel Drag and Drop on Client Computers on page 206
- Siebel Client Deployment Requirements When Using Firewalls or Proxy Servers on page 207
- Configuring Siebel Business Applications for Pop-Up Blocker Compatibility on page 208
- Logging in to Your Siebel Application on page 209
- Siebel Web Client Shortcuts and Startup Options on page 212

About Installing the Siebel Web Client or Siebel Tools

This chapter describes how to install Siebel Web Clients (for Siebel Mobile Web Clients) and Siebel Tools, and optionally the local database or sample database, with specified Siebel language packs. Before installing, review all documented requirements.

**NOTE:** Siebel Web Tools is available as an alternative to the traditional Siebel Tools client. For more information, see *Using Siebel Tools*.

The software that is installed on the user’s computer for Siebel Mobile Web Client and Developer Web Client is identical. A single installer provides the software necessary to install and run either of these client types. For general information about these client types, see *Siebel Deployment Planning Guide*. Information in this guide about installing the *Siebel Web Client* refers to either or both of these two client types. (Siebel Developer Web Client installation is covered with the Siebel Mobile Web Client.) See also *Deploying Siebel Open UI*. 
Note the following about Siebel Web Client and Siebel Tools:

- Each Siebel Web Client is designed to be used within a single Siebel Enterprise by a single local user.
- Each Siebel Tools client is designed to be used within a single Siebel Enterprise by a single local developer user.

It is recommended to install the Siebel Developer Web Client with Siebel Tools. The Siebel Developer Web Client has specific requirements for connectivity to the enterprise database. For information about the relational database management systems (RDBMS) that you might need to install on client computers running Siebel Developer Web Clients, see the Certifications tab on My Oracle Support. RDBMS products are not provided by Oracle; you must obtain them based on your database-connection requirements.

**NOTE:** The Siebel Developer Web Client is supported for administration, development, and troubleshooting usage scenarios only.

Oracle Database XE is always installed for Siebel Mobile Web Client and Siebel Tools, for a new or migration installation. You can optionally install the sample database for Siebel Mobile Web Client, or optionally install the local database for Siebel Tools. However, do not install the local database or the sample database if you plan to initialize a local database through Siebel Remote. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

The migration installation tasks are a type of patch installation provided for Siebel Web Client and Siebel Tools installers. You perform migration installations using the same installers (for the current release) that you use for new installations. A migration installation applies settings from your existing installation to a new installation. The existing Oracle home name, installation location, installation languages, configuration data, and other settings are used for the new installation. Before the new installation is performed, the existing installation is moved to a backup location and can no longer be used.

**NOTE:** For information about additional tasks and considerations for migration installations, see “Additional Tasks for Migration Installations” on page 57.

The language that the installer displays is the one that corresponds to the current regional settings on the installation client computer.

This chapter also includes information about installing additional modules on client computers, for use with any Siebel Web Client.

**Siebel Web Client and Siebel Tools Installer Flow**

In general, the installer for Siebel Web Client or Siebel Tools does the following:

1. Checks the client computer to verify whether required components have already been installed.
2. Creates all of the required ODBC data sources.
3. Installs the Siebel CRM software and specified Siebel language packs.
4. (Siebel Mobile Web Client and Siebel Tools only) Installs Oracle Database XE, and optionally installs the sample database or local database. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.
5 Creates Siebel shortcuts.
6 Writes data to installation log files.

Related Topics
“Installation-Related Changes for Siebel Innovation Pack 2017” on page 21
“Installing the Siebel Web Client” on page 181
“Installing Siebel Tools” on page 189
“Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
“Requirements for Installing Siebel Web Clients” on page 321
“Requirements for Installing Siebel Tools” on page 324
“About Siebel CRM Releases” on page 280

Related Books
Siebel Deployment Planning Guide
Deploying Siebel Open UI
Siebel Remote and Replication Manager Administration Guide
Configuring Siebel Business Applications
Using Siebel Tools

Installing the Siebel Web Client

This topic provides instructions for installing the Siebel Mobile Web Client or Developer Web Client and specified Siebel language packs.

NOTE: This topic includes instructions for installing the Siebel Web Client as a new installation or as a migration installation. For an existing installation, you perform a migration installation instead of a new installation.

The language that the installer displays is the one that corresponds to the current regional settings on the installation client computer.

This topic contains the following information:
- “Installing the Siebel Web Client as a New Installation” on page 182
- “Installing the Siebel Web Client as a Migration Installation” on page 186

Related Topics
“About Installing the Siebel Web Client or Siebel Tools” on page 179
“Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200
“Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
“Verifying Installation for the Siebel Web Client” on page 247
“Verifying Installation for Oracle Database XE” on page 249
Installing the Siebel Web Client as a New Installation

Use the following procedure to install the Siebel Web Client as a new installation for the current release, Siebel CRM version 17.0. Some of the information applies to only the Siebel Mobile Web Client or only the Siebel Developer Web Client.

**NOTE:** Use this procedure only when Siebel Web Client is not already installed. Where an earlier version of Siebel Web Client is already installed, you perform a migration installation instead, as described in “Installing the Siebel Web Client as a Migration Installation” on page 186.

Oracle Database XE is always installed for Siebel Mobile Web Client. You can optionally install the sample database for a new installation. Alternatively, you can use this procedure to install the sample database for an existing installation of Siebel Mobile Web Client for the current release, if you had not previously installed the sample database. Do not install the sample database if you plan to initialize a local database through Siebel Remote. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

This topic is part of “Installing the Siebel Web Client” on page 181.

This task is a step in:

- “Roadmap for Installing and Configuring Siebel Business Applications for a New Deployment” on page 30
- “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36

To install the Siebel Web Client as a new installation

1. Review "About Installing the Siebel Web Client or Siebel Tools" on page 179. See also "Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

2. Uninstall your existing sample database from a previous version, where applicable.

   You might have installed the existing sample database for a prior release, such as version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x.

   **NOTE:** The *Siebel Installation Guides* for prior Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, and version 16.x releases are available on My Oracle Support, at 1461732.1 (Article ID).
3 In Windows Explorer, navigate to the Siebel image location for the current release. Then navigate to
\Siebel_image\Windows\Client\Siebel_Security_Client\Disk1\install.

In this path, \Siebel_image is the directory for your version-specific Siebel network image, such as C:\Siebel_Install_image\17.0.0.0.

4 To start the Siebel Web Client installer, double-click setup.bat.

The Siebel Web Client installer displays the Welcome screen.

5 Click Next.

The Select Installation Task screen appears. The New Installation task is selected by default.

6 To perform a new installation of Siebel Web Client software where no existing installation of
Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x is present, click Next. Also click Next if you are installing the sample database into an existing installation of Siebel
Mobile Web Client for the current release.

The New Installation Details screen appears.

7 Enter a name for your installation and specify the installation location, and then click Next. (Note
the installation name and location for future reference.) Note the following:

- The default installation name (Oracle Home Name) is CLIENT_HOME. The value that you
specify is used in the parent program folder name for the Siebel application client shortcuts.
(A separate program folder is created for the Oracle Universal Installer software.) If you have
an existing installation, then you must specify a new name for the new installation.

- The default installation path (Oracle Home Location) for a new installation is
C:\Siebel\Client or a similar value. Accept the default path or specify a different location
by typing it directly or by clicking Browse. If you have an existing installation, then you must
specify a new path for the new installation.

For more information about Oracle home and installation path requirements, see “File and
Directory Naming Conventions” on page 297.

If you specified an existing installation of Siebel Mobile Web Client for the current release in this
screen, then the installer gives you the option of installing the sample database into your existing
installation. Go to Step 18 on page 185. Otherwise, go to the next step.

For a new installation, the Select Languages screen appears. All of the languages that were
included in the Siebel network image for Siebel Web Client are available for selection.

8 Select the languages that you want to install, and click Next. You must select at least one
language in order to proceed.

To select a language, you click the name of the language in the Available box and then use the
arrow controls to move it into the Selected box.

You specify languages to install in order to run Siebel Business Applications using these
languages. The files that are specific to the languages chosen in this step will be copied to your
computer.
NOTE: You can add languages to an existing installation by running the installer in unattended mode (silent mode). For more information about installing and deploying languages, see “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

The Client Type screen appears.

9 Specify the type of Siebel Web Client that you are installing: either Siebel Mobile Web Client or Siebel Developer Web Client. Do one of the following:
   - For Siebel Mobile Web Client, go to the next step.
   - For Siebel Developer Web Client, go to Step 11 on page 184.

10 (Siebel Mobile Web Client only) In the Remote Server Information screen, specify the name of the Siebel Server on which you are running the Siebel Remote Server components. Then click Next. Go to Step 19 on page 185.

The Siebel Remote Server components are required for initializing and synchronizing the local database on the Siebel Mobile Web Client computer.

11 (Siebel Developer Web Client only) In the Database Server screen, select the type of database server that you are using for Siebel Business Applications. Choose one of the following, and click Next:
   - Oracle Database Server
   - IBM DB2 UDB for Windows and UNIX
   - IBM DB2 UDB for z/OS

   NOTE: According on your selection, the Siebel Web Client installer validates that the correct database connectivity software has been installed. If it has not been installed, then you must exit the Siebel Web Client installer, install the required software, and then restart the Siebel Web Client installer.

12 (Siebel Developer Web Client only) In the Database Identification screen, enter the following information, and click Next. Specify information for the database that you specified in Step 11 on page 184:
   - For Oracle Database, specify the Database Alias and Table Owner.
   - For IBM DB2, specify the Database Alias and Table Owner.
   - For IBM DB2 for z/OS, specify the Database Alias (as defined in DB2 Connect) and Table Owner or Schema Qualifier.

Enter the data that you previously specified in the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.”

13 (Siebel Developer Web Client only) In the File System Server Information screen, specify the directory path for a network-based Siebel File System by typing it directly or by clicking Browse. Then click Next.

   NOTE: For the Siebel File System path, you can use a UNC share name (for example, \SRV1\siebfile) or a mapped drive (for example, K:siebfile). For more information, see “File and Directory Naming Conventions” on page 297. See also “Creating the Siebel File System” on page 298.
14  (Siebel Developer Web Client only) In the Remote Server Information screen, click Next to accept the default. (This screen is primarily for Siebel Mobile Web Client.)

15  (Siebel Developer Web Client only) In the Enterprise Server Information screen, specify the address of the Siebel Gateway and the name of the Siebel Enterprise to which this Siebel Developer Web Client will connect for administration. Then click Next.

The Gateway Address is the network name or the IP address of the computer on which the Siebel Gateway is installed. To enter a specific port number, append the Gateway Address string with a colon and the desired port number.

The Enterprise Server name is the name of the Siebel Enterprise under which the Siebel Servers that support the server database were installed.

16  (Siebel Developer Web Client only) In the Server Request Broker Information screen, specify the Request Server Name, and click Next.

This value is the name of the Siebel Server on which the Server Request Broker component is operating. This component is used for dynamic assignment and other interactive operations.

17  (Siebel Developer Web Client only) In the Search Server Information screen, if you will use a search server, then enter the following for the server computer where the search server operates. Then click Next.

   - **Search Server Hostname.** The default value is localhost.
   - **Search Server Port Number.** The default value is 2048.

**NOTE:** For system requirements and other information about deploying a search server, see *Siebel Search Administration Guide*.

18  (Siebel Mobile Web Client only) In the Sample DB Selection screen of the Siebel Web Client installer, you can optionally specify that you want to install the sample database. Specify the path to the installed 32-bit Oracle Database Client, whether or not you install the sample database.

19  In the Summary screen, review the information presented.

This screen displays the location where the Siebel Web Client will be installed. Before you proceed, confirm that you have met all of the installation requirements, such as for disk space. Then do one of the following:

   - To begin installing the Siebel Web Client software, click Install. You can also click Install after saving a response file.
   - To save a response file to use for an unattended installation later, click Save Response File. If you are not also installing at this time, then click Cancel after you save the response file. For information about performing unattended installations, see “Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200.

The Installation Progress screen appears. The Siebel Web Client software is installed into the directory that you specified in Step 7 on page 183.

20  When the Next button becomes available, the installation is complete. Click Next.

The Finish Installation screen appears. This screen indicates whether the installation was successful and shows the location of the installer log file. You can access this file to review the installation results.
21 To close the installer, click Close.

The Siebel Web Client installation is now finished. Siebel application shortcuts are created in the program folder. For more information about these shortcuts, see “Siebel Web Client Shortcuts” on page 212.

22 After installing the Siebel Web Client software:

- Verify the Siebel Web Client installation, as described in “Verifying Installation for the Siebel Web Client” on page 247.
- Install the latest Siebel Patchset release, where available. Then verify the installation again.
- Perform any additional postinstallation steps, as described in Chapter 6, “Additional Postinstallation and Configuration Tasks.”

23 Repeat this procedure on each computer where you are installing Siebel Web Client.

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## Installing the Siebel Web Client as a Migration Installation

Use the following procedure to install the Siebel Web Client as a migration installation for the current release, Siebel CRM version 17.0. Migration installation is a type of patch installation. The information applies to both the Siebel Mobile Web Client and the Siebel Developer Web Client.

**NOTE:** Use this procedure only when an earlier version of the Siebel Web Client is already installed (Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x). Otherwise, you must follow the steps in “Installing the Siebel Web Client as a New Installation” on page 182 instead.

During a migration installation, the original Siebel Web Client installation directory is renamed from `OriginalName` to `OriginalName_pre17.0`. For example, if the original installation directory name (`OriginalName`) was `Client_1`, then this directory is renamed to `Client_1_pre17.0`. The new Siebel Web Client installation directory is named `OriginalName`, such as `Client_1`. Retain the original installation directory, in case you choose to perform a rollback uninstallation later. For more information, see “Rolling Back the Siebel Web Client” on page 272.

Oracle Database XE is always installed for Siebel Mobile Web Client. You can optionally install the sample database in a migration installation of Siebel Mobile Web Client. Do not install the sample database if you plan to initialize a local database through Siebel Remote. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

This topic is part of “Installing the Siebel Web Client” on page 181.

This task is a step in “Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)” on page 33.

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### To install the Siebel Web Client as a migration installation

1. Review “About Installing the Siebel Web Client or Siebel Tools” on page 179. See also “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

2. Perform any premigration tasks that might be necessary, as noted in “Additional Tasks for Migration Installations” on page 57.
3 Exit any Siebel software on the client computer where you are installing the current release.

NOTE: For a Siebel Mobile Web Client using the Siebel QuickStart feature, you must also exit the QuickStart agent if it is running. To do this, right-click the QuickStart icon in the system tray, and then choose Exit. Siebel QuickStart is no longer supported, as of Siebel Innovation Pack 2016.

4 Perform any additional premigration tasks that might be necessary. For example, you might need to upgrade the 32-bit Oracle Database Client version installed on your computer.

5 In Windows Explorer, navigate to the Siebel image location for the current release, and then to the directory where the installer is located. Navigate to Siebel_Image\Windows\Client\Siebel_Web_Client\Disk1\install.

In this path, Siebel_Image is the directory for your version-specific Siebel installation image, such as C:\Siebel_Install_Image\17.0.0.0.

6 Before you run the installer to perform the migration installation of the Siebel Web Client, run the following command:

   module.exe -debug -silent -attachhome ORACLE_HOME_NAME=Oracle_Home_Name
   ORACLE_HOME=Oracle_Home

   For example, you might enter a command like this, depending on the Oracle home name and on the original installation directory:

   module.exe -debug -silent -attachhome ORACLE_HOME_NAME=CLIENT_HOME
   ORACLE_HOME=c:\Siebel\Client

7 To start the Siebel Web Client installer, double-click setup.bat.

   The Siebel Web Client installer displays the Welcome screen.

8 Click Next.

   The Select Installation Task screen appears.

9 To perform a migration installation of the Siebel Web Client software where an existing prior installation of version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x is present, choose Migration Installation, and click Next.

   The Installation Migration Details screen appears.

10 Confirm or select the name and location of your existing installation, and then click Next. Do the following:

   ■ Confirm the existing installation name, or select it from the drop-down list.
   ■ Confirm the existing installation location, or select it from the drop-down list.

   For more information about Oracle home and installation path requirements, see “File and Directory Naming Conventions” on page 297.

11 (Siebel Mobile Web Client only) In the Sample DB Selection screen of the Siebel Web Client installer, you can optionally specify that you want to install the sample database. Specify the path to the installed 32-bit Oracle Database Client, whether or not you install the sample database.
12 In the Summary screen, review the information presented.

This screen displays the location where the Siebel Web Client will be installed. Before you proceed, confirm that you have met all of the installation requirements, such as for disk space. Then do one of the following:

■ To begin installing the Siebel Web Client software, click Install. You can also click Install after saving a response file.

■ To save a response file to use for an unattended installation later, click Save Response File. If you are not also installing at this time, then click Cancel after you save the response file. For information about performing unattended installations, see “Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200.

The Installation Progress screen appears. The Siebel Web Client software is installed into the directory that you specified in Step 10 on page 187.

13 When the Next button becomes available, the installation is complete. Click Next.

The Finish Installation screen appears. This screen indicates whether the installation was successful and shows the location of the installer log file. You can access this file to review the installation results. This screen also shows the new location of the original installation, which the installer moved before it performed the new installation.

14 Review the report that is generated about any conflicts between your customized files and the files that are delivered by the Siebel Web Client installer. As needed, copy any applicable customized files from the original installation to the new migrated installation.

Conflicts are identified in the file overwrittenfiles_timestamp.log, which is created in the SIEBEL_CLIENT_ROOT\cfgtool\logs\oui directory (in the new Siebel Web Client installation).

15 To close the installer, click Close.

The Siebel Web Client installation is now finished. Siebel application shortcuts are created in the program folder. For more information about these shortcuts, see “Siebel Web Client Shortcuts” on page 212.

16 After installing the Siebel Web Client software:

■ Verify the Siebel Web Client installation, as described in “Verifying Installation for the Siebel Web Client” on page 247.

■ Install the latest Siebel Patchset release, where available. Then verify the installation again.

■ Perform any additional postinstallation steps, as described in Chapter 6, "Additional Postinstallation and Configuration Tasks." See also “Additional Tasks for Migration Installations” on page 57.

17 Repeat this procedure on each computer with a Siebel Web Client installation to be migrated.
Installing Siebel Tools

This topic provides instructions for installing the Siebel Tools Client and specified Siebel language packs. Siebel Tools is an integrated environment used by developers for configuring Siebel Business Applications.

**NOTE:** This topic includes instructions for installing Siebel Tools as a new installation or as a migration installation. For an existing installation, you perform a migration installation instead of a new installation.

The language that the installer displays is the one that corresponds to the current regional settings on the installation client computer.

This topic contains the following information:

- "Installing Siebel Tools as a New Installation" on page 189
- "Installing Siebel Tools as a Migration Installation" on page 193

**Related Topics**

- "About Installing the Siebel Web Client or Siebel Tools" on page 179
- “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
- “Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200
- “About the Workspaces Feature in Siebel Tools and the Siebel Runtime Repository” on page 205
- “Verifying Installation for Siebel Tools” on page 243
- “Uninstalling Siebel Web Clients or Siebel Tools” on page 270
- “Requirements for Installing Siebel Tools” on page 324

**Related Books**

*Using Siebel Tools*
*Configuring Siebel Business Applications*
*Siebel Remote and Replication Manager Administration Guide*
*Configuring Siebel Open UI*
*Siebel Developer’s Reference*

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**Installing Siebel Tools as a New Installation**

Use the following procedure to install Siebel Tools as a new installation for Siebel CRM version 17.0.

**NOTE:** Use this procedure only when Siebel Tools is not already installed. Where an earlier version of Siebel Tools is already installed, you perform a migration installation instead, as described in "Installing Siebel Tools as a Migration Installation" on page 193.
To install Siebel Tools as a new installation

1. Review “About Installing the Siebel Web Client or Siebel Tools” on page 179. See also “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

2. In Windows Explorer, navigate to the Siebel image location for Siebel CRM version 17.0. Then navigate to the directory where the installer is located. Navigate to `<Siebel_Image>\Windows\Client\Siebel_Tools\Disk1\install`.

   In this path, `<Siebel_Image>` is the directory for your version-specific Siebel network image, such as `C:\Siebel_Install_Image\17.0.0.0`.

3. To start the Siebel Tools installer, double-click setup.bat.

   The Siebel Tools installer displays the Welcome screen.

4. Click Next.

   The Select Installation Task screen appears. The New Installation task is selected by default.

5. To perform a new installation of Siebel Tools software where no existing installation of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x is present, click Next. Also click Next if you are installing the local database into an existing installation of Siebel Tools for the current release.

   The New Installation Details screen appears.

6. Enter a name for your installation and specify the installation location, and then click Next. (Note the installation name and location for future reference.) Note the following:

   - The default installation name (Oracle Home Name) is TOOLS_HOME. The value that you specify is used in the parent program folder name for the Siebel Tools client shortcut. (A separate program folder is created for the Oracle Universal Installer software.) If you have an existing installation, then you must specify a new name for the new installation.

   - The default installation path (Oracle Home Location) for a new installation is `C:\Siebel\Tools` or a similar value. Accept the default path or specify a different location by typing it directly or by clicking Browse. If you have an existing installation, then you must specify a new path for the new installation.
For more information about Oracle home and installation path requirements, see "File and Directory Naming Conventions" on page 297.

If you specified an existing installation of Siebel Tools for the current release in this screen, then the installer gives you the option of installing the local database into your existing installation. Go to Step 13 on page 192. Otherwise, go to the next step.

For a new installation, the Select Languages screen appears. All of the languages that were included in the Siebel network image for Siebel Tools are available for selection.

7 Select the languages that you want to install, and click Next. You must select at least one language in order to proceed.

To select a language, you click the name of the language in the Available box and then use the arrow controls to move it into the Selected box.

You specify languages to install in order to run applications using these languages. The files that are specific to the languages chosen in this step will be copied to your computer.

**NOTE:** You must install Siebel Tools with the U.S. English (ENU) language pack. You can also install other Siebel language packs.

**NOTE:** You can add languages to an existing installation by running the installer in unattended mode (silent mode). For more information about installing and deploying languages, see "Installing and Deploying Siebel Business Applications with Multiple Languages" on page 163.

8 In the Database Server screen, select the type of database server that you are using for Siebel Business Applications. Choose one of the following, and click Next:

- Oracle Database Server
- IBM DB2 UDB for Windows and UNIX
- IBM DB2 UDB for z/OS

9 In the Database Identification screen, enter the following information, and click Next. Specify information for the database that you specified in Step 8 on page 191:

- For Oracle Database, specify the Database Alias and Table Owner.
- For IBM DB2, specify the Database Alias and Table Owner.
- For IBM DB2 for z/OS, specify the Database Alias (as defined in DB2 Connect) and Table Owner or Schema Qualifier.

Enter data that you previously specified in the worksheet in Appendix A, "Siebel Deployment Planning Worksheet."

10 In the File System Server Information screen, specify the directory path for a network-based Siebel File System by typing it directly or by clicking Browse. Then click Next.

**NOTE:** For the Siebel File System path, you can use a UNC share name (for example, \SRV1\siebfile) or a mapped drive (for example, K:\siebelFS). For more information, see "File and Directory Naming Conventions" on page 297. See also "Creating the Siebel File System" on page 298.
11 In the Remote Server Information screen, specify the name of the Siebel Server on which you are running the Siebel Remote Server components. Then click Next.

The Siebel Remote Server components are required for initializing and synchronizing the local database on the Siebel Tools computer.

12 In the Enterprise Server Information screen, specify the address of the Siebel Gateway and the name of the Siebel Enterprise to which Siebel Tools will connect for administration. Then click Next.

The Gateway Address is the network name or the IP address of the computer on which the Siebel Gateway is installed. To enter a specific port number, append the Gateway Address string with a colon and the desired port number.

The Enterprise Server is the name of the Siebel Enterprise under which the Siebel Servers that support the server database were installed.

13 In the Local DB Selection screen of the Siebel Tools installer, you can optionally specify that you want to install the local database. If you checked Install Local DB, then you must also specify an appropriate user name and password. Also specify the path to the installed 32-bit Oracle Database Client, whether or not you install the local database.

14 In the Summary screen, review the information presented.

This screen displays the location where Siebel Tools will be installed. Before you proceed, confirm that you have met all of the installation requirements, such as for disk space. Then do one of the following:

- To begin installing the Siebel Tools software, click Install. You can also click Install after saving a response file.
- To save a response file to use for an unattended installation later, click Save Response File. If you are not also installing at this time, then click Cancel after you save the response file. For information about performing unattended installations, see “Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200.

The Installation Progress screen appears. The Siebel Tools software is installed into the directory that you specified in Step 6 on page 190.

15 When the Next button becomes available, the installation is complete. Click Next.

The Finish Installation screen appears. This screen indicates whether the installation was successful and shows the location of the installer log file. You can access this file to review the installation results.

16 To close the installer, click Close.

Siebel Tools installation is now finished. The Siebel Tools shortcut was created in the program folder.

17 After installing the Siebel Tools software:

- Verify the Siebel Tools installation, as described in “Verifying Installation for Siebel Tools” on page 243.
- Install the latest Siebel Patchset release, where available. Then verify the installation again.
Perform any additional postinstallation steps, as described in Chapter 6, "Additional Postinstallation and Configuration Tasks."

18 Repeat this procedure on each computer where you are installing Siebel Tools.

## Installing Siebel Tools as a Migration Installation

Use the following procedure to install Siebel Tools as a migration installation for the current release, Siebel CRM version 17.0. Migration installation is a type of patch installation.

**NOTE:** Use this procedure only when an earlier version of Siebel Tools is already installed (Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x). Otherwise, you must follow the steps in "Installing Siebel Tools as a New Installation" on page 189 instead.

During a migration installation, the original Siebel Tools installation directory is renamed from `OriginalName` to `OriginalName_pre17.0`. For example, if the original installation directory name (`OriginalName`) was `Tools_1`, then this directory is renamed to `Tools_1_pre17.0`. The new Siebel Tools installation directory is named `OriginalName`, such as `Tools_1`. Retain the original installation directory, in case you choose to perform a rollback uninstallation later. For more information, see "Rolling Back Siebel Tools" on page 273.

Oracle Database XE is always installed for Siebel Tools. You can optionally install the local database in a migration installation of Siebel Tools. Do not install the local database if you plan to initialize a local database through Siebel Remote. For more information, see "Installing and Using Oracle Database XE for the Local or Sample Database" on page 195.

This topic is part of "Installing Siebel Tools" on page 189.

This task is a step in "Roadmap for Installing Siebel Business Applications in a Migration Installation Case (Existing Installation)" on page 33.

### To install Siebel Tools as a migration installation

1. Review "About Installing the Siebel Web Client or Siebel Tools" on page 179. See also "Installing and Using Oracle Database XE for the Local or Sample Database" on page 195.

2. Perform any premigration tasks that might be necessary, as noted in "Additional Tasks for Migration Installations" on page 57. For example, your administrator might want you to check in any changes you have made to objects in your existing local database.

3. Exit any Siebel software on the Siebel Tools Client computer where you are installing the current release.

4. Perform any additional premigration tasks that might be necessary. For example, you might need to upgrade the 32-bit Oracle Database Client version installed on your computer.

5. In Windows Explorer, navigate to the Siebel image location for the current release, and then to the directory where the installer is located. Navigate to `Siebel_Image\Windows\Client\Siebel_Tools\Disk1\install`.

In this path, `Siebel_Image` is the directory for your version-specific Siebel installation image, such as `C:\Siebel\Install\Image\17.0.0.0`. 
6 Before you run the installer to perform the migration installation of Siebel Tools, run the following command:

```
module.exe -debug -silent -attachhome ORACLE_HOME_NAME=Oracle_Home_Name
ORACLE_HOME=Oracle_Home
```

For example, you might enter a command like this, depending on the Oracle home name and on the original installation directory:

```
module.exe -debug -silent -attachhome ORACLE_HOME_NAME=TOOLS_HOME
ORACLE_HOME=c:\Siebel\Tools
```

7 To start the Siebel Tools installer, double-click setup.bat.

   The Siebel Tools installer displays the Welcome screen.

8 Click Next.

   The Select Installation Task screen appears.

9 To perform a migration installation of the Siebel Tools software where an existing prior installation of version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x is present, choose Migration Installation, and click Next.

   The Installation Migration Details screen appears.

10 Confirm or select the name and location of your existing installation, and then click Next. Do the following:

   - Confirm the existing installation name, or select it from the drop-down list.
   - Confirm the existing installation location, or select it from the drop-down list.

   For more information about Oracle home and installation path requirements, see "File and Directory Naming Conventions" on page 297.

11 In the Local DB Selection screen of the Siebel Tools installer, you can optionally specify that you want to install the local database. If you checked Install Local DB, then you must also specify an appropriate user name and password. Also specify the path to the installed 32-bit Oracle Database Client, whether or not you install the local database.

12 In the Summary screen, review the information presented.

   This screen displays the location where Siebel Tools will be installed. Before you proceed, confirm that you have met all of the installation requirements, such as for disk space. Then do one of the following:

   - To begin installing the Siebel Tools software, click Install. You can also click Install after saving a response file.
   - To save a response file to use for an unattended installation later, click Save Response File. If you are not also installing at this time, then click Cancel after you save the response file. For information about performing unattended installations, see "Installing Siebel Web Clients and Siebel Tools in Unattended Mode" on page 200.

   The Installation Progress screen appears. The Siebel Tools software is installed into the directory that you specified in Step 10 on page 194.
13 When the Next button becomes available, the installation is complete. Click Next.

The Finish Installation screen appears. This screen indicates whether the installation was successful and shows the location of the installer log file. You can access this file to review the installation results. This screen also shows the location of the original installation, which the installer moved before it performed the new installation.

14 Review the report that is generated about any conflicts between your customized files and the files that are delivered by the Siebel Tools installer. As needed, copy any applicable customized files from the original installation to the new migrated installation.

Conflicts are identified in the file overwrittenfiles_timestamp.log, which is created in the SIEBEL_TOOLS_ROOT\cfgtoollogs\oui directory (in the new Siebel Tools installation).

15 To close the installer, click Close.

The Siebel Tools installation is now finished. The Siebel Tools shortcut was created in the program folder.

16 After installing the Siebel Tools software:

- Verify the Siebel Tools installation, as described in “Verifying Installation for Siebel Tools” on page 243.

- Install the latest Siebel Patchset release, where available. Then verify the installation again.

- Perform any additional postinstallation steps, as described in Chapter 6, “Additional Postinstallation and Configuration Tasks.” See also “Additional Tasks for Migration Installations” on page 57.

17 Repeat this procedure on each computer with a Siebel Tools installation to be migrated.

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**Installing and Using Oracle Database XE for the Local or Sample Database**

In the current release, Oracle Database XE is provided as the database platform for the local database for Siebel Tools and for Siebel Mobile Web Client, or for the sample database for Siebel Mobile Web Client. Oracle Database XE software is always installed for Siebel Tools or Siebel Web Client (Siebel Mobile Web Client only), for a new or migration installation.

Oracle Database XE is installed and used in the following cases:

- **Local database for Siebel Tools.** The Siebel Tools installer installs Oracle Database XE and provides the option to install the local database, as described in “Installing Siebel Tools” on page 189. Alternatively, the installer installs a database template, and you initialize the local database through the Siebel Remote server.

- **Local database for Siebel Mobile Web Client.** The Siebel Web Client installer installs Oracle Database XE and a database template (if you do not install the sample database instead), and you initialize the local database through the Siebel Remote server. Support for the local database for this client was added in Siebel Innovation Pack 2016 and later. This local database is also called the remote database.
Installing Siebel Web Clients and Siebel Tools | ■ Installing and Using Oracle Database XE for the Local or Sample Database

- **Sample database for Siebel Mobile Web Client.** The Siebel Web Client installer installs Oracle Database XE and provides the option to install the sample database, as described in “Installing the Siebel Web Client” on page 181.

**NOTE:** SAP SQL Anywhere is no longer provided for the local or sample database. The Siebel Sample Database is no longer provided through a separate installer.

### Requirements for Installing and Using Oracle Database XE

For platform requirements for installing and using Siebel Tools and Siebel Web Clients, see the Certifications tab on My Oracle Support. See also “Requirements for Installing Siebel Web Clients” on page 321 and “Requirements for Installing Siebel Tools” on page 324. See also the documentation for Oracle Database Express Edition on Oracle Help Center.

- **Siebel image requirement.** For your users to be able to install the local database or sample database on client computers, you must include the necessary JAR file in the Siebel image for Siebel Innovation Pack 2017. When you create the Siebel image, you can select the options that will support users 64-bit versions of Microsoft Windows. For more information, see “About the Siebel Network Image” on page 353. See also “About Siebel CRM Releases” on page 280.

- **Oracle Database Client requirement.** For your users to be able to use Oracle Database XE on the client computer, the 32-bit Oracle Database Client must be installed. The Siebel Tools and Siebel Web Client installers prompt for the installed location of this database client, which must be installed at the location you specified in order for users to be able to access the local or sample database.

  Because Oracle Database XE is always installed for Siebel Tools or Siebel Mobile Web Client, the same Oracle Database Client requirement also applies if you plan to initialize a local database through Siebel Remote.

  For the version of Oracle Database XE that is installed and used with Siebel Web Client and Siebel Tools, see the Certifications tab on My Oracle Support.

- **Disable antivirus software.** You might need to disable antivirus software while installing Oracle Database XE and the local database or sample database for Siebel Tools or Siebel Mobile Web Client.

### About Installing the Local Database or Sample Database

You can install the local database in a new or migration installation of Siebel Tools or install the sample database in a new or migration installation of Siebel Mobile Web Client. For existing installations of the current release, the installers also provide the option of installing the local database or the sample database, if you had not previously installed it.

When you specify to install the local or sample database, the installation is done silently: no separate screens are displayed for this purpose. If Oracle Database XE is already installed, then it is not installed again, but the local database or sample database is still installed.

You can optionally install Siebel Tools and the local database or install Siebel Web Client and the sample database in unattended mode, as described in “Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200.
Installing the local database for Siebel Tools requires you to provide an appropriate user name and password when the installer prompts for them. For unattended installation, include the user name in the response file and specify the password at the command line when you execute the response file.

**CAUTION:** If Oracle Database XE was previously installed for any non-Siebel use, then you must uninstall it before proceeding. Otherwise, the existing Oracle Database XE installation would be used and the local or sample database files would be created under that existing installation (overwriting any existing database).

Only one instance of Oracle Database XE and one database are valid on a single computer. Installing a new database overwrites an existing database. For example, on the Siebel Mobile Web Client, if the local database or the sample database is already present, then this database’s DBF files are overwritten if you add the other database. However, you can support multiple instances of Oracle Database XE databases by using the OracleXEConfig.bat utility.

**NOTE:** You can use the OracleXEConfig.bat utility to create, manage, and switch between different installed instances of Oracle Database XE databases on the same computer, such as the local database and the sample database. The \Si\e\b\e\l\_t\o\o\l\s\_r\o\o\t\\bin directory contains the files OracleXEConfig.bat and XEConfig.jar. To run OracleXEConfig.bat on a Siebel Mobile Web Client installation, you can also copy these files to the \Si\e\b\e\l\_c\l\i\e\n\t\_r\o\o\t\\bin directory.

If you did not install the local database when you installed Siebel Tools or install the sample database when you installed Siebel Web Client for the current release, then you can add it to the existing installation later. To do this, start the Siebel Tools or Siebel Web Client installer as if for a new installation, and then provide the existing Oracle home information.

After you install the Siebel Web Client or Siebel Tools, verify the installation, as described in "Verifying Installation for the Siebel Web Client" on page 247 or "Verifying Installation for Siebel Tools" on page 243. Also verify the Oracle Database XE installation, as described in "Verifying Installation for Oracle Database XE" on page 249.

### About Data Sources for the Local Database or Sample Database

The Siebel Tools and Siebel Web Client installers also create data sources as follows, if they did not already exist:

- When you install Siebel Tools, the LOCAL_XE data source is created in all cases (whether or not you install the local database). You use this data source for connections to the local database that you installed, or to connect to a local database that you initialize through Siebel Remote. The corresponding section of the tools.cfg file is [LOCAL_XE].

  If the local database has been extracted for the user on the Siebel Remote server, then you initialize this database by logging in using LOCAL_XE, as described in *Configuring Siebel Business Applications* and *Using Siebel Tools*.

- When you install Siebel Mobile Web Client without installing the sample database, the LOCAL_XE data source is created, which you use for connections to a local database. The corresponding section of the Siebel application configuration file is [LOCAL_XE].

  If the local database has been extracted for the user on the Siebel Remote server, then you initialize this database by logging in using LOCAL_XE, as described in *Siebel Remote and Replication Manager Administration Guide*. 
When you install Siebel Mobile Web Client with the sample database, the SAMPLE_XE data source is created, which you use for connections to the sample database. The corresponding section of the Siebel application configuration file is [SAMPLE_XE].

**About Migration Installations**

Before any migration installation tasks are performed, local database users must synchronize any changes that must be preserved.

In a migration installation where Oracle Database XE and the local or sample database were previously installed, this instance of Oracle Database XE software migrates to the new installation. No database from the prior release is migrated. A new database and data source is created under the new instance according to the installer selections the user made, as in a new installation.

**About the Local Database for Siebel Tools**

As noted, you use the procedure in "Installing Siebel Tools" on page 189 to install the local database for Siebel Tools in a new or migration installation. The user connects to the LOCAL_XE data source to log in to this local database. The data in each local database is a subset of the server database, as determined by each user’s visibility rules.

Additional steps are necessary to prepare the local database for use by the Siebel Tools developer. After installing Oracle Database XE and the local database for Siebel Tools, you must set up this database based on your company’s database customizations and based on the particular developer who will use this local database. For example, to prepare the local database for use by the developer user, you can run the local database setup script. For more information about this task, see Configuring Siebel Business Applications.

Alternatively, you might choose to initialize the local database through Siebel Remote, as described in Configuring Siebel Business Applications and Using Siebel Tools. In this case, do not install the local database with Siebel Tools. The user connects to the LOCAL_XE data source to initialize the local database. When logging in to a local database for the first time, the user is automatically prompted to connect to the Siebel Server and download the local database. Users must attempt this only after a local database has been extracted for them by the system administrator.

**About the Local Database for Siebel Mobile Web Client**

For information about initializing the local database for Siebel Mobile Web Client through Siebel Remote, see Siebel Remote and Replication Manager Administration Guide. In this case, do not install the sample database with Siebel Mobile Web Client. The data in each local database is a subset of the server database, as determined by each user’s visibility rules.

The user connects to the LOCAL_XE data source to initialize the local database. When logging in to a local database for the first time, the user is automatically prompted to connect to the Siebel Server and download the local database. Users must attempt this only after a local database has been extracted for them by the system administrator.
About the Sample Database for Siebel Mobile Web Client

As noted, you use the procedure in “Installing the Siebel Web Client” on page 181 to install the sample database for Siebel Mobile Web Client in a new or migration installation. Connect to the SAMPLE_XE data source to log in to this sample database.

The sample database contains example data of various kinds to help you understand how Siebel Business Applications work. The sample database contains schema changes, repository changes, and seed data for Siebel CRM functionality through the current release. For more information about some of the content in the sample database, see Siebel Demo Users Reference.

After you have installed the sample database, you can run Siebel demo applications, such as those described in “Siebel Web Client Shortcuts and Startup Options” on page 212. You can also customize shortcuts, as described in the same topic.

About Uninstalling Oracle Database XE

Oracle Database XE and the local database or sample database are not uninstalled when you uninstall the Siebel Web Client or Siebel Tools software, in either a full uninstallation or a rollback uninstallation. For information about uninstalling Oracle Database XE, see “Uninstalling Oracle Database XE” on page 274.

**NOTE:** In a migration installation case, you might choose to uninstall an existing installation of the Siebel Sample Database that uses SAP SQL Anywhere, because this database is not relevant to your migration. For information about uninstalling earlier versions of Siebel CRM software, see “About Uninstalling Earlier Versions of Siebel Business Applications” on page 275.

About the Workspaces Feature and Siebel Web Tools

Workspaces are a feature of Siebel Tools that provides an alternative to using local databases for developers to make and test changes to repository data. All Siebel Tools developers in a given Siebel development environment must either use a local database or use workspaces. Siebel Web Tools, a browser-based alternative to the traditional Siebel Tools client, uses an Application Object Manager component and the server database instead of a local database. For more information, see “About the Workspaces Feature in Siebel Tools and the Siebel Runtime Repository” on page 205. See also Using Siebel Tools.

Related Topics

“Installing the Siebel Web Client” on page 181
“Installing Siebel Tools” on page 189
“Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 200
“About the Workspaces Feature in Siebel Tools and the Siebel Runtime Repository” on page 205
“Siebel Web Client Shortcuts and Startup Options” on page 212
“Verifying Installation for Oracle Database XE” on page 249
“Uninstalling Oracle Database XE” on page 274
“About Siebel CRM Releases” on page 280
“About the Siebel Network Image” on page 353
Installing Siebel Web Clients and Siebel Tools in Unattended Mode

The installer programs for Siebel Mobile or Developer Web Client and Siebel Tools support an optional unattended installation, which is an installation that has been preconfigured to require no user input when the installation program runs. You can save a response file in a regular installer session. Then you can run the installer at the command line with certain flags appended to the installer command to execute the response file. Together, these tasks constitute installing in unattended mode.

You can perform unattended installations for better performance when installing software on multiple client computers. Or, you might perform unattended installations if user input during an installation is not allowed in your environment, as might be the case in some secure environments. An unattended installation prepackages all of the required parameters so that you only have to execute a command to perform the installation.

You can use unattended mode to perform a new installation or migration installation of the current release, or to add languages to an existing installation of the current release. To add languages, you must use this method.

**CAUTION:** Unattended installations provide no direct feedback or error notification. Therefore, you must test your settings in a development environment before system-wide deployment in a production environment. It is strongly recommended that you become thoroughly familiar with GUI installation for any Siebel modules for which you intend to perform unattended installation.

This topic contains the following information:

- “Guidelines for Installing Siebel Web Clients and Siebel Tools in Unattended Mode” on page 201
- “Saving an Installation Response File” on page 201
- “Editing an Oracle-Provided Installation Response File” on page 203
- “Installation Response File Entries for Installing Oracle Database XE” on page 203
- “Performing an Installation in Unattended Mode” on page 203

**Related Topics**

- “Installing and Deploying Additional Languages” on page 171
- “Installing the Siebel Web Client” on page 181
- “Installing Siebel Tools” on page 189
- “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
- “Verifying Installation for the Siebel Web Client” on page 247
Guidelines for Installing Siebel Web Clients and Siebel Tools in Unattended Mode

Review the following guidelines for installing Siebel Web Clients and Siebel Tools in unattended mode:

- **Keep track of the response file results.** Because the unattended installation session is controlled by the response file, you must keep careful track of the result that each response file will yield when you perform an unattended installation.

- **Create the response file on a computer similar to the target computer.** When you run the installer as described in “Saving an Installation Response File” on page 201, validations are performed as if you were performing a real installation.

  It is strongly recommended that you run the installer on a computer that has similar resources and configuration settings as the target computer on which the installation will be performed, as described in “Performing an Installation in Unattended Mode” on page 203. Unattended installations must meet all of the documented requirements, including those described in “Requirements for Installing Siebel Web Clients” on page 321 and “Requirements for Installing Siebel Tools” on page 324.

- **Validate the installation.** Validate each installation after it has completed, as described in “Verifying Installation for the Siebel Web Client” on page 247 and “Verifying Installation for Siebel Tools” on page 243.

To install Siebel Web Client or Siebel Tools and the specified Siebel language packs using unattended mode, perform the following tasks:

- “Saving an Installation Response File” on page 201
- “Editing an Oracle-Provided Installation Response File” on page 203
- “Performing an Installation in Unattended Mode” on page 203

**Saving an Installation Response File**

Perform the following steps to save an installation response file to be used in an unattended installation of Siebel Web Client or Siebel Tools.

**NOTE:** If you are adding languages to an existing installation of the current release, then do not use this procedure. Instead, follow the procedure in “Editing an Oracle-Provided Installation Response File” on page 203.
To save an installation response file

1. Navigate to the Siebel image location where the installer is located.
2. Start the installer for Siebel Web Client or Siebel Tools.
   
   
   For information about starting these installers, see “Installing the Siebel Web Client” on page 181 and “Installing Siebel Tools” on page 189.
3. Provide input to the installer wizard, as in a normal GUI installation.
4. In the Summary screen, click Save Response File.
5. Specify the location of the response file, for example, C:\temp\clientinstall.rsp, and save the file.

   A response file is generated that includes data that is derived from the input that you made during the installer session.
6. After the response file is saved, click Cancel.

   The installer session ends.

   In addition to saving the response file at the location that you specified at the command line, the installer creates the Siebel installation directory at the location that you specified in the installer session (for example, C:\temp\clientinstall.rsp). Although the Siebel module is not installed (because you clicked Cancel), this directory contains a subdirectory called inventory, which includes information about the product inventory.

   NOTE: You might also edit the response file to add entries for different cases of installing Oracle Database XE for the local or sample database for Siebel Tools or Siebel Web Client, as described in “Installation Response File Entries for Installing Oracle Database XE” on page 203.

   See “Performing an Installation in Unattended Mode” on page 203 for information about performing a Siebel Web Client or Siebel Tools installation in unattended mode, using the response file that you just generated.
Editing an Oracle-Provided Installation Response File
If you are adding languages to an existing Siebel Web Client or Siebel Tools installation, then you must edit an Oracle-provided installation response file instead of saving a response file from the installer. For detailed information about the task of adding languages, see “Installing and Deploying Additional Languages” on page 171.

Installation Response File Entries for Installing Oracle Database XE
You use different response file options for different cases of installing Oracle Database XE for the local or sample database for Siebel Tools or Siebel Web Client, as described here. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

To install Siebel Tools with a local database, add entries like the following to your installation response file. Specify the same user name that you will use when you execute the response file (you must also use the \texttt{-passwd} option).

\begin{verbatim}
INSTALL_LOCAL_OR_SAMPLE_DB=true
LOCAL_DB_USERNAME=user_name
ORACLE_CLIENT_PATH=Oracle_DB_install_path
\end{verbatim}

To install Siebel Tools without installing a local database (for example, where you plan to initialize a local database through Siebel Remote), add entries like the following to your installation response file:

\begin{verbatim}
INSTALL_LOCAL_OR_SAMPLE_DB=false
LOCAL_DB_USERNAME=""
ORACLE_CLIENT_PATH=Oracle_DB_install_path
\end{verbatim}

To install Siebel Web Client where you plan to initialize a local database through Siebel Remote, add entries like the following to your installation response file:

\begin{verbatim}
INSTALL_LOCAL_OR_SAMPLE_DB=false
ORACLE_CLIENT_PATH=Oracle_DB_install_path
\end{verbatim}

To install Siebel Web Client with the sample database, add entries like the following to your installation response file:

\begin{verbatim}
INSTALL_LOCAL_OR_SAMPLE_DB=true
ORACLE_CLIENT_PATH=Oracle_DB_install_path
\end{verbatim}

Performing an Installation in Unattended Mode
Perform the following steps to perform an unattended installation of Siebel Web Client or Siebel Tools.

First, you must save an installation response file as described in “Saving an Installation Response File” on page 201 or prepare an installation response file for adding languages as described in “Editing an Oracle-Provided Installation Response File” on page 203.

\textbf{NOTE:} You might also edit the response file to add entries for different cases of installing Oracle Database XE for the local or sample database for Siebel Tools or Siebel Web Client, as described in “Installation Response File Entries for Installing Oracle Database XE” on page 203.
Then you run the installer command as shown in the following procedure. For detailed information about the task of adding languages, see “Installing and Deploying Additional Languages” on page 171.

To perform an installation in unattended mode

1. (For add language operations only) Uninstall any Siebel Patchset release that you have installed on top of Siebel CRM version 17.0, for each installed Siebel module for which you are adding languages.

2. Navigate to the Siebel image location where the installer is located.

3. Place the response file that you previously generated or edited into the correct Siebel image directory for the Siebel module (where the installer program is located), so that the file can be read when you run the installer.

   NOTE: Always back up any existing valid response file before replacing it with a new file.

4. Open a DOS command window.

5. Run a command like the following to run the Siebel Web Client or Siebel Tools installer in unattended mode:

   ```
   setup.bat -silent -responseFile path_to_installation_response_file -passwd password
   ```

   where:
   - `path_to_installation_response_file` is the full path and name of a response file to be executed (for example, `C:\temp\clientinstall.rsp`).
   - `password` is the password for the user name of the developer for this existing installation of Siebel Tools.

   NOTE: The -passwd option applies only to Siebel Tools installation with Oracle Database XE. See also “Installation Response File Entries for Installing Oracle Database XE” on page 203.

   This command runs the installer in unattended mode and specifies the location of the response file to be executed. No installer screens are displayed, and no further user input is prompted for after the installer starts. The installation result depends on the content of the specified response file.

6. Validate the installation after it has completed.

   For more information, see “Verifying Installation for the Siebel Web Client” on page 247 and “Verifying Installation for Siebel Tools” on page 243. See also “Verifying Installation for Oracle Database XE” on page 249.

7. (For add language operations only) Reinstall any previously installed Siebel Patchset release that you uninstalled in Step 1 on page 204. Then validate the installation again.
About the Workspaces Feature in Siebel Tools and the Siebel Runtime Repository

As of Siebel Innovation Pack 2016, Siebel Tools supports a new feature called workspaces, which provides a new way to manage the configuration of repository artifacts in Siebel Tools. This feature allows multiple developers to work against the same repository objects in the Siebel database. In Siebel Innovation Pack 2017, the Siebel Repository File (SRF) is no longer applicable, and is replaced by the Siebel runtime repository in the Siebel database.

A workspace in Siebel Tools provides a user with a sandbox in which to make changes to repository data. The feature makes sure that a developer’s work is isolated from that of other developers making changes to either the same objects or other objects of the application. Repository updates made in the developer’s environment can be published and tested without affecting other developers, until all updates are coordinated and published and delivered to the runtime repository for all Siebel Servers and Siebel Mobile Web Clients in test and production environments. For more information about using the workspaces feature in Siebel Tools, see Using Siebel Tools.

**NOTE:** Workspaces are an alternative to using local databases to make changes to repository data. All Siebel Tools developers in a given Siebel development environment must either use a local database or use workspaces.

Workspaces is a feature of both Siebel Tools and of Siebel Web Tools. Siebel Web Tools, a browser-based alternative to the traditional Siebel Tools client, uses an Application Object Manager component and the server database instead of a local database. For more information, see Using Siebel Tools.

**NOTE:** Siebel Tools and Siebel Web Tools always use the standard Siebel repository provided for the Siebel Innovation Pack 2017. You can optionally configure Siebel Application Object Managers and Siebel Mobile Web Client to use the same standard Siebel repository for troubleshooting purposes. To do so, set the EnableSafeboot parameter to True for Siebel Application Object Managers and Siebel Mobile Web Clients. For Siebel Mobile Web Clients, you set this parameter in the [InfraObjMgr] section of the application configuration file, such as uagent.cfg for Siebel Call Center.

Related Topics

"Installing Siebel Tools” on page 189

"Installing and Using Oracle Database XE for the Local or Sample Database” on page 195

Related Books

Using Siebel Tools

Siebel System Administration Guide
Installing Desktop Integration Siebel Agent on Client Computers

This topic provides information about installing software on user computers that enables users to use certain features in Siebel Business Applications that formerly were based on Java applets. This software is called Desktop Integration Siebel Agent, which is sometimes called DISA.

Many major browsers no longer support Netscape Plugin Application Programming Interface (NPAPI). Consequently, as of Siebel Innovation Pack 2016, Siebel Business Applications no longer provide special-purpose Java applets to extend application functionality in the browser. As of Siebel Innovation Pack 2016, Desktop Integration Siebel Agent is provided to support similar functionality.

Customers can install and deploy Desktop Integration Siebel Agent on user computers for use with employee applications such as Siebel Call Center. In the current release, Desktop Integration Siebel Agent supports inline editing of attachments, CTI hoteling, Send Email (F9) integration with Microsoft Outlook, and batch fulfillment printing.

For more information about installing and deploying Desktop Integration Siebel Agent, see Desktop Integration Siebel Agent Guide. See also 2107511.1 (Article ID) on My Oracle Support. For information about hoteling, see Siebel CTI Administration Guide. For more information about using Desktop Integration Siebel Agent for the Send Email (F9) integration with Microsoft Outlook, see 2117013.1 (Article ID) on My Oracle Support.

NOTE: Future Siebel Patchset releases for Siebel Innovation Pack 2017 might include an updated version of Desktop Integration Siebel Agent, which might support additional features. If a new version is distributed in a patchset release, then the new version will be described in the Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

Related Books
Desktop Integration Siebel Agent Guide
Siebel CTI Administration Guide
2117011.1 (Article ID) on My Oracle Support (about DISA)
2117013.1 (Article ID) on My Oracle Support (about Send Email integration with DISA)
Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support

Installing Outlook to Siebel Drag and Drop on Client Computers

This topic provides information about installing an addin for Microsoft Outlook on user computers that enables users to drag and drop email messages or email attachments into Siebel Business Applications.
In Siebel Innovation Pack 2017, customers can install the addin Outlook to Siebel Drag and Drop on user computers for use with employee applications. Installing this software enables a user to drag one or more email messages or email attachments from a Microsoft Outlook client and drop it onto a Siebel attachment applet. Each item is saved in an attachment record in the Siebel File System. You can then open this attachment like any other similar type of attachment that you have added to Siebel Business Applications. Outlook to Siebel Drag and Drop is sometimes abbreviated as SODD.

For more information about installing and deploying Outlook to Siebel Drag and Drop, see *Desktop Integration Siebel Agent Guide*. See also 2117212.1 (Article ID) on My Oracle Support.

**NOTE:** Future Siebel Patchset releases for Siebel Innovation Pack 2017 might include an updated version of the Outlook to Siebel Drag and Drop addin. If a new version of the addin is distributed in a patchset release, then the new version will be described in the *Siebel Patchset Installation Guide* for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

Outlook to Siebel Drag and Drop supports the following use cases:

- Drag one email message from the Microsoft Outlook client and drop it into the Siebel CRM application. The email message is saved in a single attachment record. Or drag multiple email messages, which are saved in multiple attachment records.
- Drag one email attachment from the Microsoft Outlook client and drop it into the Siebel CRM application. The email attachment is saved in a single attachment record. Or drag multiple email attachments, which are saved in multiple attachment records.

**Related Books**

*Desktop Integration Siebel Agent Guide*

*Siebel Fundamentals*

2117212.1 (Article ID) on My Oracle Support (about Outlook to Siebel Drag and Drop)

*Siebel Patchset Installation Guide* for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support

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**Siebel Client Deployment Requirements When Using Firewalls or Proxy Servers**

This topic describes Siebel client deployment requirements that apply when you use firewalls or proxy servers, such as reverse proxy servers. This topic applies to all Siebel applications that are deployed inside the firewall or using a proxy server.

**Deploying Siebel Business Applications Accessed Through a Firewall**

When deploying Siebel Business Applications that are accessed through a firewall, if you are planning to enable compression for traffic between the Siebel Application Interface and the Web browser, then your firewall must support the HTTP 1.1 protocol.
If your firewall does not support HTTP 1.1, then do not set HTTP 1.1-Compliant Firewall / Enable Web Compression to False for the Siebel Application Interface. In addition, disable HTTP 1.1 for proxy connections on each client computer. Follow instructions for your browser for this purpose. For example, for Microsoft Internet Explorer, you uncheck the option Use HTTP 1.1 Through Proxy Connections.

**NOTE:** For more information about deploying Siebel Business Applications with firewalls, and about compression settings for Siebel Application Interface, see “Configuring the Siebel Application Interface” on page 95. See also *Siebel Security Guide* and *Siebel System Administration Guide*.

**Bypassing the Proxy Server for Local Addresses**

If your LAN uses a proxy server, then adjust your browser settings to bypass the proxy server for local (internal) addresses. This setting provides better performance for Siebel employee applications deployed on the LAN, and is required for the Siebel Mobile Web Client.

Follow instructions for your browser for this purpose. For example, for Microsoft Internet Explorer, you check the options Use a Proxy Server for Your LAN and Bypass Proxy Server for Local Addresses. For Siebel Web Clients, you also specify the proxy server address and port number.

**NOTE:** For customer applications, this setting does not apply. The proxy server setting applies only on a LAN.

**Configuring Siebel Business Applications for Pop-Up Blocker Compatibility**

Pop-up blocking software can sometimes cause Siebel Business Applications not to work, because such software might block required Siebel application functionality. Such blocking software typically blocks processes or pop-up windows that originate from particular computer host names or domain names. This topic applies to all Siebel Business Applications.

Siebel Business Applications that you run on a LAN (Siebel Web Client) or that run on local client computers (Siebel Mobile Web Client) might be affected by pop-up blockers. Configuring the Siebel application to use a fully qualified domain name (FQDN), as described in this topic, might prevent such problems and allow you to use pop-up blockers safely. See also the descriptions of the EnableFQDN and FQDN parameters in *Siebel System Administration Guide*. It is strongly recommended to use the fully qualified domain name feature.

For example, the URL http://ebiz.example.com uses FQDN, while http://ebiz does not.

**NOTE:** If you have configured FQDN for your Siebel Business Applications, and if conflicts with pop-up blockers persist, then it might be necessary to uninstall the pop-up blocking software or any applications in which such functionality is built in.

Parameters to configure fully qualified domain names are located in multiple places. How you set these parameters depends on the Siebel client that you are using. Specified host names or domain names must meet all of the applicable requirements, for example, underscores cannot be used.
**Siebel Web Client.** To use FQDN for this client type, set Configure Fully Qualified Domain Name to True when you configure the Siebel Application Interface instance, and set Fully Qualified Domain Name to the fully qualified domain name. For more information, see “Configuring the Siebel Application Interface” on page 95.

For example, you might set the fully qualified domain name to corp.example.com or server1.corp.example.com.

**Siebel Mobile Web Client.** To use FQDN for this client type, configure the following parameters in the Siebel application configuration file, such as uagent.cfg for Siebel Call Center, on each local client computer:

```
[Siebel]
EnableFQDN = True
```

EnableFQDN is set to True by default for the Siebel Mobile Web Client.

If you do not also specify the FQDN parameter, then the URL is constructed automatically. For example, the FQDN for CCHENG might be constructed as ccheng.corp.example.com. Optionally, you can explicitly provide similar information, by using the FQDN parameter, as follows:

```
FQDN = hostname.primaryDNS.domainsuffix
```

where:

- **hostname** is the name of the local client computer
- **primaryDNS** is the primary part of the domain name (such as example)
- **domainsuffix** is the domain type (such as com)

For example, you might set FQDN to ccheng.corp.example.com.

**CAUTION:** When you explicitly configure an FQDN for use with the Siebel Mobile Web Client, you must specify the local computer name. The localhost string from the default Siebel Mobile Web Client URL (which is used when EnableFQDN is False) cannot be used as an element in an FQDN. The localhost string is only functional when used by itself, with no additional qualifying elements.

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**Logging in to Your Siebel Application**

This topic provides basic instructions for logging in to your Siebel application using one of the Siebel Web Client types. It contains the following information:

- “Before Logging in to Your Siebel Application” on page 210
- “Logging in Using the Siebel Developer Web Client” on page 210
- “Logging in Using the Siebel Mobile Web Client” on page 211
- “Logging in Using the Siebel Web Client” on page 211
Before Logging in to Your Siebel Application

This topic contains information that you must know before you log in to your Siebel application.

This topic is part of "Logging in to Your Siebel Application" on page 209.

Review the following issues:

- User rights to read and write in Siebel Web Client installation directories are required for running the Siebel Mobile Web Client or Developer Web Client. For information about setting user rights, consult the operating system manuals for the version of Microsoft Windows on which the application is installed.

- After the Siebel database has been installed, as described in Chapter 5, "Installing the Siebel Database on the RDBMS," and the server modules have been configured and you activate the license keys, users can access the Siebel CRM applications. For information about activating the license keys in the Siebel database, see "Activating License Keys" on page 142.

- The user name and password used to log in to Siebel Business Applications must be those of an employee with a valid position and division defined in the Siebel database.

You must log in to Siebel Business Applications (using the Server database option in the login screen) as the Siebel administrator before anyone else can log in. Log in using the SADMIN user name or using other credentials as defined by your database administrator. Then you or other administrators can set up more users as employees with defined positions and responsibilities and other settings suitable for your access control policies. For more information about setting up employees, see Siebel Security Guide.

- For the Siebel Developer Web Client, you must edit the application configuration file, such as uagent.cfg for Siebel Call Center, as follows:
  - In the [Siebel] section of the file, add the parameter ServerDbODBCDataSource, and set it to the ODBC data source that you are using for the server database.
  - In the [ServerDataSrc] section of the file, set the parameter ConnectString to the necessary value. For Oracle Database, set it to the alias defined in the tnsnames.ora file.

- Tabbed browsing is supported with Siebel applications for one active session. Multiple Web pages can be opened using tabbed browsing, but only one tab can have a live connection to a Siebel application at a given time.

Logging in Using the Siebel Developer Web Client

You can use the Siebel Developer Web Client to log in to the Siebel application.

This topic is part of "Logging in to Your Siebel Application" on page 209.

To log in to your Siebel application using the Siebel Developer Web Client

1. Double-click one of the Siebel shortcuts in the program folder, such as Siebel Call Center for the language you are using.

2. Log in using a valid user ID and password.
3 Specify the Server database, and click OK.

**Logging in Using the Siebel Mobile Web Client**

You can use the Siebel Mobile Web Client to log in to the Siebel application.

This topic is part of “Logging in to Your Siebel Application” on page 209.

**To log in to your Siebel application using the Siebel Mobile Web Client**

1 Double-click one of the Siebel shortcuts in the program folder, such as Siebel Call Center for the language you are using.

2 Log in using a valid user ID and password.

3 Specify the Local database, and click OK.

**NOTE:** When logging in to a local database for the first time, users are automatically prompted to connect to the Siebel Server and download the local database. Users must attempt this only after a local database has been extracted for them by the system administrator. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

For more information about Siebel Remote and extracting local databases, see *Siebel Remote and Replication Manager Administration Guide*.

**Logging in Using the Siebel Web Client**

You can use the Siebel Web Client to log in to the Siebel application. (In this context, *Siebel Web Client* refers to the client type that is not installed locally, except for the browser itself.)

This topic is part of “Logging in to Your Siebel Application” on page 209.

**To log in to your Siebel application using the Siebel Web Client**

1 Open your Web browser.

2 Go to the URL for your Siebel application.

3 Log in using a valid user ID and password.

   The Siebel application that you are connecting to is already configured to work with a specific database. When using this client type, you do not specify a database to connect to.
Siebel Web Client Shortcuts and Startup Options

This topic provides information about the shortcuts installed in the Siebel program folder when you install the Siebel Web Client, and about command-line options used in these shortcuts.

This topic also provides information about creating custom shortcuts to access Siebel Business Applications using demo users provided with the sample database. For the demo users provided with the sample database, by Siebel application, see Siebel Demo Users Reference.

This topic contains the following information:

- "Siebel Web Client Shortcuts" on page 212
- "Siebel Web Client Startup Options" on page 213
- "Creating Custom Siebel Application Shortcuts" on page 215

Siebel Web Client Shortcuts

The Siebel Web Client installer creates shortcuts in the Siebel program folder for the modules that you have installed. For Siebel Business Applications, separate shortcuts are installed for each installed language. Which shortcuts are installed depends on your installation choices and is also subject to the settings in the siebel.ini file at the time of installation. Most of the shortcuts are installed in the program group (program folder); some are installed in the startup group.

For information about customizing the shortcuts or creating new ones, see "Siebel Web Client Startup Options" on page 213 and "Creating Custom Siebel Application Shortcuts" on page 215.

Siebel application shortcuts are created by the Siebel Web Client installer. When you run a shortcut to start a Siebel application, you can connect to the Siebel database (for LAN-connected users of the Siebel Developer Web Client), or to an initialized local database on the local computer (for Mobile Web Client). Each application shortcut loads the Siebel configuration file for that application; for example, Siebel Call Center uses the file uagent.cfg.

Where the sample database has been installed on the local computer, you can log in and connect to the sample database, using predefined demonstration users. For example, CCHENG is a demo user for Siebel Call Center. Many other demo users are available in the sample database that illustrate a particular Siebel application as it would appear for a user with certain predefined responsibilities. For more information about these users, see Siebel Demo Users Reference.

This topic is part of "Siebel Web Client Shortcuts and Startup Options" on page 212.
Siebel Application Shortcuts
Several Siebel application shortcuts are created in the Siebel Web Client program folder for Siebel Business Applications. All demo applications use the sample database. You can create shortcuts for any valid Siebel application for which no shortcut is created by the installer.

Related Books
Siebel Demo Users Reference
Siebel Security Guide

Utility and Synchronization Program Shortcuts
The following are some of the additional shortcuts created in the Siebel Web Client program folder for Siebel Business Applications. These shortcuts run utilities or synchronization programs.

- **Siebel Remote**. Starts the Siebel Remote stand-alone synchronization program (siebsync.exe).
- **Siebel TrickleSync**. Starts the Siebel TrickleSync program (autosync.exe). This shortcut is created in both the program group and the startup group.

Related Books
Siebel Remote and Replication Manager Administration Guide

Siebel Web Client Startup Options
The application shortcuts described in “Siebel Web Client Shortcuts” on page 212 run an executable program called siebel.exe, followed by various startup options. For example, the shortcut for Siebel Call Center - ENU might be defined as shown in the following example (depending on your installation location). For this example, the only option used is /c, to specify the configuration file.

```
"C:\Siebel\Client\BIN\siebel.exe" /c CFG_FILE_PATH\uagent.cfg
```

You can also create demo application shortcuts that specify the sample database and user and password information. For this example, you might define a shortcut like Siebel Call Center Demo - ENU as shown in the following:

```
"C:\Siebel\Client\BIN\siebel.exe" /c CFG_FILE_PATH\uagent.cfg /d sample /u CCHENG /p CCHENG
```

In the preceding examples, CFG_FILE_PATH represents the full path to the configuration file. This file is located in BIN\LANGUAGE in the SIEBEL_CLIENT_ROOT directory. In this path, LANGUAGE is a language code, such as ENU for U.S. English.

For example, the target definition for the Siebel Call Center - ENU shortcut might resemble the following example:

```
"C:\Siebel\Client\BIN\siebel.exe" /c "C:\Siebel\Client\bin\ENU\uagent.cfg"
```
The siebel.exe program can also be run from a DOS command window. In this case, the startup options would be entered directly on the command line. For information about creating custom shortcuts, see “Creating Custom Siebel Application Shortcuts” on page 215.

This topic is part of “Siebel Web Client Shortcuts and Startup Options” on page 212.

The available startup options are described in Table 14 on page 214.

Table 14. Siebel Web Client Startup Options

<table>
<thead>
<tr>
<th>Startup Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/c config_file</td>
<td>Required. Specifies the path and file name for the configuration file to use, such as siebel.cfg for Siebel Sales or uagent.cfg for Siebel Call Center.</td>
</tr>
<tr>
<td>/d data_source</td>
<td>Specifies the data source to connect to, as defined in the configuration file. The demo application shortcuts specify /d sample to access the sample database:</td>
</tr>
<tr>
<td></td>
<td>■ If you do not use /u and /p to specify a valid Siebel user and do not use /d to specify a valid data source, then you can specify the data source from the login screen.</td>
</tr>
<tr>
<td></td>
<td>■ If you use /u and /p but do not use /d, then the local database is assumed.</td>
</tr>
<tr>
<td>/l language</td>
<td>Specifies the three-letter code for the language to use for this Siebel Web Client session, such as ENU for U.S. English. The applicable Siebel language pack must have been installed for the Siebel Web Client.</td>
</tr>
<tr>
<td></td>
<td>If you do not use /l to specify a valid language, then the language is obtained from the configuration file.</td>
</tr>
<tr>
<td>/u username</td>
<td>Specifies the user name. The demo application shortcuts specify predefined demo users using /u and /p options.</td>
</tr>
<tr>
<td></td>
<td>If you do not use /u and /p to specify a valid Siebel user, then you must log in from a login screen.</td>
</tr>
<tr>
<td></td>
<td>For lists of demo users provided with the sample database, by Siebel application, see Siebel Demo Users Reference.</td>
</tr>
<tr>
<td></td>
<td><strong>CAUTION:</strong> Consider the security issues when using /u and /p options (in particular /p) to access a live, production system. These values are not encrypted.</td>
</tr>
<tr>
<td>/p password</td>
<td>Specifies the password for the user specified using /u.</td>
</tr>
</tbody>
</table>
Creating Custom Siebel Application Shortcuts

If you want to customize Siebel Business Applications shortcuts described in "Siebel Web Client Shortcuts" on page 212, then you can do so by modifying shortcut properties and changing the value for the Target field. Generally, rather than modifying existing shortcuts or creating them from scratch, it is recommended that you copy existing ones and rename and modify the copies.

Observe the following requirements for creating or modifying shortcuts:

- Do not modify the location displayed in the shortcut property labeled Start in.
- When defining the Target value for a shortcut, follow the guidelines for using the options described in "Siebel Web Client Startup Options" on page 213.

This topic is part of "Siebel Web Client Shortcuts and Startup Options" on page 212.

**To create custom Siebel application shortcuts**

1. Copy existing Siebel application shortcuts.
2. Modify the copies, for example, by changing the value for the Target field.

---

Table 14. Siebel Web Client Startup Options

<table>
<thead>
<tr>
<th>Startup Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>/b browser_exe</code></td>
<td>Specifies the path and file name for the browser executable program to use for the Siebel Web Client session. The <code>/b</code> option is used to override the default browser in Microsoft Windows. For more information about the supported browsers for Siebel Business Applications, see the Certifications tab on My Oracle Support.</td>
</tr>
<tr>
<td><code>/s spool_file</code></td>
<td>Specifies spooling SQL to a specified output file. This option can be useful for troubleshooting purposes. For more information, see Siebel Performance Tuning Guide.</td>
</tr>
</tbody>
</table>
Verifying and Troubleshooting Your Installation

This chapter provides information about verifying and troubleshooting your installation of Siebel Business Applications. It includes the following topics:

- Verifying Installation for Siebel Business Applications on page 217
- Troubleshooting Installation and Configuration for Siebel Business Applications on page 226
- Stopping and Starting the Application Container on page 234
- Verifying the ODBC Data Source on page 235
- Troubleshooting the ODBC Data Source Connection on page 238
- Verifying Installation for the Siebel Database on page 239
- Troubleshooting Installation for the Siebel Database on page 242
- Verifying Installation for Siebel Tools on page 243
- Verifying Installation for the Siebel Web Client on page 247
- Verifying Installation for Oracle Database XE on page 249
- Verifying Network Connectivity for the Siebel Server Computer on page 251
- Verifying Network Connectivity for Mobile Users on page 252
- Configuring the Siebel Mobile Web Client When Neither Siebel VB nor Siebel eScript Is Licensed on page 252

Verifying Installation for Siebel Business Applications

After installing the Siebel Business Applications software as a new installation or as a migration installation, review the installation log files, verify the version number of your installed software, and review the directories and files that now exist under the $SIEBEL_ROOT directory that you specified during the installation.

**NOTE:** Additional top-level directories are created, which are parallel to the directories for the Siebel Gateway, Siebel Server, and so on. Among others, these directories include applicationcontainer for files related to the application container (which, for example, includes the server.xml file), cftoollogs for installation log files, opatch for files related to the opatch utility, and oui for files related to Oracle Universal Installer.

In addition to the steps described in this topic and elsewhere, perform any other tasks that might be necessary for verifying that your Siebel CRM software is functioning correctly. At the minimum, first install and configure all of the key components, including the Siebel Business Applications software and the Siebel database, and perform the basic verification steps for each component.
For full verification that your installed Siebel CRM server environment is working correctly, you must start one of the Siebel CRM applications in a Web browser. Start a suitable browser, specify a valid URL for one of the Siebel applications that your deployment supports, and log in using valid user credentials. Then access various screens and views in the application and make sure that the application functions properly and that the necessary seed data is present. Try this for all of the Siebel applications and languages that your deployment must support. Additional testing considerations are outside the scope of this document.

The available applications include those for which server component groups were enabled on the Siebel Server and for which Siebel Application Interface configuration was done, using Siebel Management Console. For example, the URL for Siebel Call Center might resemble the following:

SiebelApplicationInterfaceHost.FQDN:Port/siebel/app/callcenter/lang

In this URL:

- **SiebelApplicationInterfaceHost** is the host name for the installed Siebel Application Interface.
- **FQDN** is the fully qualified domain name for your deployment. An example is example.com.
  
  **NOTE:** It is strongly recommended to use the fully qualified domain name (FQDN) feature, because security certificates are generally obtained based on fully qualified domain name. You enable the FQDN feature when you create the Siebel Application Interface profile.
- **Port** is the HTTPS redirect port number for the installed Siebel Application Interface. You specified this HTTPS redirect port during Siebel Application Interface installation.
- **Lang** is the deployed language for the application you are running.

This topic contains the following information:

- "Reviewing the Installation Log Files” on page 219
- "Reviewing the Log Files for the Siebel Application Interface” on page 219
- "Verifying That the Application Container Is Running” on page 219
- "Verifying That the Siebel Gateway Has Started” on page 219
- "Verifying the Installation Version Number” on page 220
- "Reviewing the Installation Directories for Siebel Gateway” on page 220
- "Reviewing the Installation Directories for Siebel Server” on page 222
- "Reviewing the Installation Directories for Siebel Database Configuration Utilities” on page 224
- "Reviewing the Installation Directories for the Siebel Application Interface” on page 225

**Related Topic**

Chapter 3, “Installing Siebel Business Applications Server Modules”
Chapter 4, “Configuring Siebel Business Applications Server Modules”
“Troubleshooting Installation and Configuration for Siebel Business Applications” on page 226
“Stopping and Starting the Application Container” on page 234
Verifying and Troubleshooting Your Installation

Verifying Installation for Siebel Business Applications

Reviewing the Installation Log Files
After installing the Siebel Business Applications components, review the installation log files to verify that all of the components installed successfully, particularly if you experienced any difficulties with the installation. The log files are created in the following directory:

\$SIEBEL_ROOT/cfgtoollogs/oui

The relevant log files for an installation session are named installActions\date\time\_log file. In the file name, \date\time represents the date and time when the file was created; for example, installActions2017-07-02_10-28-04PM.log. For each set of files created, the oldest and largest log file generally represents the Siebel module being installed.

See also “Troubleshooting Installation and Configuration for Siebel Business Applications” on page 226.

Reviewing the Log Files for the Siebel Application Interface
Siebel Application Interface generates one or more log files as a result of connection attempts with the Siebel Server. These log files reside in \$SIEBEL\_AI\_ROOT\log.

Depending on the logging level that you choose, these files record errors, warnings, and general information. Events such as invalid configuration of the Siebel Application Interface are captured in these log files. Analyzing the log files can provide clues for troubleshooting Siebel Application Interface problems.

See also “Troubleshooting Installation and Configuration for Siebel Business Applications” on page 226.

Verifying That the Application Container Is Running
After installing one or more components using the Siebel Enterprise Server installer, verify that the application container is running. You can also check relevant log files, such as catalina.log, that are created in the following directory:

\$SIEBEL\_ROOT/applicationcontainer/logs

Also verify information about the application container stored in subdirectories. For example, the server.xml file, located in the conf subdirectory, can be checked to validate the HTTPS port number and other information for the installed application container.

See also “Troubleshooting Installation and Configuration for Siebel Business Applications” on page 226 and "Stopping and Starting the Application Container” on page 234.

Verifying That the Siebel Gateway Has Started
You must make sure that the Siebel Gateway is started when you do any of the following:

- Configure the Security profile
- Create and deploy the Siebel Enterprise profile
- Create and deploy a Siebel Server profile
- Create and deploy a Siebel Application Interface profile
- Operate any of the Siebel applications
Verifying and Troubleshooting Your Installation

Remove the configuration of a Siebel Application Interface, Siebel Server or the Siebel Enterprise (task that you might perform when you are uninstalling the software)

NOTE: It is recommended that you review the Siebel Gateway log files, which are found in the $SIEBEL_GATEWAY_ROOT/log directory.

See also “Troubleshooting Installation and Configuration for Siebel Business Applications” on page 226.

Verifying the Installation Version Number

After installing the Siebel Business Applications components, verify the version number of the installed software.

To verify the installation version number for Siebel Business Applications

1. Open a shell window.
2. Set the value of the ORACLE_HOME environment variable to correspond to your top-level installation location, such as /Siebel. For example, you might enter a command like this:
   ```bash
   set ORACLE_HOME=/Siebel
   ```
3. Navigate to the opatch directory within your installation. For example, you might enter a command like this:
   ```bash
   cd /Siebel/opatch
   ```
4. Enter the following command:
   ```bash
   opatch lsinventory -invPtrLoc inventory_location
   ```
   In this command, `inventory_location` is the full path of the oraInst.loc file (for example, /export/home/oraInst.loc), which points to the OUI inventory location. Use the -invPtrLoc option if you want to specify an inventory pointer file other than the default.

   The installed components within the specified Oracle home are displayed, with the version number as managed by Oracle Universal Installer. For example, the version number shown for your installed software might be 17.0.

Reviewing the Installation Directories for Siebel Gateway

After installing the Siebel Gateway, review the directory structure created by the installer.

The Siebel Gateway is installed in the $SIEBEL_GATEWAY_ROOT directory within the Siebel root directory that you specified during the installation. The installation location is /Siebel/gtwysrvr or a similar location. Verify that the following Siebel Gateway directories and files now exist in the installation directory. In the list, `lang` represents each language that you have installed, such as ENU for U.S. English.

- **gtwysrvr**: Top-level directory for Siebel Gateway.
- **admin**: The template files used for scripts that control the running and configuration of the Siebel Gateway.
Verifying and Troubleshooting Your Installation

Verifying Installation for Siebel Business Applications

**bin.** Siebel Gateway start script, stop script, and executable programs.

**cfgenv.csh.** C shell variant of the Siebel script for setting environment variables on the server.

**cfgenv.sh.** Bourne or Korn shell variant of the Siebel script for setting environment variables on the server.

**classes.** Contains files used in the configuration process.

**dbtempl.** Dictionary and local database files required by Siebel Remote for users.

**EXTCACHE.** Contains files used by the Siebel Enterprise Cache. (This directory is not used in Siebel Innovation Pack 2017, and is included for backward compatibility.)

**input.** Contains files related to Siebel Remote.

**install_script.** Contains files related to installation and configuration.

**lib.** Siebel Gateway program library files.

**locale.** Language-specific files and scripts. These are not configurable.

**log.** Siebel Gateway log files.

**output.** Contains files related to Siebel Remote.

**siebenv.csh.** C shell variant of the Siebel script for setting environment variables on the server after you configure the Siebel Enterprise Server modules.

**siebenv.sh.** Bourne or Korn shell variant of the Siebel script for setting environment variables on the server after you configure the Siebel Enterprise Server modules.

**sqltempl.** An empty directory, initially. When you install the Siebel Server into the same root directory, that installation procedure populates this directory with SQL files, containing SQL templates that can be used to create SQL statements that the Siebel Server uses to perform specific database operations.

**sys.** The backing files and service entry files used by the Siebel Gateway and server control utilities. Do not edit or modify these files, unless you are instructed to do so by Oracle Global Customer Support.

**temp.** Stores temporary files generated by the Siebel Gateway.

**upgrade.** Files and scripts related to version upgrades of Siebel Business Applications. Also holds temporary, backup, and state log files used during an upgrade.

**upgrade.log.** File that contains information logged during an upgrade.

**zookeeper.** Contains files used by Apache ZooKeeper, which maintains the Siebel Gateway registry.
Reviewing the Installation Directories for Siebel Server

After installing the Siebel Server, review the directory structure created by the installer.

The Siebel Server is installed in the $SIEBSRVR_ROOT directory within the Siebel root directory that you specified during the installation. The installation location is /Siebel/siebsrvr or a similar location. Verify that the following Siebel Server directories and files now exist in the installation directory. In the list, lang represents each language that you have installed, such as ENU for U.S. English.

**siebsrvr.** Top-level directory for Siebel Server.

- **admin.** The template files used for scripts that control the running and configuration of Siebel Server.
- **bin.** Binary file directory, containing executable programs, scripts, and language subdirectories related to language-specific server components. Also contains files used by Oracle Global Customer Support for installation workarounds.
- **cfgenv.csh.** C shell variant of the Siebel script for setting environment variables on the server.
- **cfgenv.sh.** Bourne or Korn shell variant of the Siebel script for setting environment variables on the server.
- **classes.** Contains files used in the configuration process.
- **dbenv.csh.** C shell variant of the Siebel script for setting environment variables on the server before you run the Siebel Database Configuration Wizard. You create this file by using the script CreateDbSrvrEnvScript before you first run the wizard. For more information, see "Installing the Siebel Database" on page 136.
- **dbenv.sh.** Bourne or Korn shell variant of the Siebel script for setting environment variables on the server before you run the Siebel Database Configuration Wizard. You create this file by using the script CreateDbSrvrEnvScript before you first run the wizard. For more information, see "Installing the Siebel Database" on page 136.
- **dbtempl.** Contains dictionary and local database files required by Siebel Remote for regional users and Mobile Web Client users.
- **docking.** Contains transaction files, visibility, and other databases required by Siebel Remote.
- **ESCRIPTEMP.**
- **enterprises.** Files specific to a particular enterprise; contains a server subdirectory that contains files specific to a particular server (for example, log files).
- **help.** Contains help files.
- **input.** Contains files related to Siebel Remote.
- **install.** Contains files used by the installer.
- **install_script.** Contains files related to installation and configuration.
- **IVSE.LIC.** Merant ODBC Driver license file.
- **input.** Contains files related to Siebel Remote.
- **ISSTEMPL.**
- **jre.** Contains files for Java Runtime Environment.
- **JSON.** Contains JSON (JavaScript Object Notation) files.
lex. Language-related files.
lib. Library subdirectory. Contains the *.so files used in LDAP or other applications.
locale. Contains language-specific files. These files are not configurable.
log. Contains client and utility log files.
msgtempl. Stores language-specific files for mail merge.
mw. Contains MainWin binaries, libraries, and scripts that function as a Windows interface. For more information, see article 473791.1 (Article ID) on My Oracle Support. This document was previously published as Siebel FAQ 2240. See also Siebel System Administration Guide.
output. Contains files related to Siebel Remote.
plugins.
reports. Contains the report executable programs used by Siebel Proposals to include reports in proposals.
SDQConnector. Contains the DLLs, configuration files, and other files necessary to connect the Siebel Data Quality Universal Connector to one or more external data quality products. An external data quality product is validated though Oracle’s partner initiative.
search. Contains the indexes and scripts used to administer and execute searches.
siebenv.csh. C shell variant of the Siebel script for setting environment variables on the server after you run the Siebel Management Console.
siebenv.sh. Bourne or Korn shell variant of the Siebel script for setting environment variables on the server after you run the Siebel Management Console.
SMARTANSWER. Contains files related to Siebel Smart Answer.
sqltempl. Contains SQL statements used by Siebel Server components. Do not modify these files.
sys. The service entry files and .odbc.ini files used by the Siebel Server and server control utilities. Do not edit or modify these files, unless you are instructed to do so by Oracle Global Customer Support.
tclient. Contains Web server-related files.
temp. Stores temporary files for use by the Siebel Server.
upgrade. Contains files and scripts related to version upgrades of Siebel Business Applications. Also holds temporary, backup, and state log files used during an upgrade.
upgrade.log. File that contains information logged during an upgrade.
xml.
XMLP.
xsd.
XSLT.
Verifying the Installation Directories for Siebel Database Configuration Utilities

After installing the Siebel Database Configuration Utilities, review the directory structure created by the installer.

The Siebel Database Configuration Utilities software is installed in the `DBSRVR_ROOT` directory within the Siebel root directory that you specified during the installation. The installation location is `/Siebel/dbsrvr` or a similar location. Verify that the following Siebel Database Configuration Utilities directories and files now exist in the installation directory. In the list, `lang` represents each language that you have installed, such as `ENU` for U.S. English.

**dbsrvr.** Top-level directory for Siebel Database Configuration Utilities.
- **bin.** Contains files for internal use.
- **common.** Contains database platform-independent files.
- **db_server (oracle, db2udb, or db2390).** Contains scripts specific to your database, including upgrade scripts for previous versions of Siebel Business Applications.
- **dboutput (IBM DB2 for z/OS only).** Contains subdirectories in which DDL is deposited by the installer for later transfer to the DB2 host when the Siebel Schema installation option Generate DDL Into Files is chosen.
- **siebproc (IBM DB2 only).** Contains User Defined Functions (UDFs) and stored procedures for IBM DB2, by operating system. See also “Installing the Stored Procedures and User-Defined Functions on IBM DB2” on page 133.
  - **aix.** UDFs and stored procedures for IBM DB2 on AIX.
  - **hpux.** UDFs and stored procedures for IBM DB2 on HP-UX.
  - **linux.** UDFs and stored procedures for IBM DB2 on Linux.
  - **solaris.** UDFs and stored procedures for IBM DB2 on Oracle Solaris.
  - **win32.** UDFs and stored procedures for IBM DB2 on Windows.
- **sqlproc (IBM DB2 only).** Contains subdirectories that contain the SAR (stored procedure archive) files for each of the supported operating systems that are installed on the server.
  - **aix.** Stored procedures for IBM DB2 on AIX.
  - **hpux.** Stored procedures for IBM DB2 on HP-UX.
  - **linux.** Stored procedures for IBM DB2 on Linux.
  - **solaris.** Stored procedures for IBM DB2 on Oracle Solaris.
  - **win32.** Stored procedures for IBM DB2 on Windows.
- **storproc (IBM DB2 for z/OS only).** Contains stored procedures for DB2 for z/OS.
- **upgrade.** Directories containing files to enable upgrading from specific versions of Siebel Business Applications that are supported for upgrade to the current release.
- **lang.** Contains language-specific and database-specific files for the ancestor Siebel Repository and supporting files. For example, `ENU` contains language-specific files for U.S. English, and `DEU` contains language-specific files for German.
- **files.** This directory contains sample file attachments. You must copy these files to the appropriate subdirectory of the Siebel File System. See “Populating the Siebel File System” on page 144.
locale. Contains translation files (for Oracle use only).

**Reviewing the Installation Directories for the Siebel Application Interface**

Review the physical directories created during the installation of the Siebel Application Interface to familiarize yourself with the locations of files relevant to its operation.

The following list shows some of the physical directories and files created after you install the Siebel Application Interface.

**Siebel_AI.** Top-level directory for Siebel Application Interface (example).

**applicationcontainer.** Contains the file setenv.sh and other files and directories related to the application container for the installed Siebel software. Several of these files are updated by the installer at the end of the installation process and can be examined to help make sure that installation was successful.

**conf.** Contains the file server.xml, which can be examined for information such as the HTTPS port number of the installed application container.

**webapps.** Contains files for the Web applications supported by the application container, including properties files. The subdirectory webapps/siebel contains the default HTML file (default.htm) and also subdirectories such as files, fonts, htmltemplates, images, scripts, and WEB-INF. The files directory contains CSS files. WEB-INF contains the file web.xml.

**applicationinterface**

**cfgtoollogs.** Contains installation log files.

**config.** Contains files related to configuration.

**diagnostics**

**inventory**

**jre.** Contains files for Java Runtime Environment.

**manifest**

**OPatch.** Contains files related to the opatch utility.

**oui.** Contains files related to Oracle Universal Installer.

**cfgenv.csh.** C shell variant of the Siebel script for setting environment variables on the server.

**cfgenv.sh.** Bourne or Korn shell variant of the Siebel script for setting environment variables on the server.

**install_script.** Contains files related to installation and configuration.
Troubleshooting Installation and Configuration for Siebel Business Applications

This topic presents troubleshooting information related to installation and configuration of Siebel Enterprise Server components and Siebel Application Interface. Some of the information also applies to additional components that use the same installer and are also configured using Siebel Management Console.

This topic includes the following information:

- "Troubleshooting Installation and Configuration for the Siebel Gateway" on page 226
- "Troubleshooting Installation and Configuration for the Siebel Server" on page 229
- "Troubleshooting Installation and Configuration for Siebel Application Interface" on page 231

Related Topics

- "Configuring the Siebel Gateway for Automatic Start" on page 151
- "Configuring the Siebel Server for Automatic Start" on page 154
- "Verifying Installation for Siebel Business Applications" on page 217
- "Stopping and Starting the Application Container" on page 234

Troubleshooting Installation and Configuration for the Siebel Gateway

This topic describes potential errors that can result from a faulty installation or configuration of Siebel Gateway. Such problems can have any of several causes, some of the most common of which are listed in Table 15 on page 227.

**NOTE:** If you cannot start the Siebel Gateway, then you will not be able to configure a Siebel Enterprise or configure and start a Siebel Server.
Table 15. Troubleshooting Siebel Gateway Installation and Configuration

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>(AIX, HP-UX, and Oracle Solaris only)</td>
<td>The Siebel Application Interface might not have been available when it was required for the configuration process.</td>
<td>Try the following:</td>
</tr>
<tr>
<td>In a migration installation of Siebel Gateway, the postinstallation profile creation step fails.</td>
<td></td>
<td>1 Clear the CGHostURI entry in the applicationinterface.properties file for Siebel Application Interface, in <code>SIEBEL_ROOT\applicationcontainer\webapps</code>.</td>
</tr>
<tr>
<td>The clouddgateway.log file contains an exception error.</td>
<td></td>
<td>2 Restart the application container for Siebel Application Interface, as described in &quot;Stopping and Starting the Application Container&quot; on page 234.</td>
</tr>
<tr>
<td>In some cases, an error might have occurred in updating the CGHostURI entry in the clouddgateway.properties file.</td>
<td></td>
<td>3 Restart Siebel Gateway migration installation.</td>
</tr>
<tr>
<td>See also &quot;Troubleshooting Installation and Configuration for the Siebel Server&quot; on page 229.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Siebel Gateway does not start. You might not have privileges as the Siebel service owner.

Review the instructions in “Creating the Siebel Service Owner Account” on page 302.

The Siebel Gateway does not start. Failure to start the Siebel Gateway can be caused by a number of problems including, but not limited to:

- Incorrectly set LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris) environment variable
- Incorrect permissions set on shared libraries
- Missing shared libraries

Use the `ldd` command to show missing libraries.

Make sure that `$SIEBEL_HOME/lib` is included and set before LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris). If there are library conflicts, then set `$SIEBEL_HOME/lib` as the first element of the shared library path environment variable.

Check the LIBPATH, SHLIB_PATH, or LD_LIBRARY_PATH settings in all applicable files, including `cfgenv.csh` (for C shell) or `cfgenv.sh` (for Bourne or Korn shell), and `siebenv.csh` or `siebenv.sh`.

Make sure that all files were correctly generated.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Siebel Gateway does not start.</td>
<td>You might not have privileges as the Siebel service owner.</td>
<td>Review the instructions in “Creating the Siebel Service Owner Account” on page 302.</td>
</tr>
<tr>
<td>The Siebel Gateway does not start.</td>
<td>Failure to start the Siebel Gateway can be caused by a number of problems including, but not limited to:</td>
<td>Use the <code>ldd</code> command to show missing libraries. Make sure that <code>$SIEBEL_HOME/lib</code> is included and set before LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris). If there are library conflicts, then set <code>$SIEBEL_HOME/lib</code> as the first element of the shared library path environment variable. Check the LIBPATH, SHLIB_PATH, or LD_LIBRARY_PATH settings in all applicable files, including <code>cfgenv.csh</code> (for C shell) or <code>cfgenv.sh</code> (for Bourne or Korn shell), and <code>siebenv.csh</code> or <code>siebenv.sh</code>. Make sure that all files were correctly generated.</td>
</tr>
</tbody>
</table>

Table 15. Troubleshooting Siebel Gateway Installation and Configuration
Troubleshooting Installation and Configuration for the Siebel Server

This topic describes potential errors that can result from a faulty installation or configuration of Siebel Server. Such problems can have any of several causes, some of the most common of which are listed in Table 16.

### Table 16. Troubleshooting Siebel Server Installation and Configuration

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Siebel Server cannot be installed.</td>
<td>Insufficient user privileges</td>
<td>For information about setting up appropriate administrative user privileges to install, see “Setting Permissions and Ownership” on page 294 and “Creating the Siebel Service Owner Account” on page 302.</td>
</tr>
<tr>
<td>Trying to install or configure the Siebel Server out of sequence</td>
<td>For the required installation and configuration sequence, see Chapter 2, &quot;Overview of Installing Siebel Business Applications.”</td>
<td></td>
</tr>
<tr>
<td>Failure to install required hardware or software</td>
<td>Installation errors related to software requirements are logged in the Siebel Enterprise Server installer log file. For requirements, see the Certifications tab on My Oracle Support.</td>
<td></td>
</tr>
<tr>
<td>Environment variables not set properly</td>
<td>For more information about environment variables, see “Managing Environment Variables” on page 157.</td>
<td></td>
</tr>
<tr>
<td>Faulty network connection</td>
<td>Sometimes a faulty network connection can result in the system administrator being unable to install to the $SIEBEL_HOME directory in which he or she has write privileges. Verify that your network connection is stable.</td>
<td></td>
</tr>
</tbody>
</table>
Table 16. Troubleshooting Siebel Server Installation and Configuration

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Siebel Server does not start.</td>
<td>Failure to start the Siebel Server can be caused by a number of problems including, but not limited to:</td>
<td>Use the <code>ldd</code> command to show missing libraries.</td>
</tr>
<tr>
<td></td>
<td>■ Incorrectly set <code>LIBPATH</code> (AIX), <code>SHLIB_PATH</code> (HP-UX), or <code>LD_LIBRARY_PATH</code> (Linux or Oracle Solaris)</td>
<td>Make sure that <code>$SIEBEL_HOME/lib</code> is included and set before <code>LIBPATH</code> (AIX), <code>SHLIB_PATH</code> (HP-UX), or <code>LD_LIBRARY_PATH</code> (Linux or Oracle Solaris). If there are library conflicts, then set <code>$SIEBEL_HOME/lib</code> as the first element of the shared library path environment variable.</td>
</tr>
<tr>
<td></td>
<td>■ Incorrect permissions set on shared libraries</td>
<td>Check the <code>LIBPATH</code>, <code>SHLIB_PATH</code>, or <code>LD_LIBRARY_PATH</code> settings in all applicable files, including <code>cfgenv.csh</code> (for C shell) or <code>cfgenv.sh</code> (for Bourne or Korn shell), <code>siebenv.csh</code> or <code>siebenv.sh</code>, and <code>dbenv.csh</code> or <code>dbenv.sh</code>. Make sure that all files were correctly generated.</td>
</tr>
<tr>
<td></td>
<td>■ Missing shared libraries</td>
<td></td>
</tr>
<tr>
<td>Application Object Manager component does not start.</td>
<td>Heavily used servers running more than 50 instances of Object Manager components can experience a condition where some of the Object Managers do not start correctly and log the following error message:</td>
<td>Change TCP stack parameters. For more information about sizing Application Object Manager components, see <em>Siebel Deployment Planning Guide</em>, <em>Siebel Performance Tuning Guide</em>, and other relevant documents on Oracle Technology Network or My Oracle Support.</td>
</tr>
<tr>
<td></td>
<td><code>Got error 1801210 when dequeuing a connection request (62)</code></td>
<td></td>
</tr>
<tr>
<td>The Siebel Server does not start after configuration.</td>
<td>Siebel Gateway not started</td>
<td>Verify that the Siebel Gateway was started. Start it if it was stopped.</td>
</tr>
<tr>
<td></td>
<td>Invalid input values for Siebel Server profile creation and deployment</td>
<td>Verify that the input values were valid.</td>
</tr>
<tr>
<td></td>
<td>Insufficient system privileges</td>
<td>Verify that you have sufficient system privileges to start the service. For more information, see &quot;Creating the Siebel Service Owner Account&quot; on page 302.</td>
</tr>
</tbody>
</table>
Troubleshooting Installation and Configuration for Siebel Application Interface

This topic provides suggestions for troubleshooting problems that you might encounter when installing and configuring the Siebel Application Interface.

### Table 16. Troubleshooting Siebel Server Installation and Configuration

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot save a new profile in Siebel Management Console.</td>
<td>The specified profile name might already exist.</td>
<td>Provide a unique name for the new profile and retry saving the profile.</td>
</tr>
<tr>
<td>URL does not bring up Siebel Management Console.</td>
<td>Installations might not have been correctly performed.</td>
<td>Verify that the installations were correctly performed, that valid security certificates were used, and so on. See also “Troubleshooting Installation and Configuration for Siebel Application Interface” on page 231. For security issues, see also Siebel Security Guide.</td>
</tr>
<tr>
<td>URL does not bring up login page for a Siebel application.</td>
<td>Configuration of Siebel Server or Siebel Application Interface might not have been correctly performed, or completed. The Application Object Manager might not have been enabled on the Siebel Server. You might have specified an incorrect port number in the URL. You might have added components on a new Siebel Server, but neglected to update the Siebel Application Interface profile. Siebel system services might not be running. You might be experiencing problems with the security authentication system you are using. Other causes might apply.</td>
<td>Verify that the installations and configurations were correctly performed, that security authentication was correctly configured, services are running, and so on. See also “Troubleshooting Installation and Configuration for Siebel Application Interface” on page 231. For security issues, see also Siebel Security Guide.</td>
</tr>
</tbody>
</table>
Typical problems are shown in Table 17 on page 232.

Table 17. Troubleshooting Siebel Application Interface Installation and Configuration

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel Application Interface profile deployment fails despite no obviously incorrect profile values.</td>
<td>The application container might not have been available to support the configuration process.</td>
<td>Try the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Clear the CGHostURI entry in the applicationinterface.properties file, in $SIEBEL_ROOT\applicationcontainer\webapps.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 Restart the application container, as described in &quot;Stopping and Starting the Application Container&quot; on page 234.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Deploy Siebel Application Interface again.</td>
</tr>
<tr>
<td>The Siebel Application Interface does not start.</td>
<td>Failure to start the Siebel Application Interface can be caused by a number of problems including, but not limited to:</td>
<td>Use the ldd command to show missing libraries.</td>
</tr>
<tr>
<td></td>
<td>■ Incorrectly set LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris) environment variable</td>
<td>Make sure that $SIEBEL_HOME/lib is included and set before LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris). If there are library conflicts, then set $SIEBEL_HOME/lib as the first element of the shared library path environment variable.</td>
</tr>
<tr>
<td></td>
<td>■ Incorrect permissions set on shared libraries</td>
<td>Check the LIBPATH, SHLIB_PATH, or LD_LIBRARY_PATH settings in all applicable files, including cfgenv.csh (for C shell) or cfgenv.sh (for Bourne or Korn shell).</td>
</tr>
<tr>
<td></td>
<td>■ Missing shared libraries</td>
<td></td>
</tr>
</tbody>
</table>
Table 17. Troubleshooting Siebel Application Interface Installation and Configuration

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>After installation, when the Siebel Web Client is started, a message appears, stating: Page Cannot be displayed</td>
<td>The application container is not running.</td>
<td>Make sure that the application container is running. Refresh the connection between your browser and the Siebel Application Interface.</td>
</tr>
<tr>
<td></td>
<td>The Siebel Application Interface port is incorrectly specified.</td>
<td>Verify that the Siebel Application Interface port information is correct.</td>
</tr>
</tbody>
</table>
|                                                             | Applications were not configured properly.                                                | Make sure that the Local Path for the configured applications is correct and resembles the following:  
|                                                             | SIEBEL AI_ROOT\applicationcontainer\webapps\siebel                                    |                                                                                             |
|                                                             | Anonymous users have incorrect responsibilities.                                          | Make sure that the specified anonymous users are also defined in the Siebel database with the correct responsibilities. Otherwise, end users cannot access the home page. |
|                                                             | The connect string for the Siebel application is incorrect.                               | Make sure that the connect string for the Siebel application is correct. The value resembles the following example:  
|                                                             | ConnectString = siebel.TCPIP.none.none://SiebelServerHost:2321/EnterpriseServerName/ProductNameObjMgr_language |                                                                                             |
|                                                             | Siebel Server components or component groups might not be enabled.                        | Make sure that the necessary Siebel Server components and component groups are enabled.      |
Verifying and Troubleshooting Your Installation

Stopping and Starting the Application Container

If it is deemed necessary, you can stop (shut down) and restart the application container using the commands in this topic. The application container for Siebel Application Interface, Siebel Gateway, and Siebel Server (for Configuration Agent), and any other application containers hosting new functionality, are automatically started only once, after installation. Subsequently, whenever an application container needs to be restarted, you must do this manually. Restarting the Siebel Gateway or Siebel Server system services does not restart the associated application containers and does not necessarily require that these application containers be started manually.

**CAUTION:** If you think you might need to shut down and then restart an application container, you must first check that the application container has shut down completely, for example, by using the Task Manager in Windows, before you attempt to start it again. Otherwise, a port conflict failure might impede proper startup of the application container. Sometimes, examining logs might be the only way to indicate the nature of the problem.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Siebel application stops responding, displays a blank page or page not found, or times out.</td>
<td>Appropriate settings are not available within the application configuration defined in the profile for the Siebel Application Interface.</td>
<td>Make sure that the configuration contains valid anonymous user and port number values. Also make sure that appropriate values were specified for session time-out and guest session timeout. For information about configuring these and other settings, see “Creating a Siebel Application Interface Profile” on page 96.</td>
</tr>
<tr>
<td>Inability to access the Siebel Web Client. The browser status bar might display errors such as: SWESubmitOnEnter is undefined.</td>
<td>The user account running the Siebel Application Interface does not have proper permissions to the SIEBEL_AI_ROOT/applicationcontainer/webapps/siebel directory.</td>
<td>Stop the Siebel Application Interface. Make sure that the permissions meet the requirements described in “Requirements for Installing and Configuring the Siebel Application Interface” on page 314. Restart the Siebel Application Interface.</td>
</tr>
<tr>
<td></td>
<td>Also, the login page might stop responding. Or, the Siebel Web Client login page does not display properly; for example, images might be missing.</td>
<td></td>
</tr>
</tbody>
</table>
Note also that recommendations about installing components together with the Siebel Enterprise installer are largely based on the fact that components installed together share the application container. Install them separately in order to eliminate such dependencies in order to maintain availability for your Siebel components.

To shut down the application container, run one of the following commands:

- **Windows.** Execute `SIEBEL_ROOT\applicationcontainer\bin\shutdown.bat`
- **UNIX.** Execute `SIEBEL_ROOT/applicationcontainer/bin/shutdown.sh`

To start the application container, run one of the following commands:

- **Windows.** Execute `SIEBEL_ROOT\applicationcontainer\bin\startup.bat`
- **UNIX.** Execute `SIEBEL_ROOT/applicationcontainer/bin/startup.sh`

**Related Topics**

"Verifying Installation for Siebel Business Applications" on page 217
"Troubleshooting Installation and Configuration for Siebel Business Applications" on page 226

**Verifying the ODBC Data Source**

This topic provides information about verifying the ODBC data source for your enterprise database platform. It includes the following information:

- "Verifying the ODBC Data Source for Oracle Database" on page 235
- "Verifying the ODBC Data Source for IBM DB2" on page 236

**Related Topics**

Troubleshooting the ODBC Data Source Connection on page 238
"Planning RDBMS Installation and Configuration" on page 286

**Verifying the ODBC Data Source for Oracle Database**

Configuring the Siebel Enterprise automatically creates an ODBC system data source name (DSN) that the Siebel Server uses to connect to the Siebel database on the RDBMS.

Make sure that a supported version of the Oracle Database Client has been installed and that the Siebel Server service is started prior to verifying the ODBC data source. This topic applies also to virtual ODBC data sources in a clustered environment.

**CAUTION:** In general, do not change the default settings that are created automatically with the ODBC data source. However, if you have upgraded from an Oracle Database that does not use CBO, or if you manually created your ODBC, then you must check your ODBC settings, as shown in the following procedure.
To verify the ODBC data source for Oracle Database (on UNIX)

1. Navigate to the file `$SIEBEL_HOME/sys/.odbc.ini`, and open this file for editing.

2. Locate the section of the file containing a reference to ServerName and Driver.
   This section defines the ODBC data source for Siebel Server. A sample section is represented in the following example:

   ```
   [EnterpriseName_DSN]
   ServerName=oraDB4
   Driver=$SIEBEL_HOME/lib/SEor827.so
   ColumnsAsChar=1
   ColumnSizeAsCharacter=1
   ```

   CAUTION: The ColumnsAsChar and ColumnSizeAsCharacter parameter settings are required in order for the ODBC driver to behave correctly.

   ServerName is the Oracle connect string that you entered while configuring the Siebel Enterprise. (To verify this connect string, run sqlplus.) The driver must point to `$SIEBEL_HOME/lib/SEor827.so`, allowing you to verify the existence of this file.

3. Verify that the SIEBEL_UNIXUNICODE_DB environment variable is set to ORACLE.

   NOTE: If you use Siebel Marketing, which requires simultaneous heterogeneous database connectivity, then set this variable to ORACLE, regardless of your database platform.

4. Source the siebenv.csh (for C shell) or siebenv.sh (for Bourne or Korn shell) file.

5. Test the connection by navigating to `$SIEBEL_HOME/bin` and entering the command:

   ```
   odbcsql /u database_account_name /p password /s ODBC_DSN
   ```

   where:

   - `database_account_name` is a valid database account name.
   - `password` is the corresponding database account password.
   - `ODBC_DSN` is the ODBC data source name, in the form `SiebelEnterpriseName_DSN`. In the data source name, `SiebelEnterpriseName` is the name of your Siebel Enterprise.

   If you do not receive an error message, then the ODBC connection is working. If your ODBC DSN is not working, then the program exits with an error message. For more information, see “Verifying Network Connectivity for the Siebel Server Computer” on page 251 and “Troubleshooting the ODBC Data Source Connection” on page 238.

Verifying the ODBC Data Source for IBM DB2

Configuring the Siebel Enterprise automatically creates an ODBC system data source name (DSN) that the Siebel Server uses to connect to the Siebel database on the RDBMS.

Make sure that the appropriate database client has been installed and that the Siebel Server service is started prior to verifying the ODBC data source. This topic applies also to virtual ODBC data sources in a clustered environment.

CAUTION: Do not change the default settings that are created automatically with the ODBC data source.
Verifying and Troubleshooting Your Installation

Verifying the ODBC Data Source

NOTE: For information about verifying the ODBC data source for IBM DB2 for z/OS, see Implementing Siebel Business Applications on DB2 for z/OS.

To verify the ODBC data source for IBM DB2 (on UNIX)

1. Open a DB2 Command Window.
2. Run the following command:
   
   `db2 get cli cfg for section SiebelEnterpriseName_DSN`

   In the data source name, SiebelEnterpriseName is the name given the Siebel Enterprise during initial configuration, for example sieb17.

   Entering this command generates the following results:

   `Section: SiebelEnterpriseName_DSN
   - dbalias=SBL
   - clipkg=6
   - txnisolation=1`

   The value for `dbalias` is the database alias catalogued for your DB2 database server.

   If the `SiebelEnterpriseName_DSN` section is missing, then run the `configdb2` script in `$SIEBEL_HOME/bin` to set it, and then verify again that the section is present.

   See also “Guidelines for Preventing IBM DB2 from Running Out of ODBC Statement Handles” on page 349.

3. Verify that the SIEBEL_UNIXUNICODE_DB environment variable is set to DB2.

   NOTE: If you use Siebel Marketing, which requires simultaneous heterogeneous database connectivity, then set this variable to ORACLE, regardless of your database platform.

4. Source the siebenv.csh (for C shell) or siebenv.sh (for Bourne or Korn shell) file.

5. Test the connection by navigating to `$SIEBEL_HOME/bin` and entering the command:

   `odbcsql /u database_account_name /p password /s ODBC_DSN`

   where:

   - `database_account_name` is a valid database account name.
   - `password` is the corresponding database account password.
   - `ODBC_DSN` is the ODBC data source name, in the form `EnterpriseName_DSN`. In the data source name, `EnterpriseName` is the name of your Siebel Enterprise.

   If you do not receive an error message, then the ODBC connection is working.

   If your ODBC DSN is not working, then the program exits with an error message. For more information, see “Verifying Network Connectivity for the Siebel Server Computer” on page 251 and “Troubleshooting the ODBC Data Source Connection” on page 238.
Troubleshooting the ODBC Data Source Connection

This topic describes troubleshooting steps for your ODBC data source connection.

**NOTE:** If your database is IBM DB2 for z/OS, then see *Implementing Siebel Business Applications on DB2 for z/OS*.

This topic has the following information:

- "Troubleshooting Connection Problems on Oracle Database" on page 238
- "Troubleshooting Connection Problems on IBM DB2" on page 239

Troubleshooting Connection Problems on Oracle Database

Complete the following instructions to troubleshoot Oracle Database connection problems on AIX, HP-UX, Linux, or Oracle Solaris. See also "Configuring Siebel Server Connectivity to the Siebel Database" on page 351.

If you are unable to verify if your ODBC connection to your Oracle Database is working, then verify that the value of the environment variable TNS_ADMIN is the exact path of tnsnames.ora.

*To troubleshoot a failed ODBC connection for Oracle Database on AIX, HP-UX, Linux, or Oracle Solaris*

1. Verify that the Oracle connect string entered as part of Siebel Enterprise configuration is valid.

2. If the connect string entered is correct, then check the ODBCINI environment variable to verify that it was set by entering the following command:

   ```bash
   echo ${ODBCINI}
   ```

   The following response appears:

   ```
   $SIEBEL_ROOT/sys/.odbc.ini
   ```

3. If the ODBCINI environment variable was correctly set, then verify that the .odbc.ini file is valid by reviewing it for the presence of the following parameters:

   ```
   [EnterpriseName_DSN]
   ServerName=oraDB4
   Driver=$SIEBEL_ROOT/lib/SEor827.so
   ColumnsAsChar=1
   ColumnSizeAsCharacter=1
   ```

   **CAUTION:** The ColumnsAsChar and ColumnSizeAsCharacter parameter settings are required in order for the ODBC driver to behave correctly.
4 If the .odbc.ini file is valid, then verify that the library path includes the path for the ODBC driver on your operating system by entering the following command:

AIX. Use echo ${LIBPATH}.

HP-UX. Use echo ${SHLIB_PATH}.

Linux and Oracle Solaris. Use echo ${LD_LIBRARY_PATH}.

The following response appears:

$SIEBEL_HOME/lib

NOTE: Siebel Business Applications support the Oracle 32-bit client. Therefore, if you have installed the Oracle 64-bit client on your Siebel Server, then you must include $ORACLE_HOME/lib32 in your definition for the LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris) environment variable. (If you require $ORACLE_HOME/lib for non-Siebel applications, then make sure that $ORACLE_HOME/lib32 is placed in front of $ORACLE_HOME/lib.)

5 If the response illustrated for your operating system in Step 4 on page 239 was correct and you are verifying a Unicode installation, then make sure that the following environment variable is set according to the recommendations from your database platform vendor.

SIEBEL_UNIXUNICODE_DB=ORACLE

This variable is also set in the siebenv.csh (for C shell) and siebenv.sh (for Bourne or Korn shell) scripts.

Troubleshooting Connection Problems on IBM DB2
Complete the following instructions to troubleshoot IBM DB2 connection problems. See also “Configuring Siebel Server Connectivity to the Siebel Database” on page 351.

To troubleshoot a failed ODBC connection for IBM DB2
- Verify that the data source name (SiebelEnterpriseName_DSN) that you entered during the Siebel Server configuration was valid. Also verify that the required IBM DB2 client version is available on the computer and verify that the IBM DB2 catalog step has been completed correctly.

Verifying Installation for the Siebel Database
After installing the Siebel database on the RDBMS using the Siebel Database Configuration Wizard, review the installation log files and the system preferences for the database code page. This topic has the following information:

- “Reviewing the Installation Log Files for the Siebel Database” on page 240
- “Verifying System Preferences and Settings for the Database Code Page” on page 241
Related Topics
"Installing the Siebel Database” on page 136
"Verifying Installation for Siebel Business Applications” on page 217
"Troubleshooting Installation for the Siebel Database” on page 242

Reviewing the Installation Log Files for the Siebel Database
Installing Siebel database components on the RDBMS creates several log files within the $SIEBEL_ROOT/log subdirectory. You must review the files in this subdirectory for any errors.

For example, log files created might be named srvrupgwiz1.log (the most recently created), srvrupgwiz1_01.log, srvrupgwiz1_02.log, and so.

NOTE: For information about reviewing log files using the logparse utility, see Siebel Database Upgrade Guide. This utility is located in $SIEBSRVR_ROOT/bin.

Some other files generated, by supported RDBMS, are listed as follows.

Oracle Database. For Oracle Database, the following log files are also generated when you create tables, indexes, and seed data:

```
ddl_ctl.log
dataimp_prim.log
dataimp_prim_lang.log
ddlseq.log
ddlora.log
ddlview.log
ddlview_sia.log
seedssa.log
seedver.log
pkgseq.log
pkgldel.log
seedora.log
pkgvis.log
trgreset.log
ifstrg.log
ifindxstrg.log
set_utc_on.log
month_fn.log
```

IBM DB2. For IBM DB2, the following log files are also generated when you create tables, indexes, and seed data:

```
ddl_ctl.log
dataimp_prim.log
dataimp_prim_lang.log
db2ddl.log
siebproc.log
seeddb2.log
seedver.log
seedssa.log
ddlview.log
ddlview_sia.log
```
Verifying System Preferences and Settings for the Database Code Page

After you complete installing Database Configuration Utilities and installing the Siebel database, you must verify system preferences and other settings for the Siebel application that indicate whether you are using Unicode, and indicate the code page that you are using.

For more information about code pages, see "Planning RDBMS Installation and Configuration" on page 286. For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.

The following procedure assumes that you have already installed Siebel Tools.

- For information about installing Siebel Tools, see “Installing Siebel Tools” on page 189.
- For information about starting Siebel Tools, see “Verifying Successful Installation of Siebel Tools” on page 246.

To verify system preferences and settings for the database code page

1. Start Siebel Tools and connect to the Siebel database.
2. Navigate to Screens, System Administration, and then System Preferences.
3. Look for System Preference Name = Enterprise DB Server Code Page. Verify that the value has been set correctly, based on the value that you selected during the installation of the Siebel database components (see "Installing the Siebel Database" on page 136).

**NOTE:** The value of Enterprise DB Server Code Page must be in lowercase, for example, utf-8 or utf-16. An Oracle Database character set might have a different value, although the system preference value must be utf-8. The utf-16 code page is also known as UCS-2, although the system preference value must be utf-16.

Possible values for the system preference are listed in the following table:

<table>
<thead>
<tr>
<th>Language</th>
<th>Database</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Oracle Database</td>
<td>utf-8 (for Unicode)</td>
</tr>
<tr>
<td>All</td>
<td>IBM DB2</td>
<td>utf-16 (for Unicode)</td>
</tr>
<tr>
<td>Japanese</td>
<td>Oracle Database, IBM DB2</td>
<td>cp932 (or equivalent)</td>
</tr>
<tr>
<td>Western European</td>
<td>All</td>
<td>cp1252 (or equivalent)</td>
</tr>
</tbody>
</table>
4 Verify that the column UNICD_DATATYPES_FLG in the table S_APP_VER is set correctly. The flag value must be in uppercase.

Possible values for UNICD_DATATYPES_FLG are listed in the following table:

<table>
<thead>
<tr>
<th>Code Page</th>
<th>Database</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Unicode code page</td>
<td>All</td>
<td>N</td>
</tr>
<tr>
<td>Unicode</td>
<td>Oracle Database</td>
<td>8</td>
</tr>
<tr>
<td>Unicode</td>
<td>IBM DB2</td>
<td>Y</td>
</tr>
</tbody>
</table>

**Troubleshooting Installation for the Siebel Database**

These topics provide suggestions for troubleshooting problems that you might encounter when installing and configuring the Siebel database. This topic contains the following information:

- "Troubleshooting Installation for the Siebel Database" on page 242
- "Acceptable Errors for Installation of the Siebel Database" on page 242
- "Troubleshooting Siebel Repository Import for the Siebel Database" on page 243

**Related Topics**

"Installing the Siebel Database" on page 136
"Verifying Installation for Siebel Business Applications" on page 217
"Verifying Installation for the Siebel Database" on page 239

**Troubleshooting Installation for the Siebel Database**

Typically, problems during database installation result from insufficient storage space having been allocated, or from the installer having improper user privileges.

**Acceptable Errors for Installation of the Siebel Database**

The log files might include errors that are expected and benign. Compare any error messages found in the log files to the sample error messages in the errors.txt file, which is located in the installation subdirectory for your database, for example, oracle. If a log file is not listed in the errors.txt file, then there are no acceptable error messages for that log file. No further action is required if the log files contain errors listed in the errors.txt file.

**NOTE:** Only one of each type of error occurring in a particular log file appears in the errors.txt file.

If you find errors that are not listed in the errors.txt file, then correct the condition that caused the errors, and rerun the Upgrade Wizard. The wizard restarts from the point where it left off.
Do not review only the error numbers because these might have changed following installation of a new driver version. Instead, compare the error descriptions to find out which are acceptable errors for this database.

**CAUTION:** Although other errors are rarely encountered, this review is critical. Certain errors, such as a failure to create indexes, might result in performance problems or anomalous behavior in Siebel Business Applications.

You can view a log summary generated using the logparse utility. For more information, see *Siebel Database Upgrade Guide*.

### Troubleshooting Siebel Repository Import for the Siebel Database

Typical problems that can occur at this stage are shown in Table 18. These errors might appear in the log files produced by the Siebel Repository import process.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot import a Siebel Repository</td>
<td>Importing a Siebel Repository with the same name as an existing Siebel Repository</td>
<td>Choose a unique name for the new Siebel Repository.</td>
</tr>
<tr>
<td>Database runs out of tablespace pages and cannot allocate new data pages</td>
<td>Insufficient tablespace size</td>
<td>Increase the tablespace sizes.</td>
</tr>
<tr>
<td>(IBM DB2 only) Errors regarding the settings for DB2 configuration parameters, such as APP_CTL_HEAP_SZ</td>
<td>Values too low</td>
<td>Reset the DB2 configuration parameters to higher values. Guidelines for Siebel Business Applications suggest using only minimum values.</td>
</tr>
</tbody>
</table>

### Verifying Installation for Siebel Tools

After installing Siebel Tools, as a new installation or as a migration installation, review the installation log files, verify the version number of your installed software, and review the Siebel Tools directories and files that now exist under the `SIEBEL_TOOLS_ROOT` directory that you specified during the installation.

This topic contains the following information:

- "Reviewing the Installation Log Files for Siebel Tools" on page 244
- "Verifying the Installation Version Number for Siebel Tools" on page 244
- "Reviewing the Installation Directories for Siebel Tools" on page 245
- "Verifying Successful Installation of Siebel Tools" on page 246
Reviewing the Installation Log Files for Siebel Tools

After installing Siebel Tools, review the installation log files to verify that all of the components installed successfully, particularly if you experienced any difficulties with the installation. The log files are created in the following directory:

```
SIEBEL_TOOLS_ROOT\cfgtool\logs\oui
```

The relevant log files for an installation session are named installActions<date_time>.log file. In the file name, `date_time` represents the date and time when the file was created; for example, installActions2017-07-02_10-28-04PM.log. For each set of files created, the oldest and largest log file generally represents the Siebel module being installed.

Verifying the Installation Version Number for Siebel Tools

After installing Siebel Tools, verify the version number of the installed software.

**To verify the installation version number for Siebel Tools**

1. Open a DOS window.
2. Set the value of the ORACLE_HOME environment variable to correspond to your installation location, such as `C:\Siebel\Tools`. For example, you might enter a command like this:
   ```
   set ORACLE_HOME=C:\Siebel\Tools
   ```
3. Navigate to the `opatch` directory within your installation. For example, you might enter a command like this:
   ```
   cd C:\Siebel\Tools\opatch
   ```
4. Enter the following command:
   ```
   opatch lsinventory
   ```

   Installed components within the specified Oracle home are displayed, with the version number as managed by the Oracle Universal Installer software. For example, the version number of an installation of Siebel CRM version 17.0 is shown as 17.0.
Reviewing the Installation Directories for Siebel Tools

The following minimum directories are created for a Siebel Tools installation. These directories, the files and subdirectories they contain, and various other files are created in the directory that you specified during the installation, such as `C:\Siebel\Tools`. Use Windows Explorer to verify the directory structure on your computer. In the list, `lang` represents each language that you have installed, such as `ENU` for U.S. English.

### SIEBEL_TOOLS_ROOT
The directory for the Siebel Tools installation, such as `C:\Siebel\Tools` (or a similar location). This installation directory contains the subdirectories identified here. You can change the name during the installation process. For more information, see "Requirements for Installing Siebel Tools" on page 324.

<table>
<thead>
<tr>
<th>Directory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicationcontainer</td>
<td>Contains files related to the application container. The subdirectory <code>webapps/siebel</code> contains the default HTML file (default.htm) and also subdirectories such as files, fonts, htmltemplates, images, and scripts. CSS files are located in the files directory, for example.</td>
</tr>
<tr>
<td>bin</td>
<td>All binary files (.exe, .dll, .cfg, .dsn, .enu, .bat), configuration files, and user preference files.</td>
</tr>
<tr>
<td></td>
<td><code>lang</code> Language-specific DLL files.</td>
</tr>
<tr>
<td></td>
<td><code>dll</code> Siebel Tools program library files.</td>
</tr>
<tr>
<td></td>
<td><code>bin</code> Siebel Tools binary files.</td>
</tr>
<tr>
<td></td>
<td><code>exe</code> Siebel Tools executable files.</td>
</tr>
<tr>
<td>cfgtoollogs</td>
<td>Contains installation log files.</td>
</tr>
<tr>
<td>classes</td>
<td>Java code files.</td>
</tr>
<tr>
<td></td>
<td>examples\src</td>
</tr>
<tr>
<td></td>
<td>examples\src\com</td>
</tr>
<tr>
<td></td>
<td>examples\src\com\siebel</td>
</tr>
<tr>
<td></td>
<td>examples\src\com\extra</td>
</tr>
<tr>
<td></td>
<td>examples\src\com\integration</td>
</tr>
<tr>
<td></td>
<td>examples\src\com\integration\mq</td>
</tr>
<tr>
<td></td>
<td>examples\src\com\integration\servlet</td>
</tr>
<tr>
<td></td>
<td>Examples of Java code files.</td>
</tr>
<tr>
<td>help</td>
<td>Siebel Tools help files.</td>
</tr>
<tr>
<td></td>
<td><code>lang</code> Help files for the language that you installed.</td>
</tr>
<tr>
<td>local</td>
<td>The local, extracted database.</td>
</tr>
<tr>
<td></td>
<td>files Local file attachments.</td>
</tr>
<tr>
<td></td>
<td>inbox Not used for Siebel Tools.</td>
</tr>
<tr>
<td></td>
<td>outbox Not used for Siebel Tools.</td>
</tr>
<tr>
<td>locale</td>
<td>Text files for installed languages containing version information.</td>
</tr>
<tr>
<td>log</td>
<td>Log files from Siebel Tools operations.</td>
</tr>
<tr>
<td>msgtempl</td>
<td>Message files.</td>
</tr>
<tr>
<td>opatch</td>
<td>Files used by the opatch utility.</td>
</tr>
</tbody>
</table>
Verifying and Troubleshooting Your Installation

Verifying Installation for Siebel Tools

Verifying Successful Installation of Siebel Tools
After installing Siebel Tools, verify that installation was successful by starting Siebel Tools and connecting to the Siebel database.

To verify that the Siebel Tools installation completed successfully
- Start Siebel Tools and log in to the Siebel database.

Verifying Directory Permissions for Siebel Tools
After installing Siebel Tools, verify that the Siebel Tools user has sufficient permissions to read and write data to the Siebel Tools installation directory.

To verify directory permissions for Siebel Tools
1. Select the Siebel Tools root directory and right-click on it.
2. Choose Properties and go to the Sharing tab.
3. Make sure that the Siebel Tools user has read and write access.

In addition, in user account properties, the Siebel Tools user must not be defined as a restricted user in the group membership section.

Verifying the ODBC Data Sources for Siebel Tools
The Siebel Tools installer creates the ODBC data sources described in Table 19. By default, these are created as system data sources, which are visible to all of the user accounts on the computer where Siebel Tools is installed.

Table 19. Siebel Tools ODBC Data Sources

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCAL_XE</td>
<td>Connects to the local database using Oracle Database XE.</td>
</tr>
<tr>
<td>SAMPLE_XE</td>
<td>Connects to the sample database using Oracle Database XE.</td>
</tr>
</tbody>
</table>
Verifying and Troubleshooting Your Installation

■ Verifying Installation for the Siebel Web Client

For Oracle Database, verify that the following registry keys are set as shown. These values are required in order for the ODBC driver to behave correctly.

- PacketSize = 0
- EnableScrollableCursors = 0
- ColumnsAsChar = 1
- ColumnSizeAsCharacter = 1

For more information about how to run the Microsoft ODBC Administrator to verify ODBC data sources, see “Verifying the ODBC Data Source” on page 235. Consult this topic as it is presented in Siebel Installation Guide for Microsoft Windows. See also “Requirements for Installing Siebel Tools” on page 324.

Verifying Installation for the Siebel Web Client

After installing the Siebel Web Client software as a new installation or as a migration installation, review the installation log files, verify the version number of your installed software, and review the Siebel Web Client directories and files that now exist under the SIEBEL_CLIENT_ROOT directory that you specified during the installation.

This topic contains the following information:

■ “Reviewing the Installation Log Files for the Siebel Web Client” on page 247
■ “Verifying the Installation Version Number for the Siebel Web Client” on page 248
■ “Reviewing the Installation Directories for the Siebel Web Client” on page 248
■ “Verifying ODBC Data Sources for the Siebel Developer Web Client” on page 249

Related Topic
“Installing the Siebel Web Client” on page 181

Reviewing the Installation Log Files for the Siebel Web Client

After installing the Siebel Web Client software, review installation log files to verify that all of the components installed successfully, particularly if you experienced any difficulties with the installation. The log files are created in the following directory:

SIEBEL_CLIENT_ROOT\cfgtool\logs\oui
Verifying and Troubleshooting Your Installation

Verifying Installation for the Siebel Web Client

The relevant log files for an installation session are named installActions<date_time>.log file. In the file name, <date_time> represents the date and time when the file was created; for example, installActions2017-07-02_10-28-04PM.log. For each set of files created, the oldest and largest log file generally represents the Siebel module being installed.

This topic applies to the Siebel Web Client installation, optionally with the local database or sample database.

Verifying the Installation Version Number for the Siebel Web Client

After installing the Siebel Web Client software, verify the version number of the installed Siebel software.

This topic applies to the Siebel Web Client installation, optionally with the local database or sample database.

To verify the installation version number for the Siebel Web Client

1. Open a DOS window.
2. Set the value of the ORACLE_HOME environment variable to correspond to your installation location, such as $ORACLE_HOME. For example, you might enter a command like this:
   ```
   set ORACLE_HOME=C:\Siebel\Client
   ```
3. Navigate to the opatch directory within your installation. For example, you might enter a command like this:
   ```
   cd C:\Siebel\Client\opatch
   ```
4. Enter the following command:
   ```
   opatch lsinventory
   ```
   Installed components within the specified Oracle home are displayed, with the version number as managed by the Oracle Universal Installer software. For example, the version number of an installation of Siebel CRM version 17.0 is shown as 17.0.

Reviewing the Installation Directories for the Siebel Web Client

The following minimum directories are created for a Siebel Web Client installation. These directories, the files and subdirectories they contain, and various other files are created in the directory that you specified during the installation, such as $ORACLE_HOME. Use Windows Explorer to verify the directory structure on your computer.

**SIEBEL_CLIENT_ROOT.** The directory for the Siebel Web Client installation, such as $ORACLE_HOME (or a similar location). This installation directory contains the subdirectories identified here. You can change the name during the installation process. For more information, see “Requirements for Installing Siebel Web Clients” on page 321.

**bin.** Contains all of the binary files (*.exe, *.dll, and so on), configuration files (*.cfg), user preference files, and language-specific files.

**cfgtoollogs.** Contains installation log files.
fonts. Contains font files.
lex. Contains dictionary files used by the spelling checker.
local. Where the local database is stored.
locale. Stores language-specific files.
log. Stores the log files fromSiebel Web Client operations, such as synchronization.
msgtempi. Stores message files used by the Siebel Web Client.
opatch. Contains files used by the opatch utility.
oraclexe. The installation path for Oracle Database XE. This directory is created if you have installed that module for the local database or sample database, as described in “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.
public. Contains the default HTML file (default.htm) and also subdirectories such as files, fonts, htmltemplates, images, and scripts. CSS files are located in the files directory, for example.
sqltempi. Contains SQL scripts. Do not modify these files.
temp. Contains working report files.
upgrade. Contains Siebel Anywhere upgrade files that have been retrieved by the user.

Verifying ODBC Data Sources for the Siebel Developer Web Client
Verification of ODBC data sources for the Siebel Developer Web Client is similar to that for Siebel Tools. For information, see “Verifying the ODBC Data Sources for Siebel Tools” on page 246.

Verifying Installation for Oracle Database XE
Oracle Database XE is installed with Siebel Tools or Siebel Mobile Web Client. You can verify the existence of or the successful installation of Oracle Database XE in multiple ways. This topic includes the following information:

- “Verifying Installation of Oracle Database XE” on page 250
- “Verifying the ODBC Data Source for Oracle Database XE” on page 250
- “Verifying the TNSNAMES.ORA Entry for Oracle Database XE” on page 251

Related Topics
"Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
“Verifying Installation for Siebel Tools” on page 243
Verifying and Troubleshooting Your Installation

Verifying Installation of Oracle Database XE

Use the following methods to verify the installation of Oracle Database XE. Also perform the other verification steps in this topic. See also the documentation for Oracle Database Express Edition on Oracle Help Center.

**To verify installation of Oracle Database XE**

- Do any or all of the following:
  - Open SERVICES.MSC and check for OracleServiceXE.
  - Open Programs and Features and check for Oracle Database XE under installed programs.
  - Check for the presence of the `oraclexe` directory in the Siebel Tools or Siebel Mobile Web Client installation.
  - Open the `install.log` file, which is available under the `%temp%` folder. Make sure that `ResultCode` is set to zero.
  - Run the command below to find the entry for Oracle Database XE in the registry:
    ```
    reg query HKLM\SOFTWARE\ORACLE\KEY_XE /v ORACLE_BASE
    ```
  - Start Siebel Tools and connect to the LOCAL_XE data source, or start Siebel Mobile Web Client and connect to the LOCAL_XE or SAMPLE_XE data source.

  **NOTE:** For Siebel Mobile Web Client, or for Siebel Tools if you did not already install the local database, then connecting to LOCAL_XE initializes the local database. Users must attempt this only after a local database has been extracted for them by the system administrator.

Verifying the ODBC Data Source for Oracle Database XE

Installing Oracle Database XE with Siebel Tools or Siebel Mobile Web Client automatically creates an ODBC system data source name (DSN) that Siebel Tools or Siebel Mobile Web Client use to connect to an Oracle Database XE installation. The ODBC data sources are as follows:

- LOCAL_XE (for a Siebel Tools or Siebel Mobile Web Client installation, with the local database using Oracle Database XE)
- SAMPLE_XE (for a Siebel Mobile Web Client installation, with the sample database using Oracle Database XE)

**To verify the ODBC data source for Oracle Database XE**

1. Open ODBCAD32.exe, which is available in the `C:\Windows\SysWOW64` directory.
2. Check that one of the following ODBC data source has been added under the System DSN tab, corresponding to your installation: either LOCAL_XE or SAMPLE_XE.
3. Make sure that the DSN connects.
Verifying the TNSNAMES.ORA Entry for Oracle Database XE

Use the following procedure to verify the TNSNAMES.ORA entry for Oracle Database XE.

To verify the TNSNAMES.ORA entry for Oracle Database XE

1. Open TNSNAMES.ORA, which is available under Oracle_DB_Client\network\admin.
2. Verify that a new entry of LOCAL_XE or SAMPLE_XE has been added.

Verifying Network Connectivity for the Siebel Server Computer

The Siebel Server must have network access to other Siebel Enterprise Server components, such as the Siebel Gateway, the Siebel Application Interface, the Siebel database on the RDBMS, and the Siebel File System. Use the following procedure to verify that the Siebel Server computer can access other Siebel Enterprise Server components.

NOTE: For information about verifying network connectivity for IBM DB2 for z/OS, see Implementing Siebel Business Applications on DB2 for z/OS.

To verify network connectivity for the Siebel Server computer

1. Verify network connectivity to the Siebel Gateway, the Siebel Application Interface, and the Siebel database from the Siebel Server computer, using the test utility for your network type.
   - For TCP/IP networks, use the ping utility to verify network connectivity. Or test the connection through Control Panel, Administrative Tools, Data Sources (ODBC), and then System DSN.
2. For Oracle Database, verify connectivity to the Siebel database, then go to Step 4 on page 252.
   - Use the tnsping utility and Oracle Database connectivity alias, as appropriate to your database, from a command prompt window to make sure that you can connect to the database using the network connect string that you defined.
3. For IBM DB2, verify connectivity to the Siebel database, then go to Step 4 on page 252.
   a. Open a DB2 Command Window to make sure that you can connect to your database.
   b. Enter:
      
      \[
      \text{db2 connect to database_alias user user\_ID using password}
      \]

      where:
      - database\_alias is your database alias
      - user\_ID is a valid user name on DB2
      - password is the password for that user\_ID
Verifying and Troubleshooting Your Installation

■ Verifying Network Connectivity for Mobile Users

If your connection is valid, then you see a message that looks like the following:

- The connection test is successful

  Database Server = DB2/AIX/Solaris x.x.x
  SQL authorization ID = SADMIN
  Database alias = DB_Alias

  c If your connection is not valid, then verify your configuration.
  d To close the connection, type `db2 terminate`.

4 Provide network connections from the Siebel Server to all of the applicable Siebel File System directories.
   For more information, see “Creating the Siebel File System” on page 298.

5 Verify that the Siebel File System directories are visible and that the Siebel service owner account has the necessary permissions on these directories.
   If you are clustering the Siebel File System, then use the Network IP resource or Network Hostname Resource assigned to that cluster file share.

Verifying Network Connectivity for Mobile Users

Siebel Mobile Web Client users must be able to connect to the Siebel Remote Server, using TCP/IP, to synchronize with the master Siebel database. Make sure that you have the correct network software and hardware installed to support this connectivity and that your remote users are able to establish a TCP/IP connection to the server. To check connectivity, use the ping utility.

Related Book
Siebel Remote and Replication Manager Administration Guide

Configuring the Siebel Mobile Web Client When Neither Siebel VB nor Siebel eScript Is Licensed

By default, the Siebel Mobile Web Client has Siebel VB or Siebel eScript enabled. The parameter EnableScripting is set to True in the application configuration files. If this parameter is True, but neither Siebel VB nor Siebel eScript is licensed, then the Siebel Mobile Web Client does not start. An error message is returned, indicating that you must turn off Siebel VB or Siebel eScript before running the Siebel Mobile Web Client.
To configure the Siebel Mobile Web Client when neither Siebel VB nor Siebel eScript is licensed

- Set EnableScripting to FALSE in the configuration file used by your Siebel Mobile Web Client, such as uagent.cfg for Siebel Call Center. This configuration file is located in the directory SIEBEL_CLIENT_ROOT\bin\LANGUAGE.

  where:

  - SIEBEL_CLIENT_ROOT is the directory where you installed the Siebel Mobile Web Client.
  - LANGUAGE is the three-letter code for the language in which you are running the Siebel Mobile Web Client.
This chapter provides instructions for uninstalling Siebel Business Applications. It includes the following topics:

- About Uninstalling Siebel Business Applications on page 255
- Process of Removing Configuration Data on page 261
- Uninstalling Siebel Enterprise Server or Siebel Application Interface on page 264
- Uninstalling Siebel Web Clients or Siebel Tools on page 270
- About Uninstalling Earlier Versions of Siebel Business Applications on page 275

### About Uninstalling Siebel Business Applications

The topics in this chapter describe how to uninstall the current release, Siebel CRM version 17.0. Separate instructions are provided for server and client software modules. This chapter describes both full uninstallation and rollback uninstallation:

- **Full uninstallation** removes the installed Siebel software module.

- **Rollback uninstallation** (also referred to as rollback or rolling back) uninstalls a Siebel CRM release that you had installed as a patch release and reverts to the previously installed software release, where applicable. With a rollback uninstallation, the release that you can revert to depends on how you originally installed the Siebel CRM software module.

**NOTE:** Siebel Management Server is no longer provided, as of Siebel Innovation Pack 2014. Siebel Web Server Extension (SWSE) is no longer provided, as of Siebel Innovation Pack 2017. For more information about uninstalling any software for a prior Siebel CRM version, see "About Uninstalling Earlier Versions of Siebel Business Applications" on page 275.

This topic includes the following information:

- "Uninstallation Options for Siebel Modules“ on page 256
- "Requirements for Uninstalling Siebel Business Applications“ on page 256
- "Limitations for Uninstalling Siebel Business Applications“ on page 259

**Related Topics**

- “Installation-Related Changes for Siebel Innovation Pack 2017” on page 21
- "About Uninstalling Earlier Versions of Siebel Business Applications“ on page 275
Uninstallation Options for Siebel Modules

This topic summarizes the uninstallation options for the Siebel modules described in this guide.

This topic is part of “About Uninstalling Siebel Business Applications” on page 255.

The following uninstallation options apply:

- If you installed the current release as a new installation, then you can perform a full uninstallation. Performing a rollback uninstallation is not an option in this case. This option applies to Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, and Siebel Tools.

- If you installed the current release as a migration installation, then you can perform a rollback uninstallation to revert to your previously installed software version (such as Siebel CRM version 8.1.1.x, Siebel CRM version 8.2.2.x, Siebel CRM version 15.x, or Siebel CRM version 16.x). You can also perform a full uninstallation. This option applies to Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, and Siebel Tools.

  **CAUTION:** Different rollback uninstallation methods are provided for different situations. Make sure to use the correct method for your situation.

- If you installed a Siebel Patchset release on top of an installation of the current release, then you can uninstall the Siebel Patchset. This guide does not describe uninstallation (rollback) for Siebel Patchset releases. For the readme documents for individual Siebel Patchset releases, see Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

Related Topics
“Requirements for Uninstalling Siebel Business Applications” on page 256
“Limitations for Uninstalling Siebel Business Applications” on page 259

Requirements for Uninstalling Siebel Business Applications

Uninstallation of Siebel Business Applications software is subject to various requirements.

This topic is part of “About Uninstalling Siebel Business Applications” on page 255.

The following requirements apply to uninstalling Siebel Business Applications software:

- **Use documented methods.** To successfully uninstall, you must use the supported methods documented in this chapter and observe all of the requirements and limitations that apply for uninstalling each module. Review this entire chapter before you uninstall any software.
■ **Before a full uninstallation, you must remove configuration data.** For Siebel Enterprise Server components and Siebel Application Interface that were previously configured using Siebel Management Console, you must perform tasks to remove the configuration data before you uninstall the Siebel software. For detailed information, see “Process of Removing Configuration Data” on page 261.

■ **You must have the required access.** When you uninstall an instance of Siebel Enterprise Server or Siebel Application Interface, you must either be the same user or be a user in the same group as the user who performed the installation. This requirement applies to both full uninstallation and rollback uninstallation.

■ **Do not delete installation directories until you have performed a full uninstallation.** Do not delete the installation directories for any Siebel module until after you have performed a full uninstallation of the module. After a full uninstallation has completed successfully, you might have to restart your computer. Afterwards, you can safely delete the remaining directories. (Do not delete any installation directories after you perform a rollback uninstallation.)

■ **Siebel modules must use the same version after a rollback uninstallation.** If you roll back to the previously installed version of Siebel Enterprise Server and SWSE, then you must also perform a similar rollback uninstallation for all of the other Siebel modules sharing the same Siebel Enterprise and Siebel database. After performing a rollback, see the documentation that applies to your currently installed Siebel software version for information about this version.

■ **To perform a rollback uninstallation, you must have retained the previous installation.** When you installed the current release as a migration installation, the existing installation directory was renamed. You must retain this installation directory in order to be able to roll back to the version that it represents.

  During a migration installation, the original installation directory is renamed from `Original Name` to `Original Name_pre17.0`. The new installation directory is named `Original Name`. Examples follow:

  ■ If the original installation directory name for Siebel Enterprise Server was `ses`, then this directory is renamed to `ses_pre17.0`. The new installation directory is named `ses`.

  ■ If the original installation directory name for SWSE (from the installation of a prior version) was `sweapp`, then this directory is renamed to `sweapp_pre17.0`. The new installation directory is named `sweapp`.

  ■ If the original installation directory name for Siebel Web Client was `Client_1`, then this directory is renamed to `Client_1_pre17.0`. The new installation directory is named `Client_1`.

  ■ If the original installation directory name for Siebel Tools was `Tools_1`, then this directory is renamed to `Tools_1_pre17.0`. The new installation directory is named `Tools_1`.

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For Siebel Enterprise Server and Siebel Application Interface, you must use the correct rollback uninstallation method for your situation. Different rollback uninstallation methods are provided for different situations. You must use the correct method for your situation, as follows:

- If you originally installed Siebel CRM version 8.1.1 (using the InstallShield installer) and are now rolling back to Siebel CRM version 8.1.1 through version 8.1.1.7, then you must use the Oracle Universal Installer uninstallation option to roll back the current version. (You must use this method because it removes the defined Oracle home, which no longer applies after the rollback in this case.)

- If you are rolling back to Siebel CRM version 8.1.1.8 or later, version 8.2.2.x, version 15.x, or version 16.x, then you must use the manual steps to roll back the current version. (You must use this method because it does not remove the defined Oracle home, which still applies after the rollback in this case. If the Oracle home is removed, then the rollback process is incomplete and your original installation cannot be used in its current state.)

After a rollback uninstallation, you must restore the Siebel Repository. New functionality and bug fixes associated with the current release are no longer available after a rollback uninstallation. After you roll back the current release, you must remove any configuration changes and restore the Siebel Repository and the Siebel Repository files (SRF) to the state when you first installed the current release. (SRF files are applicable only to releases prior to Siebel Innovation Pack 2017.)

**NOTE:** After you installed the current release as a migration installation, you would have used the Incremental Repository Merge feature to update the Siebel Repository and to make other Siebel database changes. For more information about Incremental Repository Merge, see [Siebel Database Upgrade Guide](#).

After a rollback uninstallation, you must re-enable the applicable services. After a rollback uninstallation, the Siebel Server service and the Siebel Gateway Name Server service are disabled and must be re-enabled. The steps for doing this are part of the rollback procedure in this chapter “Rolling Back the Siebel Enterprise Server” on page 266. For example, you might edit the service properties and specify that "startup-type" is automatic.

After a rollback uninstallation, refer to earlier versions of the documentation. After you roll back the current release, you must refer to the documentation that applies to the Siebel CRM version that you revert to. For example, if you revert to Siebel CRM version 8.1.1.7, then for information about the new effective version of your installed software you must refer to version 8.1, Rev. A of the [Siebel Installation Guide](#) for the operating system you are using. This version of the guide is available from 1461732.1 (Article ID) on My Oracle Support.

For versions of [Siebel Maintenance Release Guide](#) for applicable releases, see 880452.1 (Article ID) on My Oracle Support for version 8.1.1.x or see 1441523.1 (Article ID) for version 8.2.2.x. For applicable Siebel Patchset releases, see [Siebel Patchset Installation Guide for Siebel CRM](#), 1614310.1 (Article ID) on My Oracle Support.

After a rollback uninstallation, verify the software version. After a rollback uninstallation, verify the version number of the installed software that you revert to. See also “Verifying Installation for Siebel Business Applications” on page 217 and related topics.
After a rollback uninstallation, you must revert to previous required versions of third-party software. After a rollback uninstallation to a version prior to Siebel Innovation Pack 2017, you must revert installed third-party (or non-Siebel Oracle) software to the versions supported for the version of Siebel CRM that you are reverting to, where necessary. For supported versions of third-party software, see the Certifications tab on My Oracle Support.

After a rollback uninstallation, you must reconfigure SWSE. After a rollback uninstallation to a version prior to Siebel Innovation Pack 2017, you must reconfigure the Siebel Web Server Extension (SWSE). For more information, see “Additional Tasks for Migration Installations” on page 57 and “About Configuring Siebel Business Applications” on page 63.

After a rollback uninstallation, configure Oracle Configuration Manager (if necessary). If Oracle Configuration Manager was not configured before you performed a migration installation of Siebel Enterprise Server, then, after a rollback to the original installation, you must configure this instance of Oracle Configuration Manager manually in order for it to function properly.

Clustered nodes present special requirements. Clustered nodes present special requirements that might change part of the installation and uninstallation process from what is described in this guide.

The following recommendations apply to performing a full uninstallation:

Uninstall Database Configuration Utilities only after backing up files. Before you uninstall an instance of Siebel Enterprise Server that includes the Database Configuration Utilities and Siebel Server, it is strongly recommended that you back up relevant files, such as summary.html and summary.txt in the $DBSRVR_ROOT directory and the files in the log directory under $SIEBSRVR_ROOT.

Uninstall Database Configuration Utilities only after removing configuration data. Before you uninstall the Database Configuration Utilities and the Siebel Server it is installed with, it is strongly recommended that you first remove the Siebel Enterprise configuration or remove both the Enterprise and the Siebel Gateway.

Related Topics

“Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163
“Uninstallation Options for Siebel Modules” on page 256
“Limitations for Uninstalling Siebel Business Applications” on page 259

Related Books

Siebel Database Upgrade Guide

Limitations for Uninstalling Siebel Business Applications

Uninstallation of Siebel Business Applications software is subject to various limitations.

This topic is part of “About Uninstalling Siebel Business Applications” on page 255.
The following limitations apply to uninstalling Siebel Business Applications software:

- **You cannot selectively uninstall Siebel Enterprise Server components installed together on the same computer.** For example, if you have installed Siebel Gateway and Siebel Server in the same Siebel Enterprise Server instance, then you cannot uninstall Siebel Server by itself. If you do not want to use this Siebel Server, then you can remove configuration data for this Siebel Server or disable the Siebel Server so that it does not run on this server computer. For information about disabling Siebel Server components, see *Siebel System Administration Guide*. See also “Preparing to Run Siebel Server Components” on page 158.

- **You cannot selectively uninstall Siebel language packs.** If you have installed a particular Siebel language pack but determine that it is not needed on that installation, then you can deploy your applications using only the languages that you require. You cannot uninstall the Siebel language pack that you do not need.

  If you have already deployed languages that you do not require, then you can remove and recreate a Siebel Server configuration with fewer deployed languages, or recreate a Siebel Application Interface profile with fewer deployed languages and reapply it to each installed Siebel Application Interface instance. Alternatively, you can disable unneeded language-specific Application Object Managers or other components. For these tasks, you do not uninstall the Siebel software. For more information about multilingual deployments, see “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163 and *Siebel Global Deployment Guide*.

- **Limitations might apply for previous versions that you roll back to.** If you installed the current release as a migration installation and are rolling it back, then you can revert to the previously installed software version. After rolling back, however, you might not be able to roll back again to an earlier release. For more information, see “About Uninstalling Earlier Versions of Siebel Business Applications” on page 275.

- **This guide describes un installing the current release only.** For information about uninstalling any version prior to the current release (for example, uninstalling Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x), see “About Uninstalling Earlier Versions of Siebel Business Applications” on page 275.

- **This guide describes GUI uninstallation only.** Topics in this chapter describe full uninstallation by running Oracle Universal Installer in GUI mode. It is also possible to perform a full uninstallation by using unattended mode, similar to the installation process described in “Installing Siebel Business Applications in Unattended Mode” on page 54.

- **This guide does not describe uninstalling Siebel Patchset releases.** If you installed a Siebel Patchset release on top of an installation of the current release, then you can uninstall the Siebel Patchset. For information about uninstalling a Siebel Patchset release, see the readme document for the Siebel Patchset. This guide does not describe uninstallation for Siebel Patchset releases. For the readme documents for individual Siebel Patchset releases, see *Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID)* on My Oracle Support.

**Related Topics**

- “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163
- “Uninstallation Options for Siebel Modules” on page 256
- “Requirements for Uninstalling Siebel Business Applications” on page 256
“About Uninstalling Earlier Versions of Siebel Business Applications” on page 275

Related Books
Siebel System Administration Guide
Siebel Global Deployment Guide
Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support

Process of Removing Configuration Data

This topic describes the tasks that you perform for removing the configuration data for the Siebel Enterprise Server components and the Siebel Application Interface. You perform these tasks using the Siebel Management Console, which you used for configuration.

Removing configuration data is related to uninstalling the Siebel software, but it is distinct from it. Before you uninstall Siebel Enterprise Server or Siebel Application Interface, you must remove configuration data that was previously created and deployed for these modules. In some cases, you might choose to remove configuration data without uninstalling. Removing configuration data does not affect the profiles that you used when deploying the installed modules.

This topic does not describe removing configuration profiles that you have created but have not deployed. For more information, see “Running the Siebel Management Console” on page 67.

Perform the tasks for removing configuration data in the following order (the reverse of the normal order of configuration):

1. “Removing the Siebel Application Interface Configuration” on page 262
2. “Removing the Siebel Server Configuration” on page 262
3. “Removing the Siebel Enterprise” on page 263
4. “Removing the Siebel Gateway” on page 263

Related Topics
Chapter 4, “Configuring Siebel Business Applications Server Modules.”
“Running the Siebel Management Console” on page 67
“Additional Tasks for Migration Installations” on page 57
“About Uninstalling Siebel Business Applications” on page 255
“Uninstalling Siebel Enterprise Server or Siebel Application Interface” on page 264
Removing the Siebel Application Interface Configuration

The Siebel Management Console lets you remove the configuration that you deployed for the Siebel Application Interface. This task removes the application configuration data that was created when you deployed the Siebel Application Interface profile.

**NOTE:** This task applies only to instances of Siebel Application Interface that are in a deployed state.

This task is a step in “Process of Removing Configuration Data” on page 261.

To remove the Siebel Application Interface configuration

1. Run the Siebel Management Console, as described in “Running the Siebel Management Console” on page 67.
2. Click Siebel Deployment in the left panel.
3. In the hierarchy shown, click the Application Interface box, under Siebel Deployment.
4. Click to select the box for the deployed instance of Siebel Application Interface for which you want to remove the configuration. Deployed instances show a solid green circle.
5. Click the Delete icon in the top right, whose tooltip text reads Delete Application Interface.
   If the delete step is successful, then the deployment item disappears. If not, then an error message is displayed.

Removing the Siebel Server Configuration

The Siebel Management Console lets you remove Siebel Server configuration data from the Siebel Gateway. This task removes the Siebel Server service from the local server computer.

**NOTE:** When removing Siebel Server configuration data using this task, observe all of the documented requirements. Perform this task only if you have uninstalled, or removed all of the applicable configuration data for, all of the installed instances of Siebel Application Interface that depend on this Siebel Server. Before you uninstall a previously configured instance of Siebel Server, you must perform this task. This task can also be useful in cases that do not involve uninstallation. When you perform this task, the Siebel Gateway must be running.

If this Siebel Server was not configured, then this task is not necessary before uninstallation.

This task is a step in “Process of Removing Configuration Data” on page 261.

To remove the Siebel Server configuration

1. Make sure that the Siebel Gateway is running.
2. Run the Siebel Management Console, as described in “Running the Siebel Management Console” on page 67.
3. Click Siebel Deployment in the left panel.
4  In the hierarchy shown, click the Siebel Server box, under Siebel Deployment.
5  Click to select the box for the deployed instance of Siebel Server for which you want to remove
the configuration. Deployed instances show a solid green circle.
6  Click the Delete icon in the top right, whose tooltip text reads Delete Siebel Server.
   If the delete step is successful, then the deployment item disappears. If not, then an error
   message is displayed.

Removing the Siebel Enterprise

The Siebel Management Console lets you remove the Siebel Enterprise for a Siebel deployment.

**NOTE:** When removing a Siebel Enterprise using this task, observe all of the documented
requirements. Perform this task only if you have uninstalled, or removed all of the applicable
configuration data for, all of the installed instances of Siebel Application Interface and Siebel Server
that depend on this Siebel Enterprise. When you perform this task, the Siebel Gateway must be
running.

This task is a step in "Process of Removing Configuration Data" on page 261.

**To remove the Siebel Enterprise**

1  Make sure that the Siebel Gateway is running.
2  Run the Siebel Management Console, as described in "Running the Siebel Management Console"
on page 67.
3  Click Siebel Deployment in the left panel.
4  In the hierarchy shown, click the Enterprise box, under Siebel Deployment.
5  Click to select the box for the deployed Siebel Enterprise that you want to remove. Deployed
instances show a solid green circle.
6  Click the Delete icon in the top right, whose tooltip text reads Delete Enterprise.
   If the delete step is successful, then the deployment item disappears. If not, then an error
   message is displayed.

Removing the Siebel Gateway

The Siebel Management Console lets you remove the Siebel Gateway service from the server
computer, for a Siebel Gateway that you have installed and configured.

**NOTE:** When removing a Siebel Gateway using this task, observe all of the documented
requirements. Perform this task only if you have uninstalled, or removed all of the applicable
configuration data for, all of the installed instances of Siebel Application Interface and Siebel Server
that depend on this Siebel Gateway. Before you uninstall a previously configured instance of Siebel
Gateway, you must perform this task. When you perform this task, the Siebel Gateway must be
running.
If this Siebel Gateway was not configured, then this task is not necessary before uninstallation.

This task is a step in “Process of Removing Configuration Data” on page 261.

**To remove the Siebel Gateway**

1. Make sure that the Siebel Gateway is running.

2. Run the Siebel Management Console, as described in "Running the Siebel Management Console” on page 67.

3. Click Settings in the left panel.
   
   The Siebel Management Console displays the URL for the physical instance of Siebel Gateway for the Siebel deployment.

4. Check the box labeled *I understand that removing Gateway will remove all profiles and deployments registered with the Gateway and remove the Gateway services.*

5. Click Remove Gateway.

### Uninstalling Siebel Enterprise Server or Siebel Application Interface

This topic describes how to uninstall Siebel Enterprise Server and Siebel Application Interface software for the current release. Both full uninstallation and rollback uninstallation are described. Rollback uninstallation rolls back a migration installation of these modules. With a rollback uninstallation, you roll back to the previously installed software version (whether Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x).

In a full uninstallation, the installed Siebel Enterprise Server software components are uninstalled, which might include Siebel Gateway, Siebel Server, Database Configuration Utilities, EAI Connector, Siebel Enterprise Cache, and Siebel Constraint Engine. Some components might have been installed on a single computer or operating system instance, or different components might have been installed on multiple computers or operating system instances.

Siebel Application Interface is always uninstalled as a separate task, for either full uninstallation or rollback uninstallation. In the current release, Siebel Application Interface is installed in a different location than the other Siebel Enterprise Server components, although they use the same installer software. Siebel Application Interface replaces the Siebel Web Server Extension (SWSE), which in prior releases used a separate installer.

**CAUTION:** Before you proceed with any uninstallation task, review all of the information in "About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.

This topic includes the following information:

- “Uninstalling the Siebel Enterprise Server” on page 265
- “Rolling Back the Siebel Enterprise Server” on page 266
- “Uninstalling the Siebel Application Interface” on page 268
- “Rolling Back the Siebel Application Interface” on page 269
Uninstalling the Siebel Enterprise Server

Use the following procedure to perform a full uninstallation of Siebel Enterprise Server software on a single computer or operating system instance.

**NOTE:** If you perform a rollback uninstallation rather than a full uninstallation, then you do not remove configuration data first. Use the steps described in “Rolling Back the Siebel Enterprise Server” on page 266 instead of those in this topic. Use the uninstallation method described in this topic only when it is appropriate: do not perform a full uninstallation by mistake.

This topic is part of “Uninstalling Siebel Enterprise Server or Siebel Application Interface” on page 264.

**To uninstall the Siebel Enterprise Server components**

1. Review all of the information in “About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.

2. Verify that you have performed any required tasks to uninstall other modules or remove configuration data.

   **NOTE:** For example, before you uninstall an instance of Siebel Enterprise Server, particularly one that includes Siebel Gateway, you must perform all of the applicable Siebel Management Console tasks to remove existing configuration data. For more information, see “Process of Removing Configuration Data” on page 261.

3. Open a new shell.

4. Navigate to the `$SIEBEL_ROOT/oui/bin` directory.

5. Start the Oracle Universal Installer software using the following command:

   ```
   ./runInstaller -deinstall -invPtrLoc inventory_location
   ```

   In this command, `inventory_location` is the full path of the oraInst.loc file (for example, `/export/home/oraInst.loc`), which points to the OUI inventory location. Use the `-invPtrLoc` option if you want to specify an inventory pointer file other than the default.

   This action starts the instance of Oracle Universal Installer that was installed with your Siebel Enterprise Server installation.

6. Click Installed Products.

7. In the Inventory dialog box, select the Oracle Home value (for example, SES_HOME) representing the installed instance of Siebel Enterprise Server software that you want to uninstall.

8. Click Remove.

9. Click Yes to confirm that you want to uninstall this Siebel Enterprise Server and all of its dependent components on the same computer.

   The Siebel Enterprise Server software is uninstalled from this computer.

10. In the Inventory dialog box, click Close.

11. In the Oracle Universal Installer window, click Cancel.
12 Restart your server.

Related Topics
Chapter 3, “Installing Siebel Business Applications Server Modules”
“About Uninstalling Siebel Business Applications” on page 255
“Process of Removing Configuration Data” on page 261

Rolling Back the Siebel Enterprise Server

Use the following procedure to roll back the current release of the Siebel Enterprise Server software on a single computer or operating system instance and revert to the previously installed software version. You can do this only when you have installed the current release as a migration installation for an existing installation of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x.

NOTE: To be able to roll back the current release and revert to a previous version, you must have retained the backup directory to which the previous installation was moved during the migration installation. During that installation, if the original Siebel Enterprise Server installation directory was named ses, for example, then it was renamed from ses to ses_pre17_0.

NOTE: This topic describes only rolling back a migration installation, not rolling back a patchset installation. For patchset uninstallation (rollback), see Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

This topic is part of “Uninstalling Siebel Enterprise Server or Siebel Application Interface” on page 264.

To roll back the Siebel Enterprise Server

1 Review all of the information in “About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.

2 Verify that the renamed original installation directory, such as ses_pre17_0, exists.

3 Stop the Siebel services for the Siebel CRM version 17.0 installation.

4 You must use the correct rollback uninstallation method for your situation, as follows. For more information, see “Requirements for Uninstalling Siebel Business Applications” on page 256.

   ■ If you originally installed Siebel CRM version 8.1.1 (using the InstallShield installer) and are now rolling back to Siebel CRM version 8.1.1 through version 8.1.1.7, then use the Oracle Universal Installer uninstallation option to uninstall Siebel CRM version 17.0. Follow the procedure described in “Uninstalling the Siebel Enterprise Server” on page 265, but do not remove configuration data. After performing this task, go to Step 12 on page 267. (Step 7 through Step 9 do not apply in this case.)

   ■ If you are rolling back to Siebel CRM version 8.1.1.8 or later, version 8.2.2.x, version 15.x, or version 16.x, then use the manual steps that follow. Go to the next step. (Step 7 through Step 9 apply in this case only.)
Uninstalling Siebel Business Applications

5. Delete the Siebel Gateway Name Server service using one of the following commands:
   - **Windows.** SIEBEL_ROOT\gtwysrvr\bin\siebctl.exe -S gtwyns -d
   - **UNIX.** SIEBEL_ROOT/gtwysrvr/bin/siebctl -S gtwyns -d

6. Stop all the running processes of application containers, which were installed and started during migration installation. You can do so by following one of the following methods:
   - **Windows.** Execute SIEBEL_ROOT\applicationcontainer\bin\shutdown.bat
   - **UNIX.** Execute SIEBEL_ROOT/applicationcontainer/bin/shutdown.sh

   For more information, see “Stopping and Starting the Application Container” on page 234.

7. Delete the directory representing the current installation of Siebel Enterprise Server for the current release. For example, if the directory name is ses, then delete this directory.

8. Rename the backup directory representing the previously installed software to use the original installation directory name for Siebel Enterprise Server. Rename the original (renamed) directory, such as ses_pre17.0, to ses (depending on your original installation directory name).

9. If you rolled back to Siebel CRM version 8.1.1.8 or later, version 8.2.2.x, version 15.x, or version 16.x, then verify the version number by using the opatch command, as described in “Verifying Installation for Siebel Business Applications” on page 217.

10. Open the file SIEBEL_ROOT\gtwysrvr\bin\gateway.cfg in any text editor and make a note of the port number mentioned in the value for the GatewayConnect parameter. You will replace the GATEWAYPORT string in the command mentioned in Step 11 on page 267 with this port number.

11. Create the Siebel Gateway Name Server service using one of the following commands:
   - **Windows.** SIEBEL_ROOT\gtwysrvr\BIN\siebctl.exe -h SIEBEL_ROOT\gtwysrvr -S gtwyns -a -g "'/f SIEBEL_ROOT\gtwysrvr\ADMIN\siebns.dat /t GATEWAYPORT /c SIEBEL_ROOT\gtwysrvr\bin\gateway.cfg" -q
   - **UNIX.** SIEBEL_ROOT/gtwysrvr/bin/siebctl -r SIEBEL_ROOT/gtwysrvr -S gtwyns -a -g "'/f SIEBEL_ROOT/gtwysrvr/sys/siebns.dat /t GATEWAYPORT /c SIEBEL_ROOT/gtwysrvr/bin/gateway.cfg" -q

12. Restart the Siebel services.

13. Run the Siebel Configuration Wizards, as necessary, to perform any required configuration tasks.

   **NOTE:** You must use the Configuration Wizards for the version of the software that you rolled back to. Additional requirements apply to the post-rollback environment.

14. If Oracle Configuration Manager was not configured before you performed a migration installation of Siebel Enterprise Server, then, after a rollback to the original installation, you must configure this instance of Oracle Configuration Manager manually in order for it to function properly.

**Related Topics**

Chapter 3, “Installing Siebel Business Applications Server Modules”

“Verifying Installation for Siebel Business Applications” on page 217

“About Uninstalling Siebel Business Applications” on page 255

“Process of Removing Configuration Data” on page 261
Uninstalling the Siebel Application Interface

Use the following procedure to perform a full uninstallation of Siebel Application Interface software on a single computer. Uninstalling Siebel Application Interface is similar to uninstalling the Siebel Enterprise Server.

**NOTE:** If you perform a rollback uninstallation rather than a full uninstallation, then you do not remove configuration data first. Use the steps described in "Rolling Back the Siebel Application Interface" on page 269 instead of those in this topic. Use the uninstallation method described in this topic only when it is appropriate: do not perform a full uninstallation by mistake.

This topic is part of "Uninstalling Siebel Enterprise Server or Siebel Application Interface" on page 264.

**To uninstall the Siebel Application Interface**

1. Review all of the information in "About Uninstalling Siebel Business Applications" on page 255, particularly the requirements and limitations.
2. Verify that you have performed any required tasks to uninstall other modules or remove configuration data.
   
   **NOTE:** For example, before you uninstall an instance of Siebel Application Interface, you must perform the Siebel Management Console task to remove existing Siebel Application Interface configuration data. For more information, see "Process of Removing Configuration Data" on page 261.
3. Open a new shell.
4. Navigate to the $SIEBEL_ROOT/oui/bin directory.
5. Start the Oracle Universal Installer software using the following command:
   ```
   ./runInstaller -deinstall -invPtrLoc inventory_location
   ```
   In this command, `inventory_location` is the full path of the oraInst.loc file (for example, `/export/home/oraInst.loc`), which points to the OUI inventory location. Use the `-invPtrLoc` option if you want to specify an inventory pointer file other than the default.
   
   This action starts the instance of Oracle Universal Installer that was installed with your Siebel Application Interface installation.
6. Click Installed Products.
7. In the Inventory dialog box, select the Oracle Home value (for example, EAPPWEB_HOME) representing the installed instance of Siebel Application Interface software that you want to uninstall.
8. Click Remove.
9. Click Yes to confirm that you want to uninstall this Siebel Application Interface on the same computer.
   
   The Siebel Application Interface software is uninstalled from this computer.
10. In the Inventory dialog box, click Close.
11. In the Oracle Universal Installer window, click Cancel.
12 Restart your server.

Related Topics
Chapter 3, “Installing Siebel Business Applications Server Modules”
"About Uninstalling Siebel Business Applications” on page 255
"Process of Removing Configuration Data” on page 261

Rolling Back the Siebel Application Interface

Use the following procedure to roll back the current release of the Siebel Application Interface software on a single computer and revert to the previously installed software version. You can do this only when you have installed the current release as a migration installation for an existing installation of Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x.

NOTE: To be able to roll back the current release and revert to a previous version, you must have retained the backup directory to which the previous installation was moved during the migration installation. During that installation, if the original SWSE installation directory was named sweapp, then it was renamed from sweapp to sweapp_pre17.0.

NOTE: This topic describes only rolling back a migration installation, not rolling back a patchset installation. For patchset uninstallation (rollback), see Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

This topic is part of “Uninstalling Siebel Enterprise Server or Siebel Application Interface” on page 264.

To roll back the Siebel Application Interface

1 Review all of the information in “About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.
2 Verify that the renamed original installation directory, such as sweapp_pre17.0, exists.
3 Stop the Web server.
4 You must use the correct rollback uninstallation method for your situation, as follows. For more information, see “Requirements for Uninstalling Siebel Business Applications” on page 256.
   ■ If you originally installed Siebel CRM version 8.1.1 (using the InstallShield installer) and are now rolling back to Siebel CRM version 8.1.1 through version 8.1.1.7, then use the Oracle Universal Installer uninstallation option to uninstall Siebel CRM version 17.0. Follow the procedure described in “Uninstalling the Siebel Application Interface” on page 268, but do not remove configuration data. After performing this task, go to Step 8 on page 270. (Step 5 through Step 7 do not apply in this case.)
   ■ If you are rolling back to Siebel CRM version 8.1.1.8 or later, version 8.2.2.x, version 15.x, or version 16.x, then use the manual steps that follow. Go to the next step. (Step 5 through Step 7 apply in this case only.)
5 Delete the directory representing the current installation of Siebel Application Interface for the current release. For example, if the directory name is `Siebel_AI` or `sweapp`, then delete this directory.

6 Rename the backup directory representing the previously installed software to use the original installation directory name for SWSE. Rename the original (renamed) directory, such as `sweapp_pre17.0`, to `sweapp` (depending on your original installation directory name).

7 If you rolled back to Siebel CRM version 8.1.1.8 or later, version 8.2.2.x, version 15.x, or version 16.x, then verify the version number by using the `opatch` command, as described in “Verifying Installation for Siebel Business Applications” on page 217.

8 Restart the Web server where you originally installed the SWSE.

9 Run the SWSE Configuration Wizard, as necessary, to perform any required configuration tasks if you had removed the SWSE configuration on the Web server before performing the migration installation of the current version.

   **NOTE:** You must use the SWSE Configuration Wizard for the version of the software that you rolled back to. Additional requirements apply to the post-rollback environment.

10 If Oracle Configuration Manager was not configured before you performed a migration installation of Siebel Application Interface, then, after a rollback to the original installation of SWSE, you must configure this instance of Oracle Configuration Manager manually in order for it to function properly.

### Related Topics

- Chapter 3, “Installing Siebel Business Applications Server Modules”
- “Verifying Installation for Siebel Business Applications” on page 217
- “About Uninstalling Siebel Business Applications” on page 255
- “Process of Removing Configuration Data” on page 261

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### Uninstalling Siebel Web Clients or Siebel Tools

This topic describes how to uninstall Siebel Web Clients (Mobile Web Client or Developer Web Client) or Siebel Tools. Both full uninstallation and rollback uninstallation are described. Rollback uninstallation rolls back a migration installation of these modules. With a rollback uninstallation, you roll back to the previously installed software version (whether Siebel CRM version 8.1.1.x, version 8.2.2.x, version 15.x, or version 16.x).

**NOTE:** If you installed Oracle Database XE for use with Siebel CRM, and you plan to uninstall or roll back Siebel Web Client or Siebel Tools, then it is recommended that you first uninstall Oracle Database XE. For more information, see “Uninstalling Oracle Database XE” on page 274.

**CAUTION:** Before you proceed with any uninstallation task, review all of the information in “About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.
This topic includes the following information:

- "Uninstalling the Siebel Web Client" on page 271
- "Rolling Back the Siebel Web Client" on page 272
- "Uninstalling Siebel Tools" on page 273
- "Rolling Back Siebel Tools" on page 273
- "Uninstalling Oracle Database XE" on page 274

### Uninstalling the Siebel Web Client

Use the following procedure to uninstall the Siebel Mobile Web Client or Developer Web Client in a full uninstallation.

**NOTE:** If you installed Oracle Database XE for use with Siebel Web Client, and you plan to uninstall Siebel Web Client, then it is recommended that you first uninstall Oracle Database XE. For more information, see "Uninstalling Oracle Database XE" on page 274.

This topic is part of "Uninstalling Siebel Web Clients or Siebel Tools" on page 270.

**To uninstall the Siebel Web Client**

1. Choose Start, All Programs, Oracle - CLIENT_HOME (or a similar Oracle home identifier), Oracle Installation Products, and then Universal Installer.
2. Click Deinstall Products.
3. Select the Oracle home (for example, CLIENT_HOME) representing the installed instance of Siebel Mobile or Developer Web Client that you want to uninstall.
4. Click Remove.

**Related Topics**

- "Installing the Siebel Web Client" on page 181
- "About Uninstalling Siebel Business Applications" on page 255
- "Uninstalling Oracle Database XE" on page 274
Rolling Back the Siebel Web Client

Use the following procedure to roll back the installed current release, Siebel CRM version 17.0, for the Siebel Mobile Web Client or Developer Web Client and revert to Siebel CRM version 8.1.1 or a prior version 8.1.1.x release, version 8.2.2 or a prior version 8.2.2.x release, version 15.0 or a prior version 15.x release, or version 16.0 or a prior version 16.x release.

In the procedure below, the example installation paths are those that might apply for previous releases that you subsequently migrated to the current release.

NOTE: If you installed Oracle Database XE for use with Siebel Web Client, and you plan to roll back Siebel Web Client, then it is recommended that you first uninstall Oracle Database XE. For more information, see “Uninstalling Oracle Database XE” on page 274.

NOTE: This topic describes only rolling back a migration installation, not rolling back a patchset installation. For patchset uninstallation (rollback), see Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

This topic is part of “Uninstalling Siebel Web Clients or Siebel Tools” on page 270.

To roll back the Siebel Web Client

1. Review all of the information in “About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.
2. Exit the Siebel Web Client if it is running.
3. Verify that the renamed original installation directory, such as Client_1_pre17.0, exists.
4. Delete the directory representing the current installation of Siebel Web Client for the current release. For example, if the directory name is Client_1, then delete this directory.
5. Rename the backup directory representing the previously installed software to use the original installation directory name for Siebel Web Client. Rename the original (renamed) directory, such as Client_1_pre17.0, to Client_1 (depending on your original installation directory name).
6. Verify the version number by using the opatch command, as described in “Verifying Installation for the Siebel Web Client” on page 247.
7. When the rollback process is complete, restart the Siebel Web Client.

Related Topics
"Installing the Siebel Web Client” on page 181
"About Uninstalling Siebel Business Applications” on page 255
"Uninstalling Oracle Database XE” on page 274
Uninstalling Siebel Tools

Use the following procedure to uninstall Siebel Tools in a full uninstallation.

**NOTE:** If you installed Oracle Database XE for use with Siebel Tools, and you plan to uninstall Siebel Tools, then it is recommended that you first uninstall Oracle Database XE. For more information, see "Uninstalling Oracle Database XE" on page 274.

This topic is part of "Uninstalling Siebel Web Clients or Siebel Tools" on page 270.

**To uninstall Siebel Tools**

1. Choose Start, All Programs, Oracle - TOOLS_HOME (or a similar Oracle home identifier), Oracle Installation Products, and then Universal Installer.
2. Click Deinstall Products.
3. Select the Oracle home (for example, TOOLS_HOME) representing the installed instance of Siebel Tools that you want to uninstall.
4. Click Remove.

**Related Topics**

"Installing Siebel Tools" on page 189
"About Uninstalling Siebel Business Applications“ on page 255
"Uninstalling Oracle Database XE” on page 274

Rolling Back Siebel Tools

Use the following procedure to roll back the installed current release, Siebel CRM version 17.0, for Siebel Tools and revert to Siebel CRM version 8.1.1 or a prior version 8.1.1.x release, version 8.2.2 or a prior version 8.2.2.x release, version 15.0 or a prior version 15.x release, or version 16.0 or a prior version 16.x release.

In the procedure below, the example installation paths are those that might apply for previous releases that you subsequently migrated to the current release.

**NOTE:** If you installed Oracle Database XE for use with Siebel Tools, and you plan to roll back Siebel Tools, then it is recommended that you first uninstall Oracle Database XE. For more information, see “Uninstalling Oracle Database XE” on page 274.

**NOTE:** This topic describes only rolling back a migration installation, not rolling back a patchset installation. For patchset uninstallation (rollback), see *Siebel Patchset Installation Guide for Siebel CRM*, 1614310.1 (Article ID) on My Oracle Support.

This topic is part of “Uninstalling Siebel Web Clients or Siebel Tools” on page 270.
Uninstalling Siebel Business Applications  Uninstalling Siebel Web Clients or Siebel Tools

To roll back Siebel Tools

1. Review all of the information in “About Uninstalling Siebel Business Applications” on page 255, particularly the requirements and limitations.

2. Exit Siebel Tools if it is running.

3. Verify that the renamed original installation directory, such as Tools_1_pre17.0, exists.

4. Delete the directory representing the current installation of Siebel Tools for the current release. For example, if the directory name is Tools_1, then delete this directory.

5. Rename the backup directory representing the previously installed software to use the original installation directory name for Siebel Tools. Rename the original (renamed) directory, such as Tools_1_pre17.0, to Client (depending on your original installation directory name).

6. Verify the version number by using the opatch command, as described in “Verifying Installation for Siebel Tools” on page 243.

7. When the rollback process is complete, restart Siebel Tools.

Related Topics
“Installing Siebel Tools” on page 189
“About Uninstalling Siebel Business Applications” on page 255
“Uninstalling Oracle Database XE” on page 274

Uninstalling Oracle Database XE

Use the following procedure to uninstall Oracle Database XE. You can use this procedure if you previously installed Oracle Database XE and the local database with Siebel Tools, or installed Oracle Database XE and the local database or sample database with Siebel Web Client. Uninstalling Oracle Database XE also uninstalls the local database or the sample database.

It is recommended that you uninstall Oracle Database XE if you installed it for use with Siebel Tools or Siebel Mobile Web Client but then determine that you will not use it. For example, you would uninstall Oracle Database XE if you uninstall Siebel Innovation Pack 2017 (version 17.0) and roll back to Siebel Innovation Pack 2015 (version 15.0). Uninstall Oracle Database XE before you uninstall or roll back Siebel Tools or Siebel Web Client. For patchset uninstallation (rollback), see Siebel Patchset Installation Guide for Siebel CRM, 1614310.1 (Article ID) on My Oracle Support.

NOTE: When you uninstall Siebel Tools or Siebel Web Client, in a full installation or rollback uninstallation (including rollback of a patchset release), Oracle Database XE and the local database or the sample database are not uninstalled. In addition, the ODBC data source created for Oracle Database XE is not deleted in these uninstallation cases.

As an alternative to the procedure below, you can use one of the following methods:

■ Uninstall Oracle Database Express Edition from the Windows Control Panel.
■ Uninstall Oracle Database Express Edition from Programs and Features.

After uninstalling Oracle Database XE, restart the computer.
To uninstall Oracle Database XE and the local database or sample database

1. In Windows Explorer, navigate to the Siebel image location for the Siebel release from which you installed Oracle Database XE with Siebel Tools or Siebel Web Client. Then navigate to the directory where the Oracle Database XE installer is located.

Navigate to one of the following locations, based on the Siebel software for which you are uninstalling Oracle Database XE:

- Siebel_Image\Windows\Client\Siebel_Tools\Disk1\stage\XE\64\Disk1
- Siebel_Image\Windows\Client\Siebel_Web_Client\Disk1\stage\XE\64\Disk1

In this path, Siebel_Image is the directory for your version-specific Siebel network image, such as C:\Siebel_Install_Image\17.0.0.0, for Siebel Innovation Pack 2017.

2. To start the Oracle Database XE installer, double-click setup.exe.

3. Click Remove.

4. After uninstalling Oracle Database XE, restart the computer.

5. Delete the directory SI EBEL_CLIENT_ROOT\oraclexe or SI EBEL_TOOLS_ROOT\oraclexe.

Related Topics
"Installing and Using Oracle Database XE for the Local or Sample Database" on page 195
"Uninstalling the Siebel Web Client" on page 271
"Rolling Back the Siebel Web Client" on page 272
"Uninstalling Siebel Tools" on page 273
"Rolling Back Siebel Tools" on page 273

About Uninstalling Earlier Versions of Siebel Business Applications

To uninstall an earlier version of Siebel Business Applications software, you must use the documented uninstallation method for that version, as follows. For each version, always use the latest revision of the documentation that applies for the Siebel CRM version that you are uninstalling.

For Siebel CRM version 16.x

For the full uninstallation or rollback uninstallation instructions for Siebel CRM version 16.x (Siebel Innovation Pack 2016), see that version of the Siebel Installation Guide for the operating system you are using, which is the guide that you used when you installed Siebel CRM version 16.0. The most recent applicable guides, including those for this release, are available on My Oracle Support, at 1461732.1 (Article ID).
**Uninstalling Siebel Business Applications**

About Uninstalling Earlier Versions of Siebel Business Applications

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**For Siebel CRM version 15.x**

- For the full uninstallation or rollback uninstallation instructions for Siebel CRM version 15.x (Siebel Innovation Pack 2015), see that version of the *Siebel Installation Guide* for the operating system you are using, which is the guide that you used when you installed Siebel CRM version 15.0. The most recent applicable guides, including those for this release, are available on My Oracle Support, at 1461732.1 (Article ID).

**For Siebel CRM version 8.1.1.14 or 8.1.1.11**

- For the full uninstallation or rollback uninstallation instructions for Siebel CRM version 8.1.1.14 (Siebel Innovation Pack 2014) or version 8.1.1.11 (Siebel Innovation Pack 2013), see the version of the *Siebel Installation Guide* for the operating system you are using, which is the guide that you used when you installed Siebel CRM version 8.1.1.14 or 8.1.1.11. The most recent applicable guides, including those for these releases, are available on My Oracle Support, at 1461732.1 (Article ID).

**For Siebel CRM version 8.1.1 and version 8.1.1.x (through version 8.1.1.10)**

- For the full uninstallation instructions for Siebel CRM version 8.1.1, which used the InstallShield versions of the Siebel Enterprise Server and Siebel Web Server Extension (SWSE) installers, see the version of the *Siebel Installation Guide* for the operating system you are using, which is the guide that you used when you initially installed. The most recent applicable guides that cover the InstallShield installers, version 8.1, Rev. A, are available on My Oracle Support, at 1461732.1 (Article ID).

- For the full uninstallation instructions for Siebel CRM version 8.1.1.8 through version 8.1.1.10 (when Siebel Enterprise Server and SWSE were installed as a new installation), see the version of the *Siebel Installation Guide* for the operating system you are using, which is the guide that you used when you initially installed. The most recent applicable guides, version 8.1, Rev. D, are available on My Oracle Support, at 1461732.1 (Article ID).

- For the Siebel Fix Pack uninstallation instructions for Siebel CRM version 8.1.1.x Fix Pack releases through Siebel CRM version 8.1.1.10 (when Siebel Enterprise Server and SWSE were installed as a patch installation), see the applicable *Siebel Maintenance Release Guide* on My Oracle Support, 880452.1 (Article ID). Different uninstallation options apply for different Siebel Fix Pack releases. In particular, uninstallation options are different for Siebel CRM versions 8.1.1.8 and later, compared to Siebel CRM versions 8.1.1.1 through 8.1.1.7.

**For Siebel CRM version 8.2.2.14 and version 8.2.2.4**

- For the full uninstallation or rollback uninstallation instructions for Siebel CRM version 8.2.2.14 (Siebel Innovation Pack 2014) or version 8.2.2.4 (Siebel Innovation Pack 2013), see the version of the *Siebel Installation Guide* for the operating system you are using, which is the guide that you used when you installed Siebel CRM version 8.2.2.14 or 8.2.2.4. The most recent applicable guides, including those for these releases, are available on My Oracle Support, at 1461732.1 (Article ID).
Uninstalling Siebel Business Applications

About Uninstalling Earlier Versions of Siebel Business Applications

For Siebel CRM version 8.2.2 and version 8.2.2.x (through version 8.2.2.3)
- For the full uninstallation instructions for Siebel CRM version 8.2.2, see the version of the Siebel Installation Guide for the operating system you are using, which is the guide that you used when you initially installed. The most recent applicable guides, version 8.2, Rev. C, are available on My Oracle Support, at 1461732.1 (Article ID).
- For the Siebel Fix Pack uninstallation instructions for Siebel CRM version 8.2.2.x Fix Pack releases through version 8.2.2.3, see the applicable Siebel Maintenance Release Guide on My Oracle Support, 1441523.1 (Article ID).

ForSiebel CRM versions 8.0, 7.8.x, or 7.7.x
- For the uninstallation instructions for Siebel CRM version 8.0, 7.8.x, or 7.7.x, see version 8.0, 7.8, or 7.7 of the Siebel Installation Guide for the operating system you are using.

For Siebel CRM versions 7.5.x, 7.0.x, or 6.x.x
- For the uninstallation instructions for Siebel CRM versions 7.5.x, 7.0.x, or 6.x.x, see the applicable version of the Siebel Server Installation Guide for your operating system. See also Siebel Web Client Administration Guide, Siebel Tools Reference, or other applicable documents for these earlier versions.

Related Topics
“Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163
“About Uninstalling Siebel Business Applications” on page 255

Related Books
Earlier versions of the Siebel Installation Guides on My Oracle Support, 1461732.1 (Article ID)
This chapter documents requirements that apply to installing and configuring Siebel Business Applications software. It contains the following topics:

- About Installing Siebel Business Applications on page 279
- Planning Your Siebel Deployment on page 283
- Requirements for Installing and Configuring Siebel Enterprise Server Components on page 305
- Requirements for Installing and Configuring the Siebel Application Interface on page 314
- Requirements for Installing and Configuring the Siebel Database on page 319
- Requirements for Installing Siebel Web Clients on page 321
- Requirements for Installing Siebel Tools on page 324

### About Installing Siebel Business Applications

Each Siebel Business Applications software release from Oracle has a specific version level. The current release is Siebel Innovation Pack 2017, which refers to Siebel CRM version 17.0.

You can install Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, or Siebel Tools at one of these versions, whether it is a new installation or a migration installation.

This topic contains the following information:

- “About Documented Requirements” on page 280
- “About Siebel CRM Releases” on page 280
- “About Installing in Upgrade Environments” on page 282
- “About Language Installation” on page 283

**Related Topics**

- Chapter 3, “Installing Siebel Business Applications Server Modules”
- Chapter 7, “Installing Siebel Web Clients and Siebel Tools”
- Chapter 9, “Uninstalling Siebel Business Applications”
About Documented Requirements

Before installing any Siebel release, observe all of the documented requirements and review documented installation tasks. See this guide or any updated version of it, the Certifications tab on My Oracle Support, and any other relevant documents on Oracle Help Center, Oracle Technology Network, or My Oracle Support. Documentation for each Siebel Patchset release is provided with the Siebel Patchset.

**NOTE:** All Siebel modules used within a given Siebel Enterprise must share the same release level (version number), such as Siebel CRM version 17.0, 17.1, and so on. Third-party products must use supported release levels as documented in the Certifications tab on My Oracle Support.

Examples of installation requirements follow:

- Before installing a Siebel Innovation Pack release for Siebel Enterprise Server (migration installation case), you must shut down services for Siebel Server or Siebel Gateway Name Server, and shut down any running instances of srvrmgr. For *Siebel Installation Guides* for prior releases, see My Oracle Support, at 1461732.1 (Article ID).

- Before installing a Siebel Innovation Pack release for Siebel Application Interface (migration installation case), you must stop the Web server used for the previously installed release. For *Siebel Installation Guides* for prior releases, see My Oracle Support, at 1461732.1 (Article ID).

About Siebel CRM Releases

Siebel CRM software releases and their various installation methods have evolved significantly. New types of releases are provide, and some of the traditional types of releases no longer apply. The current release is Siebel CRM version 17.0 (Siebel Innovation Pack 2017). This book describes the tasks and requirements that apply for the current release.

An innovation pack release always includes new application functionality. In a limited sense, an innovation pack release could be considered a patch release, because, although you can install the release as a new installation, you can also install it to update an existing installation, in the migration installation case. (Siebel Fix Pack releases are no longer provided.)

This guide, the *Siebel Installation Guide* for the operating system you are using, is for installing the current release. The *Siebel Installation Guides* describe how to perform both new installations and migration installations.

You install Siebel Gateway, Siebel Server, Database Configuration Utilities, Siebel Application Interface, Siebel Web Client, or Siebel Tools as a new installation of the current version of the software or as a migration installation. For more information, see “Installation-Related Changes for Siebel Innovation Pack 2017” on page 21 and related topics.

**NOTE:** For an existing installation, running Incremental Repository Merge is required after performing a migration installation for Siebel Innovation Pack 2017. For more information, see “About Database Updates for the Current Release” on page 129. Other requirements apply. See also “Additional Tasks for Migration Installations” on page 57.
Table 20 on page 281 lists the major Siebel CRM installable modules for Siebel CRM version 17.0 and shows which installation methods are supported in order to install the current release. Both new installations and migration installations use the same installers.

### Table 20. Siebel CRM Installers and Applicable Versions

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Siebel Gateway</td>
<td>■ New installation, as described in &quot;Installing Siebel Business Applications in a New Installation&quot; on page 44</td>
</tr>
<tr>
<td>Siebel Server</td>
<td>■ Migration installation, as described in &quot;Installing Siebel Business Applications in a Migration Installation&quot; on page 49</td>
</tr>
<tr>
<td>Database Configuration Utilities</td>
<td></td>
</tr>
<tr>
<td>EAI Connector</td>
<td></td>
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<tr>
<td>Siebel Application Interface</td>
<td></td>
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<tr>
<td>Siebel Enterprise Cache</td>
<td>■ New installation (only), as described in &quot;Installing Siebel Business Applications in a New Installation&quot; on page 44</td>
</tr>
<tr>
<td>Siebel Constraint Engine</td>
<td></td>
</tr>
<tr>
<td>Siebel Web Client</td>
<td>■ New installation, as described in &quot;Installing the Siebel Web Client as a New Installation&quot; on page 182</td>
</tr>
<tr>
<td></td>
<td>■ Migration installation, as described in &quot;Installing the Siebel Web Client as a Migration Installation&quot; on page 186</td>
</tr>
<tr>
<td>Siebel Tools</td>
<td>■ New installation, as described in &quot;Installing Siebel Tools as a New Installation&quot; on page 189</td>
</tr>
<tr>
<td></td>
<td>■ Migration installation, as described in &quot;Installing Siebel Tools as a Migration Installation&quot; on page 193</td>
</tr>
</tbody>
</table>

Siebel Patchset releases are provided for the current Siebel Innovation Pack release, each of which provides several fixes. The fixes are provided on a cumulative basis in each Siebel Patchset release. In some cases, installing a particular Siebel Patchset release might be required or strongly recommended. In general, this guide does not provide details about installing or uninstalling Siebel Patchset releases. The information in this guide complements the existing documentation for installing the applicable Siebel Patchset release.

Typically, no additional Siebel application configuration tasks are associated with a migration installation. You would not have to run the Siebel Management Console (successor to Siebel Configuration Wizards) to configure a module that was already configured. However, requirements vary for different release, or for using particular functionality. In some cases, for example, you might need to reconfigure a server module after doing a migration installation. In Siebel CRM version 17.0, you must configure the Siebel Application Interface after performing migration installations.

**NOTE:** You must verify the availability, characteristics, and requirements of any future releases, including any Siebel CRM version 17.x releases, that might also be covered by this guide (or updated versions of it) or by other documentation. The installation tasks and requirements for all future releases are subject to change.
About Installing in Upgrade Environments

This topic is part of “About Installing Siebel Business Applications” on page 279.

When you install Siebel Business Applications, you might be creating a new deployment or you might be installing updated software to be used in a deployment that is being upgraded from a previous release of Siebel Business Applications, such as an upgrade from version 8.0 to the current version. A deployment that is being upgraded is sometimes called an upgrade environment. You install your new Siebel Business Applications software before upgrading the Siebel database.

In some cases, you can upgrade the Siebel database directly to the current release. For detailed information about upgrading the Siebel database, and about tasks that you perform before the installation or upgrade, see Siebel Database Upgrade Guide. See also any relevant documents on Oracle Technology Network or My Oracle Support.

NOTE: Review all of the applicable documentation before you install or upgrade.

For IBM DB2 for z/OS, see relevant parts of “Planning RDBMS Installation and Configuration” on page 286 and see Siebel Database Upgrade Guide for DB2 for z/OS.

CAUTION: As part of installing Siebel Business Applications software in an upgrade environment, in general, you do not perform any database-related tasks described in this guide.

In an upgrade environment:

- You do install the Siebel Enterprise Server component called Database Configuration Utilities on a Siebel Server, as described in Chapter 3, “Installing Siebel Business Applications Server Modules.”

- You do not create the database instance on the RDBMS, as described in Chapter 11, “Configuring the RDBMS.” (After the upgrade is complete, you might have to modify database parameters for your RDBMS platform to match settings described in that chapter.)

- You do not perform the tasks described in Chapter 5, “Installing the Siebel Database on the RDBMS.”

- Certain installation and configuration requirements associated with authentication for using Siebel Gateway and Siebel Management Console that apply for new deployments do not apply in this case. For details, see “Requirements for Siebel Gateway Authentication” on page 308.

For more information about how to use this guide in an upgrade installation case, see “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36.
After installing and upgrading, you might have to perform additional tasks. Some tasks that might apply are described in Siebel Application Deployment Manager Guide, Siebel System Administration Guide, or Siebel Database Upgrade Guide.

In Siebel CRM 17.0, the new Siebel Migration application, a Web-based tool for migrating Siebel Repositories and seed data and performing related tasks, is provided with the Siebel Application Interface installation. The Siebel Management Console includes tasks for configuring the Siebel Migration application. Siebel Database Upgrade Guide describes the new Siebel Migration application. See also "Preparing to Run Siebel Server Components" on page 158.

When you install Siebel Business Applications in some upgrade scenarios, you might in some cases be able to install different versions of a Siebel module on the same computer or operating system instance, if this scenario is valid for particular modules and might be helpful to you. For more information, see "Planning to Install Multiple Instances of Siebel Business Applications" on page 289.

After you install the current release, you can install the latest Siebel Patchset release, where available. Install the Siebel Patchset release before you initiate the upgrade process. After upgrading, you can install additional patchset releases as they become available.

**CAUTION:** Do not install any additional patchset release until the upgrade is complete.

For information about types of Siebel CRM releases, see "About Siebel CRM Releases" on page 280. Instructions in this guide apply both for new installations and upgrades, except where noted.

### About Language Installation

This topic is part of "About Installing Siebel Business Applications" on page 279.

It is strongly recommended that you install and deploy, or at least install, all of the languages that you expect to require. For more information about installing and deploying languages, see "Installing and Deploying Siebel Business Applications with Multiple Languages" on page 163.

### Planning Your Siebel Deployment

You must plan where to install the various Siebel components on your servers. This topic contains the following information:

- "Preparing the Hardware and Planning Topologies" on page 284
- "Planning Disk Space and Configuration Requirements" on page 285
- "Planning RDBMS Installation and Configuration" on page 286
- "Managing Temporary Disk Space Required by Siebel Installers and Wizards" on page 288
- "About The Language in Which Siebel Installers and Wizards Run" on page 289
- "Planning to Install Multiple Instances of Siebel Business Applications" on page 289
- "Specifying the Locale for Siebel Business Applications" on page 291
- "Specifying the Locale for Your UNIX Operating System" on page 292
Preparing the Hardware and Planning Topologies

This topic is part of “Planning Your Siebel Deployment” on page 283.

Verify that the hardware that you have chosen meets all of the requirements for running your Siebel Business Applications as well as the required third-party software. Verify also that the hardware is able to support the RDBMS and the Siebel database, the Siebel File System, Siebel Gateway, Siebel Server, Siebel Application Interface, and other Siebel modules. Also plan to support Siebel Tools developer workstation computers and Siebel Mobile Web Client computers, where applicable, as well as mobile devices if you are deploying Siebel Mobile applications.

Consider running specialized components on dedicated computers. Whether you do so depends on considerations that include available resources, overall load, performance, security, and so on.

In general, it is assumed that, for security purposes, your computer resources are not shared between Siebel CRM and other applications or systems that are not related to supporting your Siebel CRM deployment.

Record the computer names and installation directory names that you decide on in your copy of the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.”

Related Topics
“Planning to Install Multiple Instances of Siebel Business Applications” on page 289
“Restrictions on Host Names for Siebel Gateway and Siebel Server” on page 295
“Restrictions on Names for Siebel Enterprise and Siebel Server” on page 296
“File and Directory Naming Conventions” on page 297
“Creating the Siebel File System” on page 298
“About the Siebel Application Interface” on page 315
“Planning the Siebel Application Interface Topology” on page 315

Related Books
Siebel Deployment Planning Guide
Siebel Performance Tuning Guide
Planning Disk Space and Configuration Requirements

This topic is part of “Planning Your Siebel Deployment” on page 283.

Before you install, you must anticipate your disk space requirements for each installable Siebel module. Each Siebel installer displays the required disk space for the installed software before files are copied. Also anticipate the disk space required for Siebel image directories. For more information, see Chapter 12, "Creating the Siebel Installation Image on the Network."

Siebel installers also have temporary disk space requirements, as described in "Managing Temporary Disk Space Required by Siebel Installers and Wizards" on page 288.

The Siebel CRM architecture is designed to scale across multiple application server computers to meet the needs of large, complex deployments. For assistance in capacity planning and sizing hardware platforms for Siebel Enterprise Server, contact your Oracle sales representative or Oracle Advanced Customer Services to request assistance from Oracle’s Application Expert Services.

The number of server computers, the CPU resources, and the memory resources required for operating Siebel Business Applications increases with the number and types of users and the deployed Siebel CRM modules.

In addition to the disk space required for installation, computers operating Siebel Remote components require 15 MB of usable disk space for each mobile user. Oracle recommends using high-performance and high-availability storage solutions, as appropriate, for deployments of Siebel Business Applications, particularly for high-capacity deployments. Oracle also recommends using high-performance disks or fault-tolerant disk arrays for all server computers, Siebel File System servers, and database servers.

Hardware or software high-availability disk configurations are critical for Siebel Remote servers, Siebel File System servers, and database servers. It is recommended that you configure other Siebel Server computers, Siebel Application Interface computers, and other components to use hardware or software RAID level 1 or comparable configurations.

High-availability solutions, such as clustering, are also recommended on critical components and can be used in conjunction with applicable high-availability storage solutions. Clustering is critical for high availability of the Siebel Gateway, Siebel Remote servers, and the database server. Clustering is also recommended for any Siebel Server computer that is not load-balanced.

Customers are responsible for making sure that clustering is supported on each server component and that the Siebel Server hardware operates with the supported server operating systems and clustering solutions. For supported operating systems, see the Certifications tab on My Oracle Support. For more information, see 1492194.1 (Article ID) on My Oracle Support.

For more information about some of these recommendations, see Siebel Deployment Planning Guide. See also Siebel Performance Tuning Guide.
Planning RDBMS Installation and Configuration

This topic is part of “Planning Your Siebel Deployment” on page 283.

Note the following guidelines for installing and configuring the Relational Database Management System (RDBMS) on which you will create the Siebel database.

For more information about configuring the RDBMS, see Chapter 11, “Configuring the RDBMS.” For more information about configuring the Siebel database after installing Siebel Enterprise Server, see Chapter 5, “Installing the Siebel Database on the RDBMS.”

- Make sure that this release of Siebel Business Applications supports the exact version of your chosen RDBMS, as specified in the Certifications tab on My Oracle Support, and that the RDBMS has been installed on its designated server. This database server will hold the database tables containing your business data, such as sales (personnel, territories, opportunities, and activities), marketing, and customer service information. It will also contain Siebel repository tables, which are used both for developing and for operating Siebel Business Applications.

- Verify that the network name of the server that will support the Siebel database is properly recorded in your copy of the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.”

- Installing the Siebel database, as described in “Installing the Siebel Database” on page 136, creates a ODBC data source name, which might be needed to provide authentication for the Siebel Management Console configuration process, as described in Chapter 4, “Configuring Siebel Business Applications Server Modules.”

- When you configure the Siebel Enterprise, the Siebel Management Console creates the ODBC data source name, using the name EnterpriseName_DSN. For example, if your Siebel Enterprise name is sieb17, then the ODBC data source name will be sieb17_DSN. If a data source using this name exists, then it is overwritten. Using this pattern, determine what your ODBC data source name will be and record it in your copy of the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.”

**NOTE:** In most cases, do not change any of the default ODBC settings or parameters. Otherwise, you will encounter problems using the ODBC. For example, setting OptimizeLongPerformance to enable corrupts all of the scripts in the Siebel Repository during import or export processes. For information about verifying the ODBC data source for your RDBMS platform, see “Verifying the ODBC Data Source” on page 235. See also “Troubleshooting the ODBC Data Source Connection” on page 238.

Siebel Web Client and Siebel Tools installers also create ODBC data source names during the installation. The naming convention is different than ODBC data source names created by the Siebel Management Console. For more information, see Chapter 7, “Installing Siebel Web Clients and Siebel Tools.”

About Database Code Pages and Locale Support

In a database environment that is enabled for Unicode, you can install any of the available Siebel language packs.
In a database environment that is not enabled for Unicode, however, you must consider the
 correlation of the language packs that you want to install and the characters supported by your
database code page. For example, in a Western European code page database, you can only install
Western European language packs, such as U.S. English, French, Spanish, or German language
packs. In a Japanese code page database, you can only install Japanese or U.S. English language
packs. The installed languages and the code page of the operating system on which your Siebel
Server runs must match those of your Siebel database instance.

**Related Topics**

“Specifying the Locale for Siebel Business Applications” on page 291
“Specifying the Locale for Your UNIX Operating System” on page 292
Chapter 11, “Configuring the RDBMS”

**Related Books**

*Siebel Global Deployment Guide*
Certifications tab on My Oracle Support
For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1
(Article ID) on My Oracle Support.

**Planning Database Connectivity**

Use the ODBC driver versions listed in the Certifications tab on My Oracle Support for your chosen
RDBMS for Siebel Servers, Siebel Tools, and Siebel Developer Web Clients (if applicable). Make sure
that ODBC connectivity uses TCP/IP as the transport layer protocol for Siebel Servers, Siebel Tools,
and Siebel Developer Web Clients.

**How to Use This Guide If Your Database Is IBM DB2 for z/OS**

This guide describes installation of Siebel modules for each supported RDBMS, with the exception of
IBM DB2 for z/OS. (This database product was formerly referred to in some *Siebel Bookshelf*
documentation as *IBM DB2 UDB for z/OS and OS/390.*) The *Siebel Bookshelf* is available on Oracle
Technology Network (OTN) and Oracle Software Delivery Cloud. It might also be installed locally on
your intranet or on a network location.

Customers for IBM DB2 for z/OS require this guide (*Siebel Installation Guide* for the operating
system you are using) and *Implementing Siebel Business Applications on DB2 for z/OS*. Both of these
guides are available on the *Siebel Bookshelf*.

**NOTE:** In this guide, Chapter 11, “Configuring the RDBMS,” and Chapter 5, “Installing the Siebel
Database on the RDBMS,” do not apply to customers using DB2 for z/OS. Instead, see *Implementing
Siebel Business Applications on DB2 for z/OS* for database-related content. If you are upgrading on
this platform, then see also *Siebel Database Upgrade Guide for DB2 for z/OS*. For information about
relevant requirements related to authentication for the Siebel Gateway, see “Requirements for Siebel
Gateway Authentication” on page 308.
Implementing Siebel Business Applications on DB2 for z/OS includes, but is not limited to, topics such as special security issues for this RDBMS, installing the Siebel schema, performance guidelines for use of this RDBMS with Siebel Business Applications, and specific procedures for moving data from development to production. Also consult all of the other applicable Siebel Bookshelf documentation, such as Siebel Security Guide.

Managing Temporary Disk Space Required by Siebel Installers and Wizards

This topic is part of “Planning Your Siebel Deployment” on page 283.

Siebel installer programs, the Siebel Image Creator utility, and other programs all require the use of temporary disk space while operating. Disk space required varies by operating system. The location of temporary directories is specified using the TEMP and TMP environment variables. Set these variables the same: to a valid existing directory that contains adequate space.

It is recommended that you periodically clear out the temporary directory that you are using. You might have to do this as part of resolving installer or wizard problems.

On Microsoft Windows, the temporary directory used by default is `C:\Documents and Settings\username\Local Settings\Temp`.

The minimum disk space figures provided in this topic are general guidelines only. The specific amount of temporary disk space needed by a particular installation operation varies. If there is insufficient disk space, then the installer will notify you that more disk space is needed.

The user running the installer or wizard must have privileges that include write permission for the temporary directory.

Table 21 shows the minimum disk space required by Siebel installers and wizards (by operating system), along with the default temporary directory locations.

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Minimum Required Space</th>
<th>Default Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>65 to 100 MB</td>
<td>System drive (usually C:)</td>
</tr>
<tr>
<td>AIX</td>
<td>200 MB</td>
<td>/tmp</td>
</tr>
<tr>
<td>HP-UX</td>
<td>240 MB</td>
<td>/var/tmp</td>
</tr>
<tr>
<td>Linux</td>
<td>200 MB</td>
<td>Home directory for user</td>
</tr>
<tr>
<td>Oracle Solaris</td>
<td>115 MB</td>
<td>/var/tmp</td>
</tr>
</tbody>
</table>
About The Language in Which Siebel Installers and Wizards Run

This topic is part of “Planning Your Siebel Deployment” on page 283.

When you start Siebel installer programs, the Siebel Image Creator utility, or the Siebel Database Configuration Wizard, the language in which the program runs (the user interface text) is determined by the language for the locale of your operating system, where this language and locale are supported for the current version of Siebel Business Applications and for the installer, utility, or wizard.

Installers for Siebel CRM server modules and client modules are based on Oracle Universal Installer and run in the current language corresponding to the regional and language options settings on the server or client computer, where the current language is one of the following: U.S. English, French, German, Italian, Brazilian Portuguese, Spanish, Japanese, Korean, Chinese Simplified, or Chinese Traditional. For any other current language setting, the installer runs in U.S. English.

Siebel Image Creator and the Siebel Database Configuration Wizard also use the current language corresponding to the regional and language options setting. The programs can run in all of the languages corresponding to the available Siebel language packs, except Arabic, Hebrew, Polish, Russian, Thai, or Turkish. If the current language is one of these or any language not supported for Siebel Business Applications, then the program runs in U.S. English.

For the Siebel installers, Database Configuration Wizard, and Siebel Image Creator, in order to change the user interface language, you must change the current operating system language and locale. Make sure that the locale of your operating system is set to the desired choice of your language. The language that you select must be one of those supported for Siebel Business Applications, as described earlier.

NOTE: If a supported locale that you intend to use does not exist on the supported operating system, then use another existing supported locale, so that you can proceed with installation and initial configuration in a familiar language; for example, DE_DE.UTF-8 for German (on AIX), en_US.UTF-8 for U.S. English (on Oracle Solaris), and so on. For a list of supported locales for your UNIX operating system, see “Specifying the Locale for Your UNIX Operating System” on page 292.

For information about installing language packs for Siebel Business Applications, see the applicable installation task topic and see “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

Planning to Install Multiple Instances of Siebel Business Applications

This topic is part of “Planning Your Siebel Deployment” on page 283.

This topic describes issues in installing multiple instances of similar or dissimilar versions of Siebel Business Applications on the same computer or operating system instance.
Installing Multiple Instances of Similar Versions of Siebel Business Applications

By default, the Siebel installers automatically install Siebel Business Applications software in directories with unique names that will not conflict with other Siebel modules that you install on the same computer or operating system instance. To install another instance of the same version of a module on a single computer or operating system instance (where applicable), specify a custom installation path.

However, installing multiple instances of some modules might cause problems. For example:

- You cannot install multiple instances of the same version of Siebel Gateway on the same computer or operating system instance.
- You must take care to avoid conflicts in port number usage whenever you install or configure multiple Siebel components or multiple instances on the same computer or operating system instance. You specify multiple port numbers when you install and configure Siebel components.
- Restrictions apply for installing multiple instances of Siebel Application Interface. You must install them in different locations and assign unique port numbers for the application containers. For details, see “Requirements for Installing and Configuring the Siebel Application Interface” on page 314.

For important related considerations, see also “About Installing Siebel Business Applications” on page 279 and “Preparing the Hardware and Planning Topologies” on page 284.

**NOTE:** In this context, *same version* refers to multiple installations of the current release, Siebel Innovation Pack 2017.

All Siebel Enterprise Server components that you install together on the same computer or operating system instance are installed into the same root directory (such as C:\Siebel on Microsoft Windows or /Siebel on UNIX), except in the case described in the note that follows. These components include Siebel Gateway, Siebel Server, Database Configuration Utilities, EAI Connector, and Siebel Enterprise Cache. Restrictions and guidelines apply to collocating Siebel components, as noted in “About Installing Siebel Business Applications” on page 279. See also “File and Directory Naming Conventions” on page 297.

As an example of restrictions for collocating Siebel components, you must install Siebel Application Interface in a different directory (such as C:\Siebel\AI on Microsoft Windows or /Siebel\AI on UNIX) than other Siebel components, or on a different computer or operating system instance.

**NOTE:** If you have already installed Siebel Enterprise Server for the current release, and you require additional Siebel Enterprise Server components (for example, Siebel Gateway is already installed and you want to install a Siebel Server), then you can install a new instance, with the modules you require, in a different directory or on a different computer or operating system instance. (Then install the latest Siebel Patchset release for all of the applicable installed instances.) For more information about options in this situation, see “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306.

Installing Multiple Instances of Dissimilar Versions of Siebel Business Applications

Multiple versions of Siebel components can be installed on the same computer or operating system instance. Sometimes you might have to do this as part of some upgrade scenarios.
If you install multiple versions of Siebel Gateway on the same computer or operating system instance, then you must install them in different directories and assign unique port numbers for the application containers.

If you install multiple versions of Siebel Server on the same computer or operating system instance, then you must install them in different directories and assign unique port numbers for the application containers.

Multiple instances of dissimilar versions of Siebel Application Interface do not apply in the current release, because it is the first release for this module.

Related Topics
Chapter 3, “Installing Siebel Business Applications Server Modules”
“Requirements for Installing and Configuring the Siebel Application Interface” on page 314

Related Books
Siebel Database Upgrade Guide

Specifying the Locale for Siebel Business Applications

This topic is part of “Planning Your Siebel Deployment” on page 283.

When a Siebel application component (Siebel Server, Siebel Tools, or Siebel Developer Web Client) opens a connection to the Siebel database, the locale is automatically determined on a per-session basis for the connection. This setting overrides settings that might be defined elsewhere.

Do not explicitly set the NLS_LANG (Oracle-specific), LANG, or SIEBEL_CODEPAGE environment variables for Siebel Business Applications. Siebel environment setup files such as siebenv.csh (for C shell) or siebenv.sh (for Bourne or Korn shell) might set these variables, but these settings are not used for the database connection. The settings in the siebenv.csh or siebenv.sh files affect any software that runs in the Siebel environment controlled by those files (except for Siebel Business Applications).

For deployments using Oracle Database, the NLS_LANG variable determines default behaviors that can be overridden using other variables, such as NLS_SORT, that are not set automatically for Siebel Business Applications using an Oracle Database connection. Therefore, settings that you make for NLS_SORT will affect any software that runs in the Siebel environment (including Siebel Business Applications).

**CAUTION:** For development environments, Siebel Business Applications support only binary sort order. Therefore, for Oracle Database, when you are setting the locale for your development environment, either do not set NLS_SORT at all, or set it to **BINARY**. In production environments, this restriction does not apply. (In this guide, *sort order* and *collation sequence* are used interchangeably, even though these terms might not always mean the same thing.)

You can explicitly set the locale to be used by a Siebel Server or Application Object Manager component by setting the Locale Code parameter.
### Specifying the Locale for Your UNIX Operating System

To successfully run Siebel Business Applications on UNIX, you must configure the appropriate locales on your operating system for the language that you will run the applications in. In some cases, you might have to install additional content on your system in order to support the locale.

For LANG or LC_ALL settings on different UNIX operating systems for supported languages or locales, see Table 22 on page 292.

**NOTE:** The setting of the LANG environment variable does not affect database connections for Application Object Manager components for Siebel Business Applications. However, it does affect database connections used by other Siebel components.

#### Table 22. LANG or LC_ALL Parameter Settings for Supported Languages or Locales

<table>
<thead>
<tr>
<th>Language or Locale</th>
<th>LANG or LC_ALL Parameter Setting for Each Supported UNIX Operating System</th>
<th>AIX</th>
<th>HP-UX or Linux</th>
<th>Oracle Solaris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic (Saudi Arabia) ARA</td>
<td>AR_SA.UTF-8 ar_SA.utf8 ar_SA.UTF-8</td>
<td>AR_SA.UTF-8</td>
<td>ar_SA.utf8</td>
<td>ar_SA.UTF-8</td>
</tr>
<tr>
<td>Chinese (Simplified) CHS</td>
<td>ZH_CN.UTF-8 zh_CN.utf8 zh_CN.UTF-8</td>
<td>ZH_CN.UTF-8</td>
<td>zh_CN.utf8</td>
<td>zh_CN.UTF-8</td>
</tr>
<tr>
<td>Chinese (Traditional) CHT</td>
<td>ZH_TW.UTF-8 zh_TW.utf8 zh_TW.UTF-8</td>
<td>ZH_TW.UTF-8</td>
<td>zh_TW.utf8</td>
<td>zh_TW.UTF-8</td>
</tr>
<tr>
<td>Czech CSY</td>
<td>CS_CZ.UTF-8 cs_CZ.utf8 cs_CZ.UTF-8</td>
<td>CS_CZ.UTF-8</td>
<td>cs_CZ.utf8</td>
<td>cs_CZ.UTF-8</td>
</tr>
<tr>
<td>Danish DAN</td>
<td>DA_DK.UTF-8 da_DK.utf8 da_DK.UTF-8</td>
<td>DA_DK.UTF-8</td>
<td>da_DK.utf8</td>
<td>da_DK.UTF-8</td>
</tr>
<tr>
<td>Dutch NLD</td>
<td>NL_NL.UTF-8 nl_NL.utf8 nl_NL.UTF-8</td>
<td>NL_NL.UTF-8</td>
<td>nl_NL.utf8</td>
<td>nl_NL.UTF-8</td>
</tr>
</tbody>
</table>
Table 22. LANG or LC_ALL Parameter Settings for Supported Languages or Locales

<table>
<thead>
<tr>
<th>Language or Locale</th>
<th>LANG or LC_ALL Parameter Setting for Each Supported UNIX Operating System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AIX</td>
</tr>
<tr>
<td>English (United States) ENU</td>
<td>EN_US.UTF-8</td>
</tr>
<tr>
<td>Finnish FIN</td>
<td>FI_FI.UTF-8</td>
</tr>
<tr>
<td>French (France) FRA</td>
<td>FR_FR.UTF-8</td>
</tr>
<tr>
<td>German (Germany) DEU</td>
<td>DE_DE.UTF-8</td>
</tr>
<tr>
<td>Hebrew HEB</td>
<td>IW_IL.UTF-8</td>
</tr>
<tr>
<td>Italian ITA</td>
<td>IT_IT.UTF-8</td>
</tr>
<tr>
<td>Japanese JPN</td>
<td>JA_JP.UTF-8</td>
</tr>
<tr>
<td>Korean KOR</td>
<td>KO_KR.UTF-8</td>
</tr>
<tr>
<td>Polish PLK</td>
<td>PL_PL.UTF-8</td>
</tr>
<tr>
<td>Portuguese (Brazil) PTB</td>
<td>PT_BR.UTF-8</td>
</tr>
<tr>
<td>Portuguese (Portugal) PTG</td>
<td>PT_PT.UTF-8</td>
</tr>
<tr>
<td>Russian RUS</td>
<td>RU_RU.UTF-8</td>
</tr>
<tr>
<td>Spanish (Modern) ESN</td>
<td>ES_ES.UTF-8</td>
</tr>
<tr>
<td>Swedish SVE</td>
<td>SV_SE.UTF-8</td>
</tr>
<tr>
<td>Thai THA</td>
<td>TH_TH.UTF-8</td>
</tr>
<tr>
<td>Turkish TRK</td>
<td>TR_TR.UTF-8</td>
</tr>
</tbody>
</table>

Related Topics
“Specifying the Locale for Siebel Business Applications” on page 291
Setting Permissions and Ownership

This topic is part of "Planning Your Siebel Deployment" on page 283.

This topic provides information about permissions and ownership for user accounts that will perform installations.

- To install server-based Siebel CRM modules, you must be a nonroot user. You cannot install these modules as the root user using Oracle Universal Installer software. This requirement applies to all new installations of Siebel Enterprise Server and Siebel Application Interface. It also applies to all migration installations and to all installations of Siebel Patchset releases for the current release.

  For existing installations of Siebel CRM version 8.1.1.7 or earlier that were originally installed as the root user (using InstallShield installers), you can use the `chown` command to change the owner for all of the installation directories and files to a nonroot user in order to perform the migration installation.

  After installing as a nonroot user, you can optionally change the installation owner back to the root user. Note that the same requirement will apply every time that you install a new release, including migration installations of a future release or installations of Siebel Patchset releases. In general, it is recommended not to change the owner back to the root user, unless your deployment requires it.

- Before you install each server module discussed in this guide, set `umask` to `027` on the installation directory of that computer. Changing this setting eliminates other permissions, including group write permissions. This action also sets the default permissions, so that all of the files and directories that are created afterwards have `rwx r-x r-x` permissions. The Siebel service owner account must have all permissions. However, the group must have read and execute (for directory access) permissions only. See also “Creating the Siebel Service Owner Account” on page 302.

Related Topics

- “Requirements Specific to UNIX or Linux Operating Systems” on page 310
- “Configuring the Siebel Gateway for Automatic Start” on page 151
- “Configuring the Siebel Server for Automatic Start” on page 154
Installing Siebel Business Applications from a Remote Server Computer

This topic is part of "Planning Your Siebel Deployment" on page 283.

If you are installing server-based Siebel modules in GUI mode from a remote server computer, then you must set the DISPLAY variable to display the Java installer user interface on your local computer. For example, depending on your shell:

```
export DISPLAY=mycomputer:0.0
```
or:

```
setenv DISPLAY mycomputer:0.0
```

In this command, `mycomputer` is the computer name or IP address of your local workstation computer.

You might be able to test that your display works correctly on your local computer by entering:

```
xclock
```
You can also verify the IP address by entering:

```
echo $DISPLAY
```
If the clock does not appear on your local computer, then issue the following command on your local computer:

```
xhost +
```
If you are using X-connectivity software to access the UNIX computer from a Windows computer, then the installer might fail or stop responding. If this is the case, then try using a later version of the X-connectivity software.

**NOTE:** For additional information, refer to vendor or other documentation for your UNIX operating system, or contact your system administrator for assistance.

Restrictions on Host Names for Siebel Gateway and Siebel Server

This topic is part of "Planning Your Siebel Deployment" on page 283.

See also "Restrictions on Names for Siebel Enterprise and Siebel Server" on page 296, which is about names for Siebel entities that you specify during configuration.

This topic describes restrictions for host names for server computers on which you will install Siebel Gateway or Siebel Server.
The Siebel Gateway name is defined automatically based on the host name of the server computer. However, problems might arise during configuration of Siebel modules unless the following requirements are observed:

- Host names for Siebel Gateway or Siebel Server must not include dashes (hyphens). It is recommended that you use an underscore if a separator character is required. For example, host_sba17 is acceptable, but host-sba17 is not.

  **NOTE:** A dash might not cause problems in every scenario, but problems have been observed in many specific scenarios, as noted in 477993.1 (Article ID) on My Oracle Support. This document was previously published as Siebel Alert 1067. (Workarounds described in the alert, involving substitute .scm files, do not apply to the current software version.) In any case, similar restrictions for naming a Siebel Enterprise or Siebel Server are noted in "Restrictions on Names for Siebel Enterprise and Siebel Server" on page 296.

- The host name for Siebel Gateway must be no longer than 15 characters.

  The Siebel Management Console task for configuring the Siebel Gateway displays an error if the host name you enter is longer than 15 characters.

  (Siebel Management Console tasks for configuring the Siebel Enterprise and the Siebel Server also validate that the name of the Siebel Gateway, which would have been previously configured, is no longer than 15 characters.)

- In general, it is recommended not to define the host name for the Siebel Gateway computer to include domain information, as might be common in some UNIX environments. The entire host name is subject to the 15-character limit mentioned previously.

**Restrictions on Names for Siebel Enterprise and Siebel Server**

This topic is part of “Planning Your Siebel Deployment” on page 283.

This topic describes restrictions to observe when planning the names that you will give the Siebel Enterprise and Siebel Server instances during configuration of Siebel Business Applications software.

See also “Restrictions on Host Names for Siebel Gateway and Siebel Server” on page 295.

Siebel Management Console tasks that specify or refer to the Siebel Enterprise name or the Siebel Server name validate for some of the following requirements, such as the 12-character limit. User input is validated in the Siebel Management Console. Observe all of the documented restrictions regardless of validation behavior.

**Siebel Enterprise Naming Restrictions**

The following restrictions apply to naming a Siebel Enterprise:

- The name must be no longer than 12 characters.

- The name cannot be *server* or *enterprise*. (A name such as *enterprise1* is acceptable.)
Siebel Server Naming Restrictions
When planning the names of Siebel Server instances within a Siebel Enterprise, the following restrictions apply:

- Names must contain only alphabetic characters, numerals, underscores, or a combination thereof. For example, do not use dashes (hyphens) in naming Siebel Server instances.
- Names must lead with an alphabetic character.
- Names must be unique within the Siebel Enterprise.
- Names must be no longer than 12 characters.
- Names cannot be server or enterprise. (Names such as server1 are acceptable.)

File and Directory Naming Conventions
This topic is part of “Planning Your Siebel Deployment” on page 283.

Use lowercase for all of the file names, directory names, path names, parameters, flags, and command-line commands, unless you are instructed otherwise.

Directory names or file names cannot contain special characters, including periods, apostrophes, accents, number (pound or hash) signs, ampersands, or spaces. Underscores are acceptable. Spaces are not allowed for server installs on Windows (though the operating system might otherwise allow it). Spaces are acceptable for Siebel Web Client or Siebel Tools installs (on Windows).

How This Guide Refers to Your Installation Directories
This guide uses the following conventions to refer to the installation directories either created by the installers or to which users navigate to access files and executable programs.

NOTE: The default installation directories shown in this guide for Siebel Enterprise Server components, Siebel Application Interface, Siebel Web Clients, and Siebel Tools are those for new installations of the current release, Siebel CRM version 17.0. Alternatively, your products might have been installed in different installation directories, such as if you originally installed them for a prior release.

$SIEBEL_ROOT. Generally, this refers to the main directory in which software for each Siebel Enterprise Server component has been installed. The installers for the Siebel Enterprise Server components install into the top-level directory, such as /Siebel, although the directory where you install might be different, such as /export/home/Siebel. Generally, this directory is what $SIEBEL_ROOT represents in this guide.

NOTE: $SIEBEL_ROOT might also represent the value of the SIEBEL_ROOT environment variable, which usually corresponds to a module-specific installation directory, such as /Siebel/siebsrvr for Siebel Server.

$ORACLE_HOME. This refers to the same directory as represented by $SIEBEL_ROOT.
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$SIEBEL_HOME. The installation or root directory for Siebel Business Applications software in general (such as /Siebel), or of a specific module such as Siebel Gateway or Siebel Server (such as /Siebel/siebsrvr for Siebel Server), depending on the context. Many scripts contain variables with this name; its meaning is most often derived from the context.

$SIEBSRVR_ROOT. The installation or root directory for Siebel Server, such as /Siebel/siebsrvr.

$SIEBEL_SERVER_ROOT. This term is sometimes used within executable programs, such as the siebel_server script, as a synonym for $SIEBEL_HOME.

$SIEBEL_GATEWAY_ROOT. The installation or root directory for Siebel Gateway, such as /Siebel/gtwysrvr.

DBSRVR_ROOT. The directory into which you install Siebel Database Configuration Utilities (also called the Siebel Database Server), such as /Siebel/dbsrvr (on a Siebel Server computer).

SIEBEL_AI_ROOT. The directory into which you install Siebel Application Interface, such as /Siebel_AI.

SIEBEL_CLIENT_ROOT. The directory into which you install Siebel Mobile Web Client or Siebel Developer Web Client, such as C:\Siebel\Client or a similar location.

SIEBEL_TOOLS_ROOT. The directory into which you install Siebel Tools, such as C:\Siebel\Tools or a similar location.

Creating the Siebel File System

This topic is part of “Planning Your Siebel Deployment” on page 283.

The Siebel File System is a shared directory, or set of directories, that is network-accessible to the Siebel Server and that can store files such as attachments for use by Siebel Business Applications. Siebel File System directories might optionally exist on multiple separate devices or partitions.

Each File System directory might be created on a server computer where you have installed a Siebel Server, or on another network server that can share the directory, so that it is available to the Siebel Server. Consult your third-party documentation for requirements for networked file systems.

Creating multiple Siebel File System directories in different locations can enable you to store larger volumes of data. As new file attachments are inserted, they are evenly distributed to these multiple File System directories. If you create multiple File System directories, then you must include all of the directory locations, delimited by commas, when you specify the Siebel File System location during configuration of your Siebel environment. Each File System directory location must be uniquely named within the network context where it will be accessed.

You can exclude certain types of files from being saved to the Siebel File System, as determined by their file extensions. For more information about setting system preferences to enable this feature and to specify the file extensions to be excluded, see Siebel Security Hardening Guide.
Siebel File System Requirements

The following are requirements for the Siebel File System. Additional requirements are noted later in this topic.

- You specify the Siebel File System directory when you configure and deploy the Siebel Enterprise using Siebel Management Console. Siebel Management Console creates the Siebel File System directory if the directory specified for the File System does not exist. However, it is recommended that you create the primary Siebel File System directory with appropriate permission before you configure the Siebel Enterprise.

- The user running the Siebel Management Console must have write permission in the Siebel File System directory.

- It is strongly recommended that you disable short file-name generation on Windows server computers or operating system instances hosting the Siebel File System. Using this type of file-naming can cause severe performance issues when the file system grows to a large size.

- The underlying physical file system must use file locking. Valid locks must be returned that are appropriate to the action being undertaken. For example, when a file is created or written to, an exclusive lock is needed. File locking must ensure the integrity of the files accessed. If a write lock is acquired for a file, then no other process must be able to access the file. For more information and recommendations, see 759070.1 (Article ID) on My Oracle Support.

For a UNIX deployment with an NFS file system, you must enable the NFS server’s lockd and statd daemons, and also the basic NFS daemons that implement mounting and accessing a share. These locking daemons must be tuned to the number of operating system threads. Otherwise, these daemons might not be able to manage the high volume of concurrent file system lock requests that a large scale Siebel CRM system can generate.

- If the operating systems of the computers hosting the Siebel Server and a File System directory are different (for example, one Windows and one UNIX), then you might have to deploy a third-party cross-platform networking tool, such as Samba, to allow both computers to share the directory. See your third-party vendor documentation for details.

- You must create a separate Siebel File System for each Siebel Enterprise. For example, if you have development and test databases, then you must have two separate Siebel Enterprises, and therefore two Siebel File Systems.

- The ability to use multiple directories and devices for the Siebel File System does not apply to the Siebel Mobile Web Client, for which the Siebel File System must use a single directory on the client computer.

- If you operate a File System directory as part of a cluster for failover purposes, then you must create the directory on a clustered disk drive with a clustered network share resource. For information about clustering your servers and about deployment options for the Siebel File System, see Siebel Deployment Planning Guide.
Siebel File System and Siebel Server Components
Each Siebel Server accesses the Siebel File System (for the Siebel Enterprise) by means of a dedicated server component, called File System Manager (alias FSMSrvr). Individual Siebel Web Clients require no direct knowledge of the locations of the Siebel File System directories, because they connect to FSMSrvr through the Application Object Manager component on the Siebel Server to request file uploads or downloads. The Application Object Manager passes such requests to FSMSrvr, which processes the requests through interaction with the File System directories.

Because the Siebel Server is the sole access mechanism to the Siebel File System, the user with administrative privileges for the Siebel Server, and no other user, must have access privileges to the File System directories. This precaution protects the File System from direct physical access by all other users.

Some Siebel Server components might access the Siebel File System directly, without using File System Manager.

Siebel File System Parameter
The Siebel File System parameter defines the particular directory or set of directories that you are using for the Siebel File System. Specify multiple File System directories delimited by commas.

The Siebel File System parameter can be defined at the Siebel Enterprise level, Siebel Server level, or server component level. For example, for a Siebel Server dedicated for use with Siebel EIM, you might choose to use a Siebel File System location that is not in general use in the Siebel Enterprise. Use Siebel Server Manager to individually modify the parameter at the Siebel Server or component level, if the File System that is to be used by a particular Siebel Server or applicable component has different directory locations than are defined for the Siebel Enterprise.

The value of the Siebel File System parameter cannot exceed 2048 characters in length.

NOTE: Verify that the network names of servers that support the Siebel File System are properly recorded in your copy of the worksheet in Appendix A, "Siebel Deployment Planning Worksheet." Use the computer names, not the IP addresses, for the Siebel File System names. IP addresses are not supported.

Siebel File System Utilities
The following utilities are available to help you manage your Siebel File System directories: sfscleanup and sfspartition.

- Use sfscleanup to clean up orphan files in the Siebel File System.
- Use sfspartition to configure an existing Siebel File System to use multiple partitions or multiple directories.

For information about using these utilities, see Siebel System Administration Guide.
**Naming a Siebel File System Directory**

Each Siebel File System directory name must be alphanumeric, must begin with an alphabetic character, and cannot contain special characters or spaces. Underscores are permitted. For example, you might name a directory something like this:

```
/server/siebel or /server/siebel/filesystem
```

Such a directory might be referred to using the following notation:

```
/SiebelFS/siebel17
```

where:

- **SiebelFS** is the host name of the computer (for example, where a dedicated computer is used for the Siebel File System).
- **siebel17** is the name of the shared directory.

You have to specify all of the applicable shared directories (delimited by commas) when configuring the Siebel Enterprise. These shared directories must be available to all of the Siebel Servers in the Siebel Enterprise. You might have to use a file-sharing tool to access the directories.

**NOTE:** When you create a Siebel File System shared directory, only the associated Siebel Servers must be allowed to create subdirectories in that location. Do not manually create subdirectories in that location.

As part of the Siebel Server installation, File System Manager automatically generates a set of subdirectories under each Siebel File System root directory. Some of these directories are described in **Table 23 on page 301**.

<table>
<thead>
<tr>
<th>Subdirectory</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>att</td>
<td>Main subdirectory for file attachments</td>
</tr>
<tr>
<td>atttmp</td>
<td>Temporary directory for file attachments</td>
</tr>
<tr>
<td>CFGCache</td>
<td>Files used by Siebel Product Configurator</td>
</tr>
<tr>
<td>CFGDefs</td>
<td>Files used by Siebel Product Configurator</td>
</tr>
<tr>
<td>cms</td>
<td>Files used for outbound communication requests</td>
</tr>
<tr>
<td>eim</td>
<td>Siebel transaction files for Siebel EIM</td>
</tr>
<tr>
<td>ISS_OBrkCache</td>
<td>Files used by Siebel Product Configurator</td>
</tr>
<tr>
<td>Marketing</td>
<td>Main subdirectory for Siebel Marketing</td>
</tr>
<tr>
<td>red</td>
<td>Rule edit cache for Siebel Product Configurator</td>
</tr>
<tr>
<td>ssp</td>
<td>Session preferences</td>
</tr>
<tr>
<td>userpref</td>
<td>Siebel user preferences</td>
</tr>
</tbody>
</table>
For a migration installation case, Siebel File System subdirectories from previous releases are retained. Some of these directories might no longer apply in the current release, due to evolving feature support in Siebel Business Applications.

For more information about some of the Siebel File System subdirectories, see applicable documentation on Siebel Bookshelf, including Siebel System Administration Guide.

**Setting Up the Siebel File System**

Use the following procedures to set up the Siebel File System directories.

**NOTE:** In addition to using the following steps, you must install the third-party software required to view standard attachment types, such as Microsoft Word, Excel, or Lotus Notes, on client computers where users run Siebel Business Applications.

**To set up the Siebel File System**

1. Create each directory on the applicable server and record all of the directory locations in the copy that you made of the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.”

2. Using the appropriate administrative tools for your UNIX operating system, set permissions for the Siebel administrator to access the directory and subdirectories to 700.

   **NOTE:** Only the Siebel administrator for the Siebel Server, and no other user, must have access privileges to the Siebel File System directories.

3. Grant access to each Siebel Server for the appropriate group.

   If an appropriate GUI-based administrative tool does not exist on your operating system, then you can use the `chmod` and `chgrp` utilities to set these parameters. Consult your UNIX operating system documentation for more information.

**Related Topics**

“Populating the Siebel File System” on page 144

**Related Books**

*Siebel Deployment Planning Guide*
*Siebel System Administration Guide*
*Siebel Security Guide*
*Siebel Security Hardening Guide*

**Creating the Siebel Service Owner Account**

This topic is part of “Planning Your Siebel Deployment” on page 283.

The Siebel Enterprise Server requires that you create a standard UNIX system user account. This account must be available on each Siebel Server in your Siebel Enterprise under which Siebel processes and components operate.
Use the following guidelines to create the Siebel service owner account:

- The Siebel service owner account must be defined or available on each applicable server computer: on the Siebel Gateway, on each Siebel Server in the Siebel Enterprise, and on any computer on which the Siebel File System exists.

- Create the Siebel service owner account at the network level, using an appropriate administration tool for your UNIX operating system, so that the same account can be used for all of the UNIX server computers within the Siebel Enterprise Server. Make sure that the numeric values for uid and gid match across the various computers.

- The Siebel service owner account password must not require a change on next logon and must be set not to expire.

- The Siebel service owner account name or password cannot contain any spaces.

- When you determine the Siebel service owner account name and password, record this information in your copy of the worksheet in Appendix A, “Siebel Deployment Planning Worksheet.” (For security reasons, you might prefer not to record the password in the worksheet.) See also Siebel Security Guide.

Related Topics
“Setting Permissions and Ownership” on page 294
“Requirements Specific to UNIX or Linux Operating Systems” on page 310
Appendix A, “Siebel Deployment Planning Worksheet”

Installation and Configuration Methods by Deployment Type

You can use any of several different overall methods for installing and configuring Siebel Business Applications software. Use the following information to help you determine which overall method, or combination of methods, is most suitable for your deployment requirements.

- “Small to Medium-Sized Deployments” on page 303
- "Medium-Sized Deployments” on page 304
- "Large Deployments” on page 304
- “Installation and Configuration Options” on page 305

For more information, see Chapter 2, “Overview of Installing Siebel Business Applications,” and other relevant topics.

Small to Medium-Sized Deployments

Do you require a small to medium-sized deployment? For smaller deployments, including some test or demonstration deployments, you might require all of the server-based Siebel Business Applications software to be installed on the same computer.
Verify that you have created the database instance (if you do not already have a Siebel database). The Siebel database might be located on the same computer as the Siebel Enterprise Server and the Siebel Application Interface, or on a different computer.

In this scenario, you install the Siebel Enterprise Server components and you install the Siebel Application Interface on the same computer. Siebel Enterprise Server components include Siebel Gateway, Siebel Server, Database Configuration Utilities, EAI Connector, and Siebel Enterprise Cache.

You use the Siebel Enterprise Server installer to install the Siebel Enterprise Server components. Then you use the same installer to install the Siebel Application Interface in a different directory on the same computer.

If you do not have a Siebel database, then you start the Database Configuration Wizard and perform the task to install the Siebel database into the database instance.

After you install the Siebel database, you run Siebel Management Console to configure the components that you installed. You configure Siebel security, the Siebel Gateway, Siebel Enterprise, Siebel Server, Siebel Application Interface, and other modules.

**Medium-Sized Deployments**


Verify that you have created the database instance (if you do not already have a Siebel database). The Siebel database is assumed to be located on a different computer than the computer with Siebel Enterprise Server software.

In this scenario, all of the Siebel Enterprise Server components are to be installed on the same computer, but the Siebel Application Interface is to be installed on a different computer.

You use the Siebel Enterprise Server installer to install the Siebel Enterprise Server components. Then you use the same installer to install the Siebel Application Interface on a different computer.

You can install in GUI mode or use unattended installation. For more information about unattended installation, see "Large Deployments" on page 304.

If you do not have a Siebel database, then you start the Database Configuration Wizard and perform the task to install the Siebel database into the database instance.

After you install the Siebel database, you run Siebel Management Console to configure the components that you installed. You configure Siebel security, the Siebel Gateway, Siebel Enterprise, Siebel Server, Siebel Application Interface, and other modules.

**Large Deployments**

Do you require a relatively large deployment? Will you use multiple servers to deploy your Siebel Enterprise Server components?
If you must support many users or multiple Siebel Business Applications and have multiple servers available, then you will probably install the Siebel Gateway, Siebel Server, Siebel Application Interface, and the Siebel database on different computers.

A large deployment usually also requires multiple Siebel Servers running on different computers or operating system instances. Each Siebel Server might be configured to run a particular application or set of applications. Or, multiple Siebel Servers might be configured similarly for participation in load balancing. You might also require multiple instances of Siebel Application Interface running on different computers or operating system instances.

Follow the same steps as for a medium-sized deployment. Then install and configure each additional instance of Siebel Server and Siebel Application Interface.

**Installation and Configuration Options**

This topic is part of “Installation and Configuration Methods by Deployment Type” on page 303.

Options that can help you install and configure Siebel Business Applications software efficiently include:

- Installation and configuration tasks are separate and are performed at different times, optionally by different users. After basic deployment decisions are made, installations can be done under the supervision of administrators who are most familiar with Siebel Business Applications. Such specialized administrators might perform all of the tasks in the Siebel Database Configuration Wizard and the Siebel Management Console.

- You can perform unattended installation or configuration, which can save you time, provide greater flexibility, and reduce error, compared to installing and configuring each installed component manually.
  - For information about unattended installation, see “Installing Siebel Business Applications in Unattended Mode” on page 54.
  - For information about unattended configuration, see Chapter 4, “Configuring Siebel Business Applications Server Modules.”

**Requirements for Installing and Configuring Siebel Enterprise Server Components**

Review the requirements and guidelines in the following topics before installing and configuring the Siebel Enterprise Server:

- “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306
- “Requirements for Siebel Gateway Authentication” on page 308
- “Requirements Specific to UNIX or Linux Operating Systems” on page 310
- “Requirements for Installing and Configuring the Siebel Gateway” on page 311
"Requirements for Installing and Configuring the Siebel Server” on page 312

"Requirements for Installing the Siebel EAI Connector” on page 314

For requirements specific to the Siebel database, see "Requirements for Installing and Configuring the Siebel Database” on page 319.

General Requirements for Installing and Configuring Siebel Enterprise Server Components

This topic is part of "Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305.

Review this topic before installing and configuring Siebel Enterprise Server components. See also the topics about individual components.

■ Before installing Siebel Business Applications software, you must review all of the relevant information in the Certifications tab on My Oracle Support. Also check for applicable alerts, bulletins, or other documents on My Oracle Support.

■ Review "About Installing Siebel Business Applications” on page 279 and “Planning Your Siebel Deployment” on page 283.

■ All computers or operating system instances on which the Siebel Enterprise Server software is installed must meet the hardware and software requirements detailed in the Certifications tab on My Oracle Support or elsewhere. The Siebel Enterprise Server installer verifies that you have required software at the necessary version levels.

■ In general, you must have installed all of the third-party products that you will require for the Siebel Enterprise Server software that you are installing. Some products can be installed after Siebel Business Applications software. Such products are listed in the Certifications tab on My Oracle Support.

■ You must have created a Siebel Business Applications installation image that includes all of the modules and components that you require. Users who run Siebel installers or modify installer files must have the necessary permissions to the network directories where the Siebel image is located. For information about creating the Siebel installation image, see Chapter 12, “Creating the Siebel Installation Image on the Network.”

■ If you install multiple components of the Siebel Enterprise Server, such as Siebel Gateway and Siebel Server, on the same computer, then they are installed into a common root directory, such as /Siebel. The environment variable SIEBEL_ROOT might be set differently in different locations, to reflect the full path to the installation location of a specific component, such as Siebel Server. Installing components in some combinations is not recommended. For more information, see “About Installing Siebel Business Applications” on page 279.

■ Installation directories must meet the requirements described in “File and Directory Naming Conventions” on page 297.

■ If you will be clustering the Siebel Gateway or Siebel Server, then plan your use of clustering or redundant disk arrays (RAID) to configure against a single point of failure. For more information about this topic, see Siebel Deployment Planning Guide.
Each computer or operating system instance that supports Siebel Enterprise Server software must have TCP/IP network connectivity to other computers that are part of or that work with the Siebel Enterprise Server. For example, the Siebel Gateway computer requires connectivity to all of the Siebel Server computers. Verify connectivity between all such computers, using the `ping` utility. For more information, see “Verifying Network Connectivity for the Siebel Server Computer” on page 251.

Before running any of the Siebel Management Console tasks in which you will specify a server computer’s host name or IP address, validate the host name or IP address that you will enter during configuration. You can use the `ping` utility for this purpose. The host name and IP address data that you specify when you run the Siebel Management Console must be correct in order for the configuration process to proceed correctly.

Verify that the network names of the servers that will support the Siebel Gateway and all of the Siebel Servers are recorded in Appendix A, “Siebel Deployment Planning Worksheet.” You need this information when configuring the Siebel Servers.

It is strongly recommended to review all applicable security information before you configure Siebel Business Applications, which use Transport Layer Security (TLS).

When data encryption is enabled, make a backup copy of the key file before you start a migration installation for Siebel Enterprise Server. Copy back this file after the migration.

**CAUTION:** When data encryption is enabled, a migration installation for Siebel Enterprise Server creates a new key file (keyfile.bin), overwriting your existing key file. If this happens, the encrypted columns will be inaccessible. To prevent this result, you must make a backup copy of the key file before starting the migration installation. After the migration installation, copy back the original key file. For more information about data encryption, see Siebel Security Guide.

Review the issues described in “Managing Temporary Disk Space Required by Siebel Installers and Wizards” on page 288. For example, make sure that you have adequate disk space, and make sure that the login ID running the installer has write permissions to this directory.

It is strongly recommended that you install and deploy, or at least install, all of the languages that you expect to require. For more information, see “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

For more information, see additional relevant topics, including:

- “About Installing Siebel Business Applications” on page 279
- “Planning RDBMS Installation and Configuration” on page 286
- “Siebel Installation Media Contents” on page 356
- “About Configuring Siebel Business Applications” on page 63 and following topics
- “Preparing to Run Siebel Server Components” on page 158

You cannot install new Siebel Enterprise Server components into an existing installation.

Note that the Siebel Enterprise Server installer user interface can run in the supported languages described in “About The Language in Which Siebel Installers and Wizards Run” on page 289.

Before you configure Siebel Enterprise Server components, you must have created the Siebel File System. It must meet all of the criteria described in “Creating the Siebel File System” on page 298.
Before you install Siebel Business Applications, review documented information about the installation and configuration process and applicable requirements. Customers must manage the overall installation and configuration process carefully to ensure success.

For existing deployments, all Siebel Server component jobs must complete before:

- You perform any Siebel CRM installations in a migration installation case.
- You perform any upgrade tasks in a full database upgrade case.

After you perform all installation and upgrade tasks, recreate any component job definitions that you require for your deployment.

Antivirus software, firewalls, and other security software can interfere with installation and operation of software if they are not properly configured. In some cases, you might need to disable antivirus software while installing Siebel CRM software. It is also recommended to exclude certain types of files from virus scanning. In addition, you might need to disable the Windows feature User Account Control while installing Siebel CRM software.

Additional requirements apply for migration installations of the current release. For more information, see “Additional Tasks for Migration Installations” on page 57.

Related Topics
Chapter 2, “Overview of Installing Siebel Business Applications”
“Additional Tasks for Migration Installations” on page 57
“About Configuring Siebel Business Applications” on page 63 and following topics
“Installation and Configuration Methods by Deployment Type” on page 303
“Requirements Specific to UNIX or Linux Operating Systems” on page 310

Related Books
Siebel Security Guide
Siebel Deployment Planning Guide

Requirements for Siebel Gateway Authentication

This topic is part of “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305.

Before you configure any Siebel Enterprise Server software, review the requirements associated with authentication for access to the Siebel Gateway. Authentication applies to access using Siebel Management Console or Siebel Server Manager.

Note the following requirements:

- Supported Siebel Gateway authentication methods include database authentication, LDAP, and custom methods. Additional configuration is required. You can use the same authentication method as for your Siebel enterprise connections, or use different methods.
When you initially configure the Siebel Enterprise (after installing and configuring the Siebel Gateway), you propagate settings to the Siebel Gateway that specify authentication settings. Siebel Gateway authentication uses Siebel security adapters, which are discussed in detail in *Siebel Security Guide*.

The user account that you use for Siebel Gateway authentication must have the same privileges as the Siebel administrator account created during the Siebel installation process; these privileges are required to connect to the Siebel Gateway. You can choose to use the Siebel administrator account for Siebel Gateway authentication, or you can create a new database user account, ensuring that you assign it the same level of rights and privileges as the Siebel administrator account. For more information about requirements for this account, see *Siebel Security Guide*.

If you do not have an existing Siebel database, then, if you will use database authentication, you must install it before you can configure the Siebel CRM software using the Siebel Management Console.

After you configure the Siebel Gateway, users doing subsequent Siebel Management Console tasks that require Siebel Gateway authentication, or using Siebel Server Manager, must enter Siebel administrator user credentials that are valid for the authentication method in use.

All Siebel Management Console tasks are subject to Siebel Gateway authentication. For more information about using Server Manager, see *Siebel System Administration Guide*.

If you want to use LDAP or a custom authentication method for the Siebel Gateway, then you can configure this method as part of the Siebel Management Console tasks for creating or modifying the Siebel Enterprise. The Siebel Management Console both configures and enables the security adapters (for the Siebel Enterprise or for the Siebel Gateway).

When you configure the Siebel Gateway using Siebel Management Console, the Authorization Roles setting defines the role that is required to access the Siebel Gateway. This setting includes the Siebel Administrator, which is provided by Oracle and cannot be modified. Optionally, you can add more comma-separated roles, specifying other roles that can access the Siebel Gateway.

If you want to configure a second Siebel Enterprise on the same Siebel Gateway, then do not check the option to propagate authentication settings to the Siebel Gateway when prompted. Otherwise, your settings will overwrite the existing settings.

**Related Topics**

- “Configuring the Siebel Gateway and Security” on page 74
- “Configuring the Siebel Enterprise” on page 84
Requirements Specific to UNIX or Linux Operating Systems

This topic is part of “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305.

Review the following requirements specific to UNIX or Linux operating systems:

- Verify that the network adapter is correctly configured to support full duplex Ethernet by verifying the following parameters:
  - RJ45 Port Link Status: up
  - Media Speed Selected: 100 Mbps Full Duplex
  - Media Speed Running: 100 Mbps Full Duplex

- If the set-group-id flag is used, then make sure that the installer ID is a member of the group that owns the Siebel Enterprise Server root directory.

- Installation must be performed as a nonroot user. This requirement stems from the Oracle Universal Installer software.

  Future Siebel CRM releases must be installed as the same user who installed the base release.

  For more information, see “Setting Permissions and Ownership” on page 294.

  See also “Configuring the Siebel Gateway for Automatic Start” on page 151 and “Configuring the Siebel Server for Automatic Start” on page 154.

- On UNIX operating systems, when you install Siebel server modules into a mount point location, you must do so into a directory that is at least one level down from this location.

  For example, given the mount points /export/home or /export/siebel, you must create a new directory under either of these directories, in which you will install the Siebel Enterprise Server or Siebel Application Interface. For example, you might create a directory named siebel and then install into /export/home/siebel or /export/siebel/siebel. Installing directly into the mount point location, such as /export/siebel, might create significant problems for your installation.

- On UNIX operating systems, you must configure the environment before you run the Database Configuration Wizard. Run the script CreateDbSrvrEnvScript to generate the environment setup files dbenv.csh and dbenv.sh. Source one of these files before you run the Database Configuration Wizard. For more information, “Installing the Siebel Database” on page 136. See also “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306.

Requirements for AIX Only

The following requirements apply on HP-UX only:

- Before installing, verify that the login ID performing the installation has permission to run slibc\_clean by asking the administrator to change the permission as follows:

  chmod 6555 /usr/sbin/slibc\_clean
Before you install Siebel Enterprise Server software on AIX, you must install X11 filesets, if they were not included as part of the base AIX installation.

**Requirement for HP-UX Only**
The following requirement applies on HP-UX only:

- If the environment variable LANG is set to a directory name that is a symbolic link, then the Java installer for Siebel Server will fail. You must reset any existing LANG variable to the directory that the symbolic link represents.

  **NOTE:** The LANG variable cannot be set to `univ.utf8`. Doing so causes the installer to fail.

**Requirement for Oracle Solaris Only**
The following requirement applies on Oracle Solaris only:

- Set the TCP ndd variable `tcp_co_min` to the MTU of the network interface card.

**Requirements for Installing and Configuring the Siebel Gateway**

This topic is part of “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305.

Review this topic before installing and configuring the Siebel Gateway. See also “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306.

- Install the Siebel Gateway once for each Siebel Enterprise. If necessary, multiple Siebel Enterprises can be supported by a single Siebel Gateway. In general, installing multiple instances of the same version of Siebel Gateway on the same computer is not recommended.

  For more information, see “Planning to Install Multiple Instances of Siebel Business Applications” on page 289. See also 477770.1 (Article ID) on My Oracle Support. This document was previously published as Siebel Technical Note 531.

- The default port number for Siebel Gateway is 2320. If necessary, you can select any port number (32767 or lower) that is free on the computer where the Siebel Gateway is running. Do not use port number 2321, which is the default port number for the SCBroker (Siebel Connection Broker) component, or any other port that is already in use on the server. To confirm that a port (such as 2320) is free, use a command like `netstat -a | grep 2320`.
Requirements for Installing and Configuring the Siebel Server

This topic is part of "Requirements for Installing and Configuring Siebel Enterprise Server Components" on page 305.

Review this topic before installing and configuring the Siebel Server. See also "General Requirements for Installing and Configuring Siebel Enterprise Server Components" on page 306.

- To configure a Siebel Server, a Siebel Gateway must be installed and running, and the Siebel Enterprise must be configured.

- After you install the Siebel Gateway, you run the Siebel Management Console to configure it, and then you configure the Siebel Enterprise. All Siebel Servers you install that are part of the same Siebel Enterprise, regardless of the operating system, must connect to the same Siebel database. For most deployments, all of the Siebel Servers connecting to this database will belong to the same Siebel Enterprise.

  Additional Siebel Servers that you install and configure inherit parameters from the Siebel Enterprise. You configure each Siebel Server using the Siebel Management Console.

- When you run the Siebel Management Console to configure each Siebel Server, all of the component groups are listed and you must enable the ones that you need for this server. If you do not enable component groups during Siebel Server configuration, then you can enable them manually after installation, using Siebel Server Manager. For more information about component groups and about using Server Manager, see Siebel System Administration Guide. See also "Preparing to Run Siebel Server Components" on page 158.

- Depending on your business requirements, you might deploy one or more Siebel Enterprise Servers. For information about deploying multiple Siebel Enterprise Servers, see Siebel Deployment Planning Guide. See also 477770.1 (Article ID) on My Oracle Support. This document was previously published as Siebel Technical Note 531.

  NOTE: In special cases, such as for some large deployments, a single Siebel database can support multiple Siebel Enterprises. Such a deployment must be planned carefully. For details, see 477829.1 (Article ID) on My Oracle Support. This document was previously published as Siebel Technical Note 544.

About Clustering the Siebel Gateway and Siebel Server

If you will operate certain servers as part of a cluster, then it is strongly recommended that you install and configure the Siebel Gateway and the Siebel Server on separate resource groups. For information about clustering, see Siebel Deployment Planning Guide.

Language and Locale Requirements

Make sure that you have the appropriate locales installed on the computers on which you intend to deploy Siebel Server. Siebel log and configuration files use UTF-8 with Byte Order Mark as the default encoding. If these files contain any non-ASCII characters, then proper viewing and editing requires a UTF-8 locale.

For more information about supported locales, see the Certifications tab on My Oracle Support.
The locale can affect how dates and times are displayed. For more information, see *Siebel Global Deployment Guide*.

**NOTE:** Make sure that the locale that you are using matches the locale set at your operating system level. For details, see “Specifying the Locale for Your UNIX Operating System” on page 292.

**Guidelines for Installing Multiple Language Packs on the Siebel Server**

If you will install multiple language versions of Siebel Business Applications on your Siebel Servers, then review the following configuration guidelines:

- You can include multiple languages when you install and configure a Siebel Server.
- For each installed language that you choose to deploy when you configure the Siebel Server, language-specific Application Object Manager components are created.

  For more information about scenarios for multilingual deployments, see “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163 and related topics. See also *Siebel Global Deployment Guide*.

- If multiple languages are installed on a Siebel Gateway or Siebel Server, then you will be prompted for the primary (base) language. The primary (base) language is the language in which you want your server to run and in which you normally want to read messages. If you want to change the language in which you bring up your server, then you must change this setting.

**Search Server**

A Siebel Server computer can be configured to execute searching using a locally installed search server or can be pointed to a remote search server to handle search execution tasks.

**NOTE:** For search-related installation guidelines and requirements, see *Siebel Search Administration Guide*.

**Database Requirements**

Make sure that your database administrator has installed the RDBMS that your site will use and created the Siebel database instance and that you meet all of the database connectivity requirements. For more information, see Chapter 11, “Configuring the RDBMS,” including “Configuring Siebel Server Connectivity to the Siebel Database” on page 351. See also “Planning RDBMS Installation and Configuration” on page 286.

The RDBMS that you are using must support the same languages and code pages that you install on the Siebel Servers. For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.

**NOTE:** After performing a migration installation of the current release, then you must run Incremental Repository Manager. For more information, see “About Database Updates for the Current Release” on page 129.
Third-Party Software Requirements
Make sure that you have already installed the appropriate version of all of the third-party software products required. Otherwise, the Required Software Components prompt appears. For more information, see the Certifications tab on My Oracle Support.

Temporary Disk Space
Review the issues described in “Managing Temporary Disk Space Required by Siebel Installers and Wizards” on page 288. For example, make sure that you have adequate disk space, and make sure that the login ID running the installer has write permissions to this directory.

Requirements for Installing the Siebel EAI Connector
This topic is part of “Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 305.

For a list of supported operating systems for EAI Connector, see the Certifications tab on My Oracle Support. See also “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306.

Requirements for Installing and Configuring the Siebel Application Interface
Before installing and configuring the Siebel Application Interface, review the requirements described in the following information:

■ “About the Siebel Application Interface” on page 315
■ “Planning the Siebel Application Interface Topology” on page 315
■ “General Requirements for Installing and Configuring the Siebel Application Interface” on page 316
■ “Requirements for User Permissions for the Siebel Application Interface” on page 317
■ “Requirements for Configuring Anonymous Users for the Siebel Application Interface” on page 318
About the Siebel Application Interface

Siebel Application Interface enables communication between Siebel Web Clients and Siebel Servers. Siebel Business Applications are a family of Web-based applications that users access through a standard Web browser. Several components work together to deliver the applications to end users:

- **Siebel Web Client.** The Siebel Business Applications client that runs in the browser on the end user’s computer and connects to the Siebel Application Interface. For information about other Siebel clients, see the applicable documentation. For example, for information about the Siebel Mobile applications, see Siebel Mobile Guide: Connected and Siebel Mobile Guide: Disconnected.

- **Siebel Application Interface.** A program that communicates with the Siebel Web Engine (which is part of an Application Object Manager component, such as Call Center Object Manager) on the Siebel Server and with browsers run by users of Siebel Business Applications. For Siebel Application Interface installation instructions, see “Installing Siebel Business Applications” on page 43. For Siebel Application Interface configuration instructions, see “Configuring the Siebel Application Interface” on page 95.

- **Siebel Web Engine (part of Application Object Manager on Siebel Server).** The Siebel Web Engine is part of the Application Object Manager component on the Siebel Server, such as Call Center Object Manager. The Application Object Manager provides access to Siebel Business Applications data and logic. For information about the hardware and operating systems supported for Siebel Business Applications, see the Certifications tab on My Oracle Support.

Planning the Siebel Application Interface Topology

Before you install the Siebel Application Interface for your Siebel deployment, as described in Chapter 3, “Installing Siebel Business Applications Server Modules,” you must decide how you will distribute instances of Siebel Application Interface and other components. For the best performance and scalability, put the Siebel Application Interface on one or more dedicated computers.

This topic is part of “Requirements for Installing and Configuring the Siebel Application Interface” on page 314.

Two basic methods are as follows:

- **Single-node.** Installing Siebel Enterprise Server components and your Siebel Application Interface on a single computer or node. (If you do this, then you must use separate installation directories.)

- **Distributed.** Distributing the preceding components, where instances of Siebel Application Interface on one or more dedicated computers connect to multiple Siebel Servers in the Siebel Enterprise. These Siebel Application Interface instances can be dynamically balanced for Application Object Manager components on different Siebel Server computers.
Each deployment choice involves a trade-off. However, in enterprise-sized deployments, it is strongly recommended that you use a distributed node deployment for the following reasons:

- **Less resource contention.** Distributing the Siebel Application Interfaces and the Siebel Servers (with Application Object Manager components) on different computers eliminates contention for CPU and other server resources. However, to take advantage of the performance improvement, you must have a high-speed network connection between the two computers.

- **Higher fault tolerance.** Operating multiple instances of components on multiple computers reduces downtime and the effect of failure on any one computer.

- **Greater flexibility with firewalls.** Putting Siebel Application Interface on a different computer from the Siebel Server with Application Object Managers lets you deploy your Siebel Application Interface in the DMZ while keeping the Siebel Enterprise Server behind a secure firewall.

- **High availability.** A multinode configuration is required for deployments that support large numbers of concurrent users or where high availability is an operating requirement.

For more information about Siebel Application Interface, see “About the Siebel Application Interface” on page 315. See also Siebel Deployment Planning Guide and Siebel Security Guide.

### General Requirements for Installing and Configuring the Siebel Application Interface

This topic lists general requirements for installing and configuring the Siebel Application Interface.

This topic is part of "Requirements for Installing and Configuring the Siebel Application Interface“ on page 314.

- Before installing Siebel Business Applications software, you must review all of the relevant information in the Certifications tab on My Oracle Support. Also check for applicable alerts, bulletins, or other documents on My Oracle Support.

- Review the issues described in "Managing Temporary Disk Space Required by Siebel Installers and Wizards" on page 288. For example, make sure that you have adequate disk space, and make sure that the login ID running the installer has write permissions to the temporary directory.

- Make sure that the computer on which you install the Siebel Application Interface meets all of the hardware and software platform requirements documented in the Certifications tab on My Oracle Support.
You must have installed all of the key Siebel Enterprise Server components, including the Siebel Gateway, at least one Siebel Server, and the Database Configuration Utilities.

You must have configured the Siebel Gateway, the Siebel Enterprise, and the Siebel Server.

Application Object Manager components must be enabled for the Siebel CRM products that you purchased and intend to use. You enable components during initial Siebel Server configuration. For information about enabling server components using Siebel Server Manager, see Siebel System Administration Guide.

**NOTE:** Wait to install additional Siebel Servers until after you have completed installation of the Siebel Application Interface software and verified the connection from the Siebel Application Interface to the initial Siebel Server.

You can deploy multiple language packs on one Siebel Application Interface instance. The Siebel Server and the Siebel Application Interface do not have to be operated in the same language. However, the Siebel Server, the Siebel Application Interface, and all of the other server components must use the same character set. For more information, see Siebel Global Deployment Guide. See also “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163.

At least one Siebel Application Interface is required for each Siebel Enterprise.

Note that uninstalling a Siebel Application Interface instance that you have configured removes the associated Siebel application configuration. See also “Uninstalling the Siebel Application Interface” on page 268.

Note that the user interface of the Siebel Enterprise Server installer, which you use to install Siebel Application Interface, can run in the supported languages described in “About The Language in Which Siebel Installers and Wizards Run” on page 289.

**Requirements for User Permissions for the Siebel Application Interface**

This topic describes some requirements for permissions that affect installation or operation of the Siebel Application Interface and the Siebel application configurations that are associated with it.

This topic is part of “Requirements for Installing and Configuring the Siebel Application Interface” on page 314.

The user who will run the Siebel Application Interface must have read, write, and execute permissions on the $SIEBEL_AI_ROOT/applicationcontainer/webapps/siebel directory and subdirectories (in this path, $SIEBEL_AI_ROOT is the directory in which the Siebel Application Interface is installed). These permissions allow static public files to be cached on the Siebel Application Interface. These directories are created during Siebel Application Interface installation and configuration. In general, Siebel administrators require full access to $SIEBEL_AI_ROOT and all of its subdirectories.

(AIX only) Before installing, verify that the login ID performing the installation has permission to run slibclean by asking the administrator to change the permission as follows:

```
chmod 6555 /usr/sbin/slibclean
```
Requirements for Configuring Anonymous Users for the Siebel Application Interface

As noted in "Creating a Siebel Application Interface Profile" on page 96, when you configure profiles for Siebel Business Applications, using Siebel Management Console, you are prompted for user names and passwords of Siebel users who will serve as anonymous users for Siebel Business Applications. Provide the anonymous user credentials, as appropriate for your deployment.

This topic is part of “Requirements for Installing and Configuring the Siebel Application Interface” on page 314.

The anonymous user has functions that include the following:

- Starting the anonymous session that displays the login page to an end user for an application. This function applies to both employee applications and customer applications.
- Allowing anonymous browsing and navigation within the application. In this case, usually applicable to customer applications only, the anonymous user must have access to any public view in the application.

You can define as many different anonymous users as you require for your deployment, each with the appropriate permissions, according to your needs. During Siebel software configuration, using Siebel Management Console, you can specify an anonymous user name and associated password when you:

- Configure the Siebel Server profile, as described in “Configuring the Siebel Server” on page 89.
- Configure the Siebel Application Interface profile, as described in "Configuring the Siebel Application Interface" on page 95:
  - An anonymous user that will serve as a global default for all applications.
  - An anonymous user that will override the default for individual applications.
  - An anonymous user that will be used for REST inbound authentication. The password for this anonymous user is used for REST requests that are sent without a user name and password.

If, after performing the initial configuration, you change the password for the database account that you are using for an anonymous user, or decide to specify a different anonymous user for a particular application, then you can modify the configuration to provide the updated password or to specify a different anonymous user for this application.

Record the credentials for each anonymous user in your deployment in the worksheet provided in Appendix A, “Siebel Deployment Planning Worksheet.”

Note the following guidelines and requirements:

- For more information about configuring anonymous users, see Siebel Security Guide.
- All anonymous users for your deployment must be defined in the Siebel database and must be defined as Siebel users. Strong passwords are highly recommended for anonymous user accounts. Anonymous users should have limited access rights, no more than is necessary for the usage context. The Siebel Management Console does not allow the Siebel administrator user, SADMIN, to be specified as an anonymous user.
You can create new database users that will serve as anonymous users through editing the grantusr.sql script. You review, modify, and execute this script before you install the Siebel database and configure the Siebel deployment. GUESTCST is an example of an anonymous user account that you would create in the grantusr.sql script. After you install the Siebel database and configure the Siebel deployment, then you still also add corresponding Siebel users. For more information, see “Creating Table Owner and Administrator Accounts” on page 130.

The anonymous user for employee applications must be defined as an employee and must be associated with an appropriate position and responsibility.

If your Siebel application does not use functionality that requires anonymous browsing, then you can disable access by the anonymous user by setting the AllowAnonUsers parameter for the Application Object Manager component to False. If anonymous browsing must be enabled, then you set AllowAnonUsers to True.

Anonymous users are used by applications that allow anonymous browsing by unregistered users, that display a Siebel login page, that support self-registration, or that support external authentication such as LDAP. The anonymous user and password are used for serving the login page.

To use nondefault or application-specific anonymous users, you must specify the anonymous user and passwords for each application, in the Siebel Application Interface profile.

Related Books
Siebel Security Guide
Siebel Security Hardening Guide
Siebel System Administration Guide
Deploying Siebel Open UI

Related Topics
“Creating a Siebel Application Interface Profile” on page 96
“Creating Table Owner and Administrator Accounts” on page 130

Requirements for Installing and Configuring the Siebel Database
Before you install and configure the Siebel database, review the following information:

Review database information in the Certifications tab on My Oracle Support and elsewhere.
For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.
For new installations, make sure that the Siebel database instance has been created and is properly configured, as documented in Chapter 11, “Configuring the RDBMS.”
Review Chapter 5, “Installing the Siebel Database on the RDBMS,” including “About Installing the Siebel Database” on page 127 and the topics that follow.
Obtain the services of a qualified database administrator (DBA) to assist you with your installation and, where applicable, upgrade.

Complete the appropriate RDBMS-specific information in your copy of the worksheet in Appendix A, "Siebel Deployment Planning Worksheet," as follows.

General Requirement
Installing the Siebel database is subject to installation requirements for Siebel Database Configuration Utilities related to Siebel Gateway authentication, which are noted in “General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306.

Oracle Database
For Oracle Database, make sure that the following elements are defined for your Siebel database:

- **Oracle SQLNet alias connect string.** Provide the name of the Oracle schema qualifier or table owner name and the SQLNet connect string for Oracle. You need this to connect to your Oracle Database.

- **Table owner account (schema) name and password.** Using an Oracle Database requires that you assign a user name and password to any database tables that you create. The term *table owner* refers to the schema that owns the database objects, such as tables, indexes, views, and triggers.

  Before installing the Siebel database components, you have to edit the grantusr.sql script, enter this and related information, and execute the script. See "Creating Table Owner and Administrator Accounts" on page 130.

- **Siebel data tablespace.** The name of the tablespace on the Oracle Database server where the Siebel data tables are stored.

- **Siebel index tablespace.** The name of the tablespace on the Oracle Database server where the Siebel indexes are stored.

- Install the Oracle Database Client software onto the computer where you will install the Database Configuration Utilities. Make sure that you have set the ORACLE_HOME variable appropriately before installing Siebel Business Applications software.

  **NOTE:** Make sure that the Oracle Database Client and Oracle Database versions are compatible, unless you are otherwise advised by Oracle Global Software Support or unless required for your particular deployment. For supported versions of Oracle Database products, see the Certifications tab on My Oracle Support.
IBM DB2
For IBM DB2, make sure that the following elements are defined for your Siebel database:

- **Database alias.** The DB2 database alias that you created when you installed the DB2 software.

- **Table owner or database owner account user name and password.** DB2 requires that you assign a user name and password to each database that you create. Before you install the tablespaces and indexes, you are prompted to edit the grantusr.sql script, enter this and related information, and execute the script. See “Creating Table Owner and Administrator Accounts” on page 130.

- **Siebel index tablespace.** The name of the tablespace on the DB2 server where the Siebel indexes are stored.

- **Siebel 4-KB tablespace.** The name of the tablespace on the DB2 server where the 4 KB Siebel data tables are stored.

- **Siebel 16-KB tablespace.** The name of the tablespace on the DB2 server where tables reside whose row length is equal to or greater than 4005 bytes, but less than 16384 bytes.

- **Siebel 32-KB tablespace.** The name of the tablespace on the DB2 server where tables reside whose row length is 32768 bytes.

- Statistics are generated automatically during table, index, and seed data installation, and during the Siebel Repository import process. However, it is recommended that statistics be kept up to date through standard database administration procedures.

- Make sure that you have installed the required IBM fix pack on your database server computer. For more information, see the Certifications tab on My Oracle Support.

- Make sure that IBM DB2 is properly configured and you have allocated disk space appropriate to your installation requirements.

Requirements for Installing Siebel Web Clients
Review the issues and tasks in this topic before installing the Siebel Web Client, as described in “Installing the Siebel Web Client” on page 181.

Administrative Rights for Installation
Administrative rights are required for installation or uninstallation of the Siebel Mobile Web Client or Developer Web Client.

For information about setting administration rights, consult the operating system manuals for the version of Microsoft Windows on which you are installing the Siebel Web Client software.

For information about uninstalling Siebel Web Client software, see "Uninstalling Siebel Web Clients or Siebel Tools” on page 270.
Directory Naming Conventions

By default, the Siebel Web Client installer assumes an installation directory of `C:\Siebel\Client` or a similar location. You can specify to install in a different location.

If you must change the installation location to use a nondefault path, then use installation directory names that describe the component being installed. The directory name can use any characters appropriate for Windows-compatible long file names, except that spaces must not be used in your install directory.

In this guide, the directory into which you install the Siebel Web Client is often referred to as `SIEBEL_CLIENT_ROOT`.

**CAUTION:** Do not install other Siebel components, such as Siebel Tools, into the same directory where you have installed the Siebel Web Client, such as `C:\Siebel\Client`. Install each component into a separate directory. If you install the sample database, then do so in the same directory as the Siebel Mobile Web Client. (Alternatively, you can install the sample database into the Siebel Tools directory instead of the Siebel Mobile Web Client directory.) If you install multiple Siebel components on the same computer (that will access different data sources), then determine your directory-naming convention before you begin installing.

Requirements and Recommendations for Siebel Web Client

Before beginning Siebel Web Client installation, review the requirements and recommendations for hardware, system software, and third-party software described in the Certifications tab on My Oracle Support.

Restricted Support for Siebel Developer Web Client

The Siebel Developer Web Client is not supported for end-user deployment. This Siebel Web Client type is supported only for development, troubleshooting, and limited administration usage scenarios.

Database Connectivity Software for Siebel Developer Web Client

Siebel Developer Web Client computers connecting directly to the Siebel database must have the correct vendor-specific database connectivity software installed. See the Certifications tab on My Oracle Support.

**NOTE:** The correct version of database connectivity software must be installed before you install the Siebel Web Client.

For additional information, see “Logging in to Your Siebel Application” on page 209.
When you have installed your database connectivity software, configure it as follows:

- For Oracle Database, you install and configure the Oracle client software to connect to the Siebel database. Record the connect string and table owner information on the worksheet in Appendix A, "Siebel Deployment Planning Worksheet." Use the driver version specified in the Certifications tab on My Oracle Support.

  For an Oracle client, use a binary sort order for development environment databases. This setting is required for adequate performance from the Siebel Developer Web Client.

  For more information, see “Specifying the Locale for Siebel Business Applications” on page 291. See also “Configuring an Oracle Database for Siebel Business Applications” on page 329 and Siebel Database Upgrade Guide.

- For IBM DB2, you install and configure the DB2 Client software to connect to the Siebel database. Record the connect string and table owner information on the worksheet in Appendix A, "Siebel Deployment Planning Worksheet." Use the ODBC driver version specified in the Certifications tab on My Oracle Support.

- For IBM DB2 for z/OS, you use DB2 Connect to connect from the Siebel Developer Web Client to the Siebel database. For details, see Implementing Siebel Business Applications on DB2 for z/OS.

### Requirements for Oracle Database XE and the Local Database or Sample Database

In the current release, Oracle Database XE is used for the local database and the sample database. For information about the requirements for using Oracle Database XE and for installing the sample database for Siebel Mobile Web Client, see "Installing and Using Oracle Database XE for the Local or Sample Database" on page 195.

### Security-Related Software

Antivirus software, firewalls, and other security software can interfere with installation and operation of software if they are not properly configured. In some cases, you might need to disable antivirus software while installing Siebel CRM software, including Oracle Database XE and the sample database for Siebel Mobile Web Client on Microsoft Windows. It is also recommended to exclude certain types of files from virus scanning. In addition, you might need to disable the Windows feature User Account Control while installing Siebel CRM software.

### Other Oracle or Third-Party Software

Your Siebel application might require some third-party software products to be installed on the client computer, for full functionality. For more information about third-party software, see the Certifications tab on My Oracle Support.

**NOTE:** Remember to install on the client computers all of the software required to view any standard attachment types your Siebel Business Applications deployment might use.
For information about requirements for the Web browser environment for running Siebel Web Clients, see Deploying Siebel Open UI and see the Certifications tab on My Oracle Support. See also topics such as the following:

- “About Installing the Siebel Web Client or Siebel Tools” on page 179
- “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
- “Installing Desktop Integration Siebel Agent on Client Computers” on page 206
- “Installing Outlook to Siebel Drag and Drop on Client Computers” on page 206
- “Siebel Client Deployment Requirements When Using Firewalls or Proxy Servers” on page 207
- “Configuring Siebel Business Applications for Pop-Up Blocker Compatibility” on page 208

Chrome Browser Users
When using Siebel Mobile Web Client or Developer Web Client with Google Chrome as the default browser, make sure that no other instances of Chrome are running prior to starting the Siebel client.

Closing Browser Sessions
Before you install the Siebel Web Client software, it is strongly recommended that you close any browser sessions on the client computer.

For information about requirements for the Web browser environment for running Siebel Web Clients, see also Deploying Siebel Open UI.

Migration Installations
Additional requirements apply for migration installations of the current release. For more information, see "Additional Tasks for Migration Installations" on page 57.

Requirements for Installing Siebel Tools
Review the requirements in this topic before installing Siebel Tools, as described in "Installing Siebel Tools" on page 189.

- Your Siebel Tools platform must meet the requirements defined in the Certifications tab on My Oracle Support.
- You must have all of the third-party software required for your implementation installed, including the database connectivity software for your chosen RDBMS. See the Certifications tab on My Oracle Support.
- You must have installed and configured the Siebel Enterprise Server software, as described in Chapter 3, “Installing Siebel Business Applications Server Modules,” and Chapter 4, “Configuring Siebel Business Applications Server Modules.”
- You must have created the Siebel database and installed the Siebel schema and seed data, as described in Chapter 11, “Configuring the RDBMS,” and Chapter 5, “Installing the Siebel Database on the RDBMS.” This database stores the Siebel Tools project repositories.
A local database can also be initialized for each developer user, as applicable. For more information, see Configuring Siebel Business Applications and Using Siebel Tools. Alternatively, you can install the local database with Siebel Tools. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

**NOTE:** Siebel Tools can also access demonstration data in the sample database, which you can install with the Siebel Mobile Web Client. For more information, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

- The sort order for the Siebel database for development environments must be set to binary. If it is set otherwise, then you cannot compile or merge repositories.

- In the current release, Oracle Database XE is used for the local database. For information about the requirements for using Oracle Database XE and for installing the local database for Siebel Tools, see “Installing and Using Oracle Database XE for the Local or Sample Database” on page 195.

- Antivirus software, firewalls, and other security software can interfere with installation and operation of software if they are not properly configured. In some cases, you might need to disable antivirus software while installing Siebel CRM software, including Oracle Database XE and the local database for Siebel Tools on Microsoft Windows. It is also recommended to exclude certain types of files from virus scanning. In addition, you might need to disable the Windows feature User Account Control while installing Siebel CRM software.

- Administrative rights are required for installation or uninstallation of Siebel Tools. For information about setting administration rights, consult the operating system manuals for the version of Microsoft Windows on which you are installing the Siebel Web Client software.

- Before performing a migration installation of Siebel Tools in a deployment with multiple languages, you must make sure that the current language mode for Siebel Tools corresponds to the primary language of the Siebel database.

  **CAUTION:** If the current language mode for Siebel Tools, before the migration installation, was not the same as the primary language, then failures will occur during the execution of Incremental Repository Merge after the migration installation. For more information about setting the language mode, see Using Siebel Tools. For more information about running Incremental Repository Merge, see Siebel Database Upgrade Guide.

- Additional requirements apply for migration installations of the current release. For more information, see “Additional Tasks for Migration Installations” on page 57.

**Related Topics**

- "Additional Tasks for Migration Installations” on page 57
- "Installing Siebel Tools” on page 189
- "Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
- "Uninstalling Siebel Web Clients or Siebel Tools” on page 270
Requirements for Installing and Configuring Siebel Business Applications
Requirements for Installing Siebel Tools
11 Configuring the RDBMS

This chapter provides guidelines for configuring the third-party RDBMS and creating the database instance that you will use for the Siebel database. It includes the following topics:

- Overview of Database Configuration on page 327
- Configuring an Oracle Database for Siebel Business Applications on page 329
- Configuring an IBM DB2 Database for Siebel Business Applications on page 338
- Configuring Siebel Server Connectivity to the Siebel Database on page 351

Overview of Database Configuration

This chapter is intended for use by database administrators (DBAs) and by others who can perform the tasks for configuring the third-party RDBMS and creating the database instance that you will use for the Siebel database.

Follow the general steps for your supported RDBMS platform, as described in this chapter. For more information, see your third-party vendor documentation, the guidelines presented in this chapter for each RDBMS, and other applicable parts of this guide.

For the third-party RDBMS product versions supported for this release of Siebel Business Applications, see the Certifications tab on My Oracle Support.

For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.

**CAUTION:** Do not perform any of the tasks mentioned in this chapter in an upgrade environment (or in another environment where you have an existing Siebel database). In particular, you do not create the database instance on the RDBMS. However, after the upgrade is complete, you might have to modify database parameters for your RDBMS platform to match settings described in this chapter. For more information, see “About Installing in Upgrade Environments” on page 282 and “Roadmap for Installing and Configuring Siebel Business Applications in an Upgrade Case (Existing Database)” on page 36.

For nonupgrade deployments (where there is no existing Siebel database), after creating the database instance and installing Siebel Business Applications software, you use scripts and utilities that are provided with the Database Configuration Utilities installation to create the Siebel database. Creating the Siebel database loads the Siebel schema and seed data into the database instance. For more information, see Chapter 5, “Installing the Siebel Database on the RDBMS.”

See also “Planning RDBMS Installation and Configuration” on page 286.

In this guide, DBSRVR_ROOT refers to the installation directory of the Siebel Database Configuration Utilities. For more information, see “File and Directory Naming Conventions” on page 297.
Configuring the RDBMS  ■ Overview of Database Configuration

**NOTE:** In general, it is easier to configure and administer a Siebel database that does not share a database instance with other applications. This approach is considered a best practice. However, some customers might decide to include multiple applications in a single database instance. The implications of this choice might differ by RDBMS type: for example, the term *database instance* has a different meaning for an Oracle Database than it does for IBM DB2. The shared database instance must be configured according to the requirements described in this chapter.

After you have completed configuring your database as described in this chapter, you can perform all of the Siebel installation and configuration tasks, including those described in:

- Chapter 3, “Installing Siebel Business Applications Server Modules”
- Chapter 4, “Configuring Siebel Business Applications Server Modules”
- Chapter 5, “Installing the Siebel Database on the RDBMS”
- Chapter 6, “Additional Postinstallation and Configuration Tasks”

**Overview of Configuring the Database**

The overall process of configuring the RDBMS and installing the Siebel database is outlined as follows. The exact process depends on your deployment requirements.

1. **Install the RDBMS software:**
   - Install the RDBMS server software on the appropriate server computers.
   - Install the RDBMS client software on computers where you will install Siebel Server, Siebel Tools, or other modules that directly connect to the Siebel database.

2. **Create the database instance.**

3. **Configure the parameters for the database instance.**

4. **(IBM DB2) Create the database, and configure the parameters for the database.**

5. **Configure storage settings, log space, and other elements for the Siebel database.**

   **NOTE:** After you perform these tasks, you install the Siebel Enterprise Server software, including Siebel Gateway, Siebel Database Configuration Utilities, and Siebel Server. You must install Database Configuration Utilities and Siebel Server on the computer where you run the Siebel Gateway; it is optional to configure and deploy this installed Siebel Server. Then you configure the Siebel Gateway, the Siebel Enterprise, and the Siebel Application Interface profile.

6. **On the computer where you installed the Database Configuration Utilities, run the Database Configuration Wizard. Perform the task to install the Siebel database (schema) in the database instance.**

   This step creates the Siebel objects (tables and indexes) in the Siebel database, imports seed data for the primary language, and adds the Siebel Repository for the primary language. Also perform the other applicable tasks for the Siebel database. For more information, see Chapter 5, “Installing the Siebel Database on the RDBMS.”

   **NOTE:** After you perform these tasks, you configure the Siebel Server, install and configure the Siebel Application Interface, and perform additional configuration tasks that are required for your deployment.
About Using Sample Scripts for Creating Siebel Database Objects
Sample scripts that are provided with the Database Configuration Utilities installation can optionally be used to create the Siebel database. *These scripts are for testing purposes in small, nonproduction environments only.* If you intend to use such a script, then first perform the tasks listed previously, through Step 6 on page 328, but omit Step 4 and Step 5.

Related Topics
“Guidelines for Creating Oracle Database Objects” on page 335
“Guidelines for Creating IBM DB2 Database Objects” on page 350

Configuring an Oracle Database for Siebel Business Applications
This topic contains guidelines for obtaining optimum performance from an Oracle Database. These guidelines will be useful to a broad segment of customers. Choose values for the parameters that are described in this guide that reflect the conditions in your particular environment. For more information, see Oracle Database technical documentation.

See also “Overview of Database Configuration” on page 327.

**NOTE:** When scripts from the Siebel Database Configuration Utilities installation are executed in an Oracle Database, as described in Chapter 5, “Installing the Siebel Database on the RDBMS,” sequences are generated with the CACHE option. Do not drop these sequences and regenerate them with the NOCACHE option, or else performance might be adversely affected and database contention might occur. If you require additional Oracle Database sequence objects, then you must create them manually, and you must grant SELECT on these objects to sse_role.

Collect statistics for the tables, indexes, and histograms for the columns where the data shape is skewed. Recollect these statistics whenever a large amount of data has been updated, deleted, or inserted. For more information about how to collect statistics, see the Oracle Database administration manuals.

For performance reasons, do not collect statistics for an empty table. For more information, see 478242.1 (Article ID) on My Oracle Support. This document was previously published as Siebel Alert 1162.

Guidelines for Configuring an Oracle Database
Various kinds of guidelines are presented for configuring an Oracle Database:

- “Guidelines for Selecting a Language for Oracle Database” on page 330
- “Guidelines for Configuring Settings in the init.ora File” on page 331
- “Guidelines for Sizing Redo Logs for an Oracle Database” on page 332
- “Guidelines for Creating Oracle Database Tablespaces” on page 332
- “Guidelines for Sizing the Oracle Database” on page 334
When creating your database, you must specify the character set at the database level. You specify other language characteristics at the database client level.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Guidelines for Selecting a Language for Oracle Database

When creating your database, you must specify the character set at the database level. You specify other language characteristics at the database client level.

To specify the character set of your database

Execute the following command to specify the character set for your database:

```
CREATE DATABASE INSTANCE_NAME CHARACTER SET CHARACTER_SET_NAME
```

where:

- `INSTANCE_NAME` is the name of your Oracle Database instance; for example, SIEBCRM.
- `CHARACTER_SET_NAME` is the textual name of the character set that you want to run; for example, WE8MSWIN1252 or AL32UTF8.

National Character Set

Siebel Business Applications do not use the three data types that store Unicode data using the national character set (NCHAR, NVARCHAR2, NCLOB). The default national character set, AL16UTF16, is acceptable.

Sort Order and Date Format

Follow the documented Oracle Database guidelines for client-level settings for the NLS_SORT and NLS_DATE_FORMAT parameters.
Guidelines for Configuring Settings in the init.ora File

The init.ora file contains parameters that have a major effect on the performance of Siebel Business Applications using Oracle Database.

Use the following settings as guidelines for your initial configuration. Your final settings will vary depending on the hardware configuration, the number of users, and the type of workload.

In the init.ora file, default parameter values are provided for small, medium, and large database deployments. Unless the configuration parameters are specified in the following settings, set them to the large database values. For detailed descriptions of each of the parameters and their effects on database performance and system resource utilization, see Oracle Database documentation.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Brief descriptions follow for several parameters for which you might have to adjust values:

- **CURSOR_SHARING.** This parameter is set to `EXACT` by default and must not be changed.
  
  **CAUTION:** Changing this value might lead to failure of some Siebel Server components.

- **DB_FILE_MULTIBLOCK_READ_COUNT.** The database buffer cache parameter dictates the number of data blocks that are read in a single Oracle Database I/O operation during a table scan. For most implementations, set this parameter to an initial value of 32. If you are using NAS storage (such as a NetApp Filer), then set the value to 8 to reduce potential network traffic problems.

- **FILESYSTEMIO_OPTION.** It is recommended to set this parameter to `SETALL`, for all operating systems. Performance issues have been observed with other settings.

- **MEMORY_TARGET.** This parameter specifies the Oracle Database system-wide usable memory. A common recommendation is to set it to a value equalling the physical memory minus 1 GB. For example, if the Oracle Database server has 16 GB of memory, then set MEMORY_TARGET to 15 GB.

- **NLS_DATE_FORMAT.** Set this parameter as needed. The default setting is `DD·MON·YY`. For information about the supported formats, see Oracle Database documentation and see “Specifying the Locale for Siebel Business Applications” on page 291.

- **NLS_SORT.** The sort order is specified during the initial installation of a database and defines the way in which the database sorts character data. Sort order support depends on both the code page of the database and whether it will be used in a development or a production environment. For more information, see “Specifying the Locale for Siebel Business Applications” on page 291.

Considerations for development and production environments are as follows:

- **Development environment databases.** The repository object names in your development environment database must sort using a binary sort order, because Siebel Tools uses this sort order internally. Specify the same sort order at the database client level, so that output there does not have to be resorted. Customers are responsible for making sure their data is backed up and restored correctly.

  **NOTE:** Binary sort order is the simplest and fastest sort order to perform in the database. Binary sorting is case-sensitive and is based on the numeric values (for example, 0 through 255 for an 8-bit character set) of the characters in the installed character set.
Configuring the RDBMS

■ Production environment databases. For information about production environment database restrictions, see the Certifications tab on My Oracle Support. See also Oracle Database documentation.

■ OPEN_CURSORS. This parameter controls the amount of spaces that are reserved for the maximum number of cursors (a cursor being the same as an open query). The minimum open cursor requirement for Oracle Database is 1000 and the maximum is 2000. Within these limits, this parameter can be adjusted according to observed usage patterns.

■ OPTIMIZER_FEATURES_ENABLE. This is an umbrella parameter for enabling a series of optimizer features that are based on an Oracle Database release number. For example, set this parameter to a value corresponding to the current release level of your Oracle Database. For more information, see Oracle Database documentation. For more information about performance tuning for Siebel CRM with an Oracle Database, see 781927.1 (Article ID) on My Oracle Support.

■ OPTIMIZER_INDEX_COST_ADJ. It is recommended that you set this parameter to 1. Use this parameter to tune the optimizer to use index access path over a full table scan. However, depending on the data shape for your Siebel database, how statistics are gathered, and the nature of your Siebel configuration changes, other values might provide better results.

■ OPTIMIZER_MODE. Set this parameter to ALL_ROWS (the default) for the Cost-Based Optimizer (CBO).

  NOTE: For more information about performance tuning for Siebel CRM with an Oracle Database, see 781927.1 (Article ID) on My Oracle Support. See also Siebel Database Upgrade Guide.

Guidelines for Sizing Redo Logs for an Oracle Database

If redo logs are too small, then frequent log switches occur, creating resource-intensive Oracle Database check-pointing in which all of the dirty buffers are flushed. A range of 10 to 15 minutes or longer for log switching is preferable under a normal OLTP (Online Transaction Processing) load. However, during periods of heavy DML (data manipulation language) activity, such as during large Siebel EIM loads or upgrades, the logs might switch more frequently than every two minutes. When this occurs, overall database performance suffers as a result.

You can check the frequency of this operation either in the alert log or by querying v$loghist. It is best to use verification when there is the greatest activity and the heaviest load on the database.

If this activity occurs too frequently, then drop and recreate individual redo log groups with larger sizes. A suggested minimum size is 300 MB.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Guidelines for Creating Oracle Database Tablespaces

The initial (minimum) tablespace allocation recommendations are as follows:

■ Data: 5 GB
■ Index: 5 GB
■ Temp: 2 GB
System: 2 GB
Sysaux: 1 GB

This allocation is enough for a fresh installation of Oracle Database (Unicode-enabled or non-Unicode-enabled).

The following additional guidelines will help you in creating tablespaces:

- To improve performance on your production system, create at least two tablespaces for a Siebel implementation: one for indexes and one for data.
- Distribute objects that you anticipate to be large or points of contention by creating additional separate tablespaces (preferably on separate disk devices).
- Be sure that you, or whoever is responsible for setting up permissions, grant the Siebel table owner account the privilege and sufficient quota to create tables and indexes in these tablespaces.

Besides the table owner, the database user ID used for Siebel Marketing also requires additional rights at the database level within the OLTP schema. You must grant DROP TABLE, DROP INDEX, CREATE TABLE, and CREATE INDEX rights to this user. For more information, see Siebel Marketing Installation and Administration Guide.

- Set storage parameters for your data and index tablespaces. The Siebel database installation procedure does not set storage parameters for the objects it creates. The storage configuration for each object follows the default storage parameters of its tablespace. It is recommended that you create locally managed tablespaces by using the following syntax:

  extent management local autoallocate segment space management auto;

- In a development or test environment, multiple Siebel Business Applications installations can coexist on one Oracle Database instance. Install each Siebel database under a separate table owner, so that each schema owner is unique.

- Function-based indexes based on expressions that require QUERY_REWRITE_ENABLED to equal TRUE are not supported. However, DESC (descending) indexes are supported, as in a standard schema.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.
Guidelines for Sizing the Oracle Database

Monitor object growth and fragmentation carefully and alter the database storage parameters as required. Also use the following guidelines for initial sizing of your Oracle Database. (If you use EXTENT MANAGEMENT LOCAL AUTOALLOCATE for CREATE DATABASE, then these guidelines do not apply.)

- Set the initial extent to a very small size (the minimum is one database block), so that empty tables and indexes do not consume large amounts of space. For example, start with either two or four blocks (in other words, 16 KB or 32 KB with an 8-KB block size). This allocation promotes less fragmentation.

  Even if you have as many 10,000 objects, this number of objects uses only 312 MB, which is far less space required than for some standard office software packages.

- Set the default next extent for your data and index tablespaces to a minimum of 100 KB.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Guidelines for Creating Temporary Oracle Database Tablespaces

Modify all of the user temporary tablespace definitions from the default of SYSTEM to the name of the temporary tablespace; for example, TEMP.

To find out which users are assigned to which temporary tablespaces, query the TEMPORARY_TABLESPACE column of DBA_USERS. If any users are assigned to a tablespace other than the one allocated for temporary sort-type operations, then correct the situation.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Guidelines for Overriding Oracle Database Default Tablespaces for Database Objects

Siebel Business Applications provide the option of overriding the default storage parameters for the tablespaces in which specific tables or indexes are created. You created these tablespaces by using the instructions in “Guidelines for Creating Oracle Database Tablespaces” on page 332. To override these parameters, edit the ddl.ctl file located in the DBSRVR_ROOT/oracle directory.

NOTE: The ddl.ctl file must not be modified except by a qualified DBA.

For each Siebel object (table or index), you can specify a tablespace by using the Table Space parameter. In the following example, the tablespace for the table S_APP_VIEW is set to DATA1.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.
As provided by Siebel Business Applications, the .ctl file does not set storage parameters for the objects it creates, so that they default to the parameters of the tablespaces in which they are created. However, the Table Space parameter works only under the following conditions:

- When the table does not yet exist (for example, when you are performing a new database installation).
- When the table must be rebuilt. In other words, when schema changes are made to the table such that an ALTER TABLE command is insufficient to implement the schema changes. In this case, the table must be dropped and recreated.

The following example illustrates the use of the Table Space parameter to set storage values for specific tables:

```
[Object 219]
Type = Table
Name = S_APP_VIEW
Column 1 = ROW_ID VARCHAR(15) NOTNULL
Column 2 = CREATED_TIMESTAMP NOTNULL DEFAULT %NOW%
Column 3 = CREATED_BY VARCHAR(15) NOTNULL
Column 4 = LAST_UPD_TIMESTAMP NOTNULL DEFAULT %NOW%
Column 5 = LAST_UPD_BY VARCHAR(15) NOTNULL
Column 6 = DCKING_NUM NUMERIC(22,7) DEFAULT 0
Column 7 = MODIFICATION_NUM NUMERIC(10,0) NOTNULL DEFAULT 0
Column 8 = CONFLICT_ID VARCHAR(15) NOTNULL DEFAULT '0'
Column 9 = NAME VARCHAR(50) NOTNULL
Column 10 = DESC_TEXT VARCHAR(255)
Column 11 = LOCAL_ACCESS_FLG CHAR(1)
Table Space = data1
```

If you use locally managed tablespaces and want to change the storage parameters, then see Oracle Database technical documentation.

For an example (IBM DB2) of overriding the defaults for specific tables and indexes, see "Guidelines for Overriding IBM DB2 Default Tablespaces for Database Objects" on page 347.

**Guidelines for Creating Oracle Database Objects**

Siebel Business Applications provide sample scripts (CrBlankOracleSiebelDEMO.sql and CrBlankOracleSiebelDEMOPostCrDB.sql), located in the DBSRVR_ROOT/Oracle directory. Use these scripts as a reference to help you create your own scripts for creating a blank Siebel database, based on the requirements for your deployment.

Use the settings in the script as guidelines for your initial configuration. Your final settings will vary depending on the server hardware configuration, the number of users, and the type of workload. Use a small, nonproduction environment for testing purposes.

Before using these scripts, read the file CrBlankOracleSiebelDEMOReadMe.txt. See also "Overview of Database Configuration" on page 327.
After you install the Database Configuration Utilities on the Siebel Server computer, as described in Chapter 3, "Installing Siebel Business Applications Server Modules," you can modify the database table and index creation scripts to specify the tablespace names that you created for Siebel tables and indexes. For more information, see "Guidelines for Overriding Oracle Database Default Tablespaces for Database Objects" on page 334.

Additional information about Oracle Database configuration and tuning options is available from Oracle, your hardware vendor, and other sources.

This topic is part of "Configuring an Oracle Database for Siebel Business Applications" on page 329.

Guidelines for Ongoing Oracle Database Administration

After your Siebel Business Applications installation is up and running, monitor the following areas on a regular basis:

- **Insertion rates on tables.** You probably will want to set the INI_TRANS value for tables with high insertion rates to a value higher than 1; a typical setting is 4.
  
  This parameter determines how many simultaneous inserts can occur on the database blocks that store data for those tables and, therefore, can affect performance in an intensive data-entry environment. Use multiple freelists for the table S_DOCK_TXN_LOG, because this table receives numerous inserts.

- **SGA cache hits.** Determine whether SGA parameters have to be adjusted for your system.

- **The extents used by each object.** A large number of extents on a table or index creates response time degradation for transactions that access the table or index.

- **Siebel tables that are subject to frequent INSERT and DELETE operations.** This transaction mixture can cause some database tables to become fragmented over time.
  
  If you are using Siebel Remote, then your DBA must monitor space utilization and fragmentation of the following tables, and perform regular database maintenance procedures as recommended for an Oracle Database. Monitor the following tables in particular, because they will have frequent changes when transaction logging is enabled:

  - S_SRM_REQUEST
  - S_DOCK_TXN_LOG
  - S_DOCK_TXN_LOGT
  - S_DOCK_TXN_SET
  - S_DOCK_TXN_SETT
  - S_DOCK_INST
  - S_DOCK_INIT_ITEM

  Your DBA might also choose to monitor all of the tables and indexes in the Siebel schema, reorganizing them when required.

This topic is part of "Configuring an Oracle Database for Siebel Business Applications" on page 329.
Guidelines for Using Real Application Clusters for an Oracle Database

Siebel Business Applications support Oracle Real Application Clusters (RAC) failover configurations for Oracle Database. Both active-passive and active-active RAC configurations are supported.

For more information, see:

- 473859.1 (Article ID) on My Oracle Support. This document was previously published as Siebel Technical Note 635.
- 478215.1 (Article ID) on My Oracle Support. This document was previously published as Siebel FAQ 2220.
- Certifications tab on My Oracle Support.
- Concepts documentation for Oracle Real Application Clusters software on Oracle Technology Network.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Guidelines for Installing the Siebel Database in a Pluggable Database

You can install the Siebel database in a multitenant environment with versions of Oracle Database that support this feature. To do so, first create a pluggable database within the container database. Then create a corresponding entry for the pluggable database in tnsnames.ora. This entry must specify the service you will use to connect to the pluggable database.

When you run grantusr.sql, you do so in the pluggable database rather than in the container database. Database settings you specify in the Siebel Management Console must be those for the pluggable database and you must create the Siebel schema within the pluggable database.

For more information about creating a pluggable database and about managing a multitenant environment, see Oracle Database documentation on Oracle Help Center, particularly the guides listed.

This topic is part of “Configuring an Oracle Database for Siebel Business Applications” on page 329.

Related Books
Oracle Database SQL Language Reference
Oracle Database Administrator’s Guide
Configuring an IBM DB2 Database for Siebel Business Applications

This topic contains guidelines for obtaining optimal performance from an IBM DB2 Database for use with Siebel Business Applications. These guidelines will be useful to a broad segment of customers. Choose values for the parameters described in this guide that reflect conditions in your particular environment. For more information, see IBM DB2 technical documentation.

**NOTE:** In this guide, the terms *IBM DB2* or *DB2* are often used to refer to the database platform IBM DB2 for Linux, UNIX, and Windows.

See also "Overview of Database Configuration" on page 327.

When you use IBM DB2, the IBM Data Server Client must be installed on the Siebel Server computer. Verify that the IBM Data Server Client is installed before proceeding. For details, see *Siebel Database Upgrade Guide*. In addition, the IBM Data Server Runtime Client must be installed on the Siebel Server computer. For IBM DB2 version information, see the Certifications tab on My Oracle Support.

**NOTE:** If your database is IBM DB2 for z/OS, then see *Implementing Siebel Business Applications on DB2 for z/OS* instead of this chapter. See also the relevant information under “Planning RDBMS Installation and Configuration” on page 286.

**Guidelines for Configuring an IBM DB2 Database**

Various kinds of guidelines are presented for configuring an IBM DB2 database:

- “Guidelines for Setting IBM DB2 Database Manager Configuration Parameters” on page 339
- “Guidelines for Selecting a Language for IBM DB2” on page 340
- “Guidelines for Creating the IBM DB2 Database” on page 342
- “Guidelines for Setting IBM DB2 Configuration Parameters” on page 342
- “Guidelines for Setting Up IBM DB2 Buffer Pools” on page 345
- “Guidelines for Creating IBM DB2 Tablespaces” on page 345
- “Guidelines for Overriding IBM DB2 Default Tablespaces for Database Objects” on page 347
- “Guidelines for Preventing IBM DB2 from Running Out of ODBC Statement Handles” on page 349
- “Guidelines for Increasing the Number of IBM DB2 User Processes Under AIX” on page 349
- “Guidelines for Determining IBM DB2 Log Space” on page 350
- “Guidelines for Creating IBM DB2 Database Objects” on page 350
- “Guidelines for Managing IBM DB2 Fragmentation” on page 351
Guidelines for Setting IBM DB2 Database Manager Configuration Parameters

You can set the IBM DB2 database configuration parameters by using the `update database manager configuration` command of the DB2 command line processor. For more information about modifying these configuration parameters, see IBM DB2 technical documentation.

Table 24 on page 339 describes IBM DB2 database manager configuration parameters that differ from the default settings. Set these parameters for each DB2 instance. Use the configuration information in Table 24 for the listed parameters. For parameters not listed in this table, accept the default settings.

This topic is part of "Configuring an IBM DB2 Database for Siebel Business Applications" on page 338.

Table 24. IBM DB2 Database Manager Configuration Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
<th>Setting or Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHEAPTHRES</td>
<td>Sort heap threshold (4 KB)</td>
<td>200000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deployments with 3,000 or more concurrent users and using over 5 GB of RAM can</td>
</tr>
<tr>
<td></td>
<td></td>
<td>increase this to 300000.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you are using automatic management, then set this parameter to 0.</td>
</tr>
<tr>
<td>DIR_CACHE</td>
<td>Directory cache support</td>
<td>YES</td>
</tr>
<tr>
<td>ASLHEAPSZ</td>
<td>Application support layer heap size</td>
<td>15</td>
</tr>
<tr>
<td>RQROBLK</td>
<td>Maximum requester I/O block size (bytes)</td>
<td>65535</td>
</tr>
<tr>
<td>MON_HEAP_SZ</td>
<td>Database monitor heap size (4 KB)</td>
<td>128 (minimum)</td>
</tr>
<tr>
<td>KEEPFENCED</td>
<td>Keep Fenced process</td>
<td>YES</td>
</tr>
<tr>
<td>NUM_INITAGENTS</td>
<td>Initial number agents in pool</td>
<td>10</td>
</tr>
<tr>
<td>NUM_POOLAGENTS</td>
<td>Number of agents in the agent pool kept</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>active at all times</td>
<td></td>
</tr>
<tr>
<td>MAX_COORDAGENTS</td>
<td>Maximum number coordinating agents</td>
<td>automatic</td>
</tr>
<tr>
<td>INDEXREC</td>
<td>Index recreation time</td>
<td>RESTART</td>
</tr>
<tr>
<td>INTRA_PARALLEL</td>
<td>Enable intra-partition parallelism</td>
<td>NO</td>
</tr>
<tr>
<td>INSTANCE_MEMORY</td>
<td>Amount of memory to be reserved for</td>
<td>automatic</td>
</tr>
<tr>
<td></td>
<td>instance management</td>
<td></td>
</tr>
</tbody>
</table>
DB2set Parameters

Use the `db2set` command to set the parameters (for example, `db2set DB2_HASH_JOIN = NO`) referenced in Table 25 on page 340.

Table 25. db2set Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTSHM</td>
<td>(AIX only) Use this parameter only when you have the Siebel database and the Siebel Server on the same AIX computer. EXTSHM must be set when the IBM DB2 database is created and must be included in the script that starts it. The parameter also must appear in the <code>sqllib/db2profile</code> file for the DB2 server. Include this parameter in the script that starts the DB2 client. After changing any of these settings, you must perform a <code>db2stop</code>, then <code>db2start</code>, to implement the changes in your DB2 database.</td>
<td>ON</td>
</tr>
<tr>
<td>DB2ENVLIST</td>
<td>(AIX only) When starting an IBM DB2 server and running EXTSHM, EXTSHM must be part of the DB2 environment. This parameter must be set when the database is created.</td>
<td>EXTSHM</td>
</tr>
<tr>
<td>DB2MEMDISCLAIM</td>
<td>(AIX only) When set to YES, IBM DB2 disclaims some or all of the freed memory, depending on the value of DB2MEMMAXFREE.</td>
<td>YES</td>
</tr>
<tr>
<td>DB2_MMAP_READ</td>
<td>(AIX only) Recommended setting only; evaluate this setting for your particular configuration and environment.</td>
<td>OFF</td>
</tr>
<tr>
<td>DB2_MMAP_WRITE</td>
<td>(AIX only) Recommended setting only; evaluate this setting for your particular configuration and environment.</td>
<td>OFF</td>
</tr>
<tr>
<td>DB2_PARALLEL_IO</td>
<td>Useful when using RAID devices. For more information, see IBM DB2 documentation.</td>
<td>* (asterisk)</td>
</tr>
<tr>
<td>DB2_REDUCED_OPTIMIZATION</td>
<td>Controls optimization techniques used at specific optimization levels.</td>
<td>IXOROFNR</td>
</tr>
</tbody>
</table>

Guidelines for Selecting a Language for IBM DB2

As part of database creation, you must set the language characteristics of your database, even if you deploy in only one language.
To do this, you must know in which of the Siebel-supported languages your database runs, the codeset your database uses, the territory for your language, and the sort order (also known as the collation sequence) that your users prefer.

For an IBM DB2 production environment database, you can use any sort order. For a development environment database, you must use binary (identity) sort order.

Setting the language characteristics of the database is part of the sample script in the DBSRVR_ROOT/DB2UDB directory.

For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.

See also “Planning RDBMS Installation and Configuration” on page 286 and “Specifying the Locale for Siebel Business Applications” on page 291.

See also “Verifying Installation for the Siebel Database” on page 239.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

**Codeset**

IBM DB2 distinguishes between a code page (also known as a character set) and a codeset. A codeset is defined as a textual string that describes the character encoding standard used for the database, whereas a code page is a numeric representation of the same standard.

**Territory**

The territory, or region, is a combination of the language and the locale; for example, French would be a language example, while Canada or France would be locales in which French is used with regional differences. So, an example of a territory is Canadian French.

**Sort Order**

The sort order is specified during the initial installation of a database and defines the way in which the database sorts character data. Sort order support depends on both the code page of the database and whether it will be used in a development or a production environment.

For more information about supported sort orders, see the Certifications tab on My Oracle Support.

- **Development environment databases.** The repository object names in your development environment database must sort in the same order that they would under the UTF-16 binary sort order, because Siebel Tools uses this sort order internally.

  **NOTE:** Binary sort order is the simplest and fastest sort order to perform in the database. Binary sorting is case-sensitive and is based on the numeric values (for example, 0 through 255 for an 8-bit character set) of the characters in the installed character set.

  Customers are responsible for making sure that their data is backed up and restored correctly.

- **Production environment databases.** For information about production environment database restrictions, see the Certifications tab on My Oracle Support. See also IBM DB2 documentation.
Guidelines for Creating the IBM DB2 Database

If you are installing a database that is to be enabled for Unicode, then you must specify UTF-8 as the codeset (including the hyphen). UTF-8 is the parameter used for Unicode implementations on IBM DB2, although the processing will use UCS-2. When you specify UTF-8 as the encoding for the VARCHAR type, the encoding for the VARGRAPHIC type is automatically set to UCS-2, even though UCS-2 is not specified as the parameter.

Verify that your data is exported and imported correctly.

For Siebel CRM language support, Unicode support, and legacy code page support, see 1513102.1 (Article ID) on My Oracle Support.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

To create the IBM DB2 database

1. Locate the primary (base) language that your database will use, the territory for your language, and the applicable codeset.

2. Using the DB2 command line processor, enter the following command:

   ```
   db2 create database dbname using codeset territory collate using identity
   ```

   where:
   - `dbname` is the alias for your database
   - `codeset` is the textual representation of your code page
   - `territory` is the territory for the language that your database runs in, under that codeset

Guidelines for Setting IBM DB2 Configuration Parameters

The database configuration parameters can be set by using the `update database configuration` command of the DB2 command line processor.

For more information about modifying these configuration parameters, see IBM DB2 technical documentation.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

Table 26 on page 343 describes IBM DB2 database configuration parameters that differ from the default settings. However, these descriptions are guidelines only. Set these parameters for each database within an instance on which you run your Siebel application. For other parameters, accept the default settings.
### Table 26. IBM DB2 Configuration Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT_DEGREE</td>
<td>Degree of parallelism (the value 1 turns query parallelism off).</td>
<td>1</td>
</tr>
<tr>
<td>DFT_QUERYOPT</td>
<td>Default query optimization class. This parameter only takes effect on the database server and affects the Siebel Server components, such as Siebel EIM or Siebel Remote. Queries run through the UI are not affected by this setting. They take the value of the Siebel system preference DB2: Default Opt Level, or you can override them at the business component level by using Siebel Tools.</td>
<td>3</td>
</tr>
<tr>
<td>DBHEAP</td>
<td>Database heap (4 KB).</td>
<td>Automatic.</td>
</tr>
<tr>
<td>CATALOGCACHE_SZ</td>
<td>Catalog cache size (4 KB).</td>
<td>10000</td>
</tr>
<tr>
<td>LOGBUFSZ</td>
<td>Log buffer size (4 KB).</td>
<td>512</td>
</tr>
<tr>
<td>LOCKLIST</td>
<td>Maximum storage for lock list (4 KB).</td>
<td>Automatic.</td>
</tr>
<tr>
<td>SORTHEAP</td>
<td>Sort list heap (4 KB). Use lower values for development environments; use higher values for production. However, increasing this value can lead to insufficient memory on the database server. Also, this parameter might have to be set below the recommended range if you have a high number of Siebel users. Always monitor database server memory and performance to find the best setting for your environment.</td>
<td>Automatic.</td>
</tr>
</tbody>
</table>
### Table 26. IBM DB2 Configuration Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>STMTHEAP</td>
<td>Minimum setting. If necessary, increment this parameter in 1048 blocks of 4 KB.</td>
<td>Automatic or a fixed value.</td>
</tr>
<tr>
<td></td>
<td>For example, you might update the parameter setting using a command like this:</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>DB2 UPDATE DB CFG FOR SAMPLE USING STMTHEAP 8192 AUTOMATIC</code></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This value specifies 8192 times 4 KB (or 32 MB) for dynamic join enumeration and unlimited for greedy join enumeration.</td>
<td></td>
</tr>
<tr>
<td>MAXLOCKS</td>
<td>Percentage of lock lists for each application.</td>
<td>Automatic.</td>
</tr>
<tr>
<td>LOCKTIMEOUT</td>
<td>Lock time out (seconds).</td>
<td>300</td>
</tr>
<tr>
<td>CHNGPGS_THRESH</td>
<td>Changed pages threshold.</td>
<td>60</td>
</tr>
<tr>
<td>NUM_IOCLEANERS</td>
<td>Number of asynchronous page cleaners.</td>
<td>Automatic.</td>
</tr>
<tr>
<td>SEQDETECT</td>
<td>Sequential detect flag.</td>
<td>YES</td>
</tr>
<tr>
<td>DFT_PREFETCH_SZ</td>
<td>Default prefetch size (4 KB).</td>
<td>32</td>
</tr>
<tr>
<td>MAXAPPLS</td>
<td>Maximum number of active applications.</td>
<td>Automatic.</td>
</tr>
<tr>
<td>AVG_APPLS</td>
<td>Average number of active applications.</td>
<td>Automatic.</td>
</tr>
<tr>
<td>MAXFILOP</td>
<td>Maximum DB files open for each application.</td>
<td>500</td>
</tr>
<tr>
<td>LOGFILSIZ</td>
<td>Log file size (in 4 KB increments).</td>
<td>65535</td>
</tr>
<tr>
<td>LOGPRIMARY</td>
<td>Number of primary log files.</td>
<td>25 to 50</td>
</tr>
<tr>
<td></td>
<td>The value of LOGPRIMARY and LOGSECOND together must not exceed 256.</td>
<td></td>
</tr>
<tr>
<td>LOGSECOND</td>
<td>Number of secondary log files.</td>
<td>Up to 103</td>
</tr>
<tr>
<td></td>
<td>The value of LOGPRIMARY and LOGSECOND together must not exceed 256.</td>
<td></td>
</tr>
</tbody>
</table>
Guidelines for Setting Up IBM DB2 Buffer Pools

A buffer pool is an area of main system memory that is used for holding pages of data that have been fetched from the tablespace. In IBM DB2, each tablespace is associated with a buffer pool. Adding more space to a buffer pool enhances the performance of the database.

You must have at least three buffer pools for the Siebel tablespaces. You can use the default buffer pool to buffer data pages from all of the Siebel 4-KB tablespaces.

You must also create additional buffer pools with 16-KB and 32-KB page sizes for sorting and other SQL processing. A sample configuration is shown in Table 27 on page 345.

Table 27. Sample Buffer Pool Configuration

<table>
<thead>
<tr>
<th>Buffer Pool</th>
<th>Suggested Buffer Pool Size</th>
<th>Page Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUF4K</td>
<td>50% of available memory</td>
<td>4 KB</td>
</tr>
<tr>
<td>BUF16K</td>
<td>25% of available memory</td>
<td>16 KB</td>
</tr>
<tr>
<td>BUF32K</td>
<td>32 MB</td>
<td>32 KB</td>
</tr>
</tbody>
</table>

Different operating systems support different maximum amounts of IBM DB2 addressable memory. Depending on the memory configuration of a given server, the suggested pool sizes for BUF4K and BUF16K buffer pools might exceed these maximums, requiring you to allocate a smaller percentage. To determine the optimal buffer pool sizes, use IBM DB2 monitoring features.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

Guidelines for Creating IBM DB2 Tablespaces

The Siebel database installation process described in Chapter 5, "Installing the Siebel Database on the RDBMS," specifies the tablespaces in which to store your Siebel tables and indexes.
A Siebel database on IBM DB2 requires at least four tablespaces using database-managed space (DMS). Each tablespace can have one or more tablespace containers to store the data. Create a minimum of four DB2 tablespaces to hold your tables and indexes: a 4-KB, a 16-KB, and a 32-KB tablespace, for your various sized tables, and an additional tablespace to hold your indexes. The tablespaces must be created as database-managed space. Use a small, nonproduction environment for testing purposes.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

Observe the following guidelines when creating tablespaces:

- Create at least three IBM DB2 tablespaces for tables of various sizes, as shown in Table 28 on page 346. Using the default tablespace names is recommended.

- Create additional tablespaces as required for individual tables, such as S_DOCK_TXN_LOG. If you expect to have large, heavily used tables, then put these in their own tablespace.

- In addition, for performance reasons it is highly recommended that you create a separate tablespace for indexes. For example, you might create a tablespace named SIEBEL_IDX and using buffer pool BUF16K, with a page size of 16 KB, and with 3 GB allocated for this tablespace.

- Create at least 4-KB, 16-KB, and 32-KB temporary tablespaces to use for sorting and other SQL processing as described in the following topics. If you do not create them, then your database will experience serious performance and stability problems. Use system-managed space (SMS) for all of the temporary tablespaces. Make sure that these temporary tablespaces are expandable to 2 GB for storage purposes.

---

### Table 28. IBM DB2 Tablespace Values for Non-Unicode and Unicode-Enabled Databases

<table>
<thead>
<tr>
<th>DB2 Tablespace Name</th>
<th>Buffer Pool Name</th>
<th>Recommended Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Unicode Database</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIEBEL_4K</td>
<td>BUF4K</td>
<td>2 GB</td>
<td>Tablespace name for tables with row sizes less than 4006 bytes.</td>
</tr>
<tr>
<td>SIEBEL_16K</td>
<td>BUF16K</td>
<td>300 MB</td>
<td>Tablespace name for tables with row sizes from 4006 bytes through 16,293 bytes.</td>
</tr>
<tr>
<td>SIEBEL_32K</td>
<td>BUF32K</td>
<td>100 MB</td>
<td>Tablespace name for tables with row sizes greater than 16,293 bytes.</td>
</tr>
<tr>
<td><strong>Unicode-Enabled Database</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIEBEL_4K</td>
<td>BUF4K</td>
<td>4 GB</td>
<td>Tablespace name for tables with row sizes less than 4006 bytes.</td>
</tr>
<tr>
<td>SIEBEL_16K</td>
<td>BUF16K</td>
<td>700 MB</td>
<td>Tablespace name for tables with row sizes from 4006 bytes through 16,293 bytes.</td>
</tr>
<tr>
<td>SIEBEL_32K</td>
<td>BUF32K</td>
<td>100 MB</td>
<td>Tablespace name for tables with row sizes greater than 16,293 bytes.</td>
</tr>
</tbody>
</table>
If you intend to use the DB2 Load utility to populate EIM tables, then this method makes the tablespace in which EIM tables resides unavailable for the duration of the load. Placing the EIM tables in one or more separate tablespaces allows concurrent activity on the database while the load utility is running.

To override default storage parameters, such as the tablespace definitions, see "Guidelines for Overiding IBM DB2 Default Tablespaces for Database Objects" on page 347.

Record the tablespace names in Appendix A, "Siebel Deployment Planning Worksheet."

**Guidelines for Overriding IBM DB2 Default Tablespaces for Database Objects**

Siebel Business Applications provide the option of overriding the default storage parameters for the tablespaces in which specific tables or indexes are created. You created these tablespaces by using the instructions in "Guidelines for Creating IBM DB2 Tablespaces" on page 345. To override these defaults, edit the ddl.ctl file located in the `DBSRVR_ROOT/DB2UDB` directory.

**NOTE:** The ddl.ctl file must not be modified except by a qualified DBA.

For each Siebel table, you can specify a tablespace by using the Table Space parameter. In the following example, the tablespace for the table `S_APP_VIEW` is set to `DATA1`.

As provided, the .ctl file does not set storage parameters for the objects it creates, so they default to the parameter settings of the tablespaces in which they are created. However, the Table Space parameter works only under the following conditions:

- When the table does not yet exist (for example, when you are performing a new database installation).
- When the table must be rebuilt. In other words, when schema changes are made to the table such that an ALTER TABLE command is insufficient to implement the schema changes. In this case, the table must be dropped and recreated.

This topic is part of "Configuring an IBM DB2 Database for Siebel Business Applications" on page 338.

As shown in the following example, you can use the Table Space parameter to set storage parameters for specific tables:

```sql
[Object 219]
Type = Table
Name = S_APP_VIEW
Column 1 = ROW_ID VARCHAR(15) NOTNULL
Column 2 = CREATED TIMESTAMP NOTNULL DEFAULT %NOW%
Column 3 = CREATED_BY VARCHAR(15) NOTNULL
Column 4 = LAST_UPD TIMESTAMP NOTNULL DEFAULT %NOW%
Column 5 = LAST_UPD_BY VARCHAR(15) NOTNULL
Column 6 = DCKING_NUM NUMERIC(22,7) DEFAULT 0
Column 7 = MODIFICATION_NUM NUMERIC(10,0) NOTNULL DEFAULT 0
Column 8 = CONFLICT_ID VARCHAR(15) NOTNULL DEFAULT '0'
Column 9 = NAME VARCHAR(50) NOTNULL
```
Configuring the RDBMS

Configuring an IBM DB2 Database for Siebel Business Applications

Column 10 = DESC_TEXT VARCHAR(255)
Column 11 = LOCAL_ACCESS_FLG CHAR(1)
Table Space = data1

The following example illustrates how to override the defaults for specific tables and indexes:

[Object 7135]
Type = Table
Name = S_EVT_ACT
Group = Activity-1
Append Mode = Yes
Column 1 = ROW_ID WVARCHAR(15) NOTNULL
Column 2 = CREATED TIMESTAMP NOTNULL DEFAULT %NOW%
Column 3 = CREATED_BY WVARCHAR(15) NOTNULL
Column 4 = LAST_UPD_TIMESTAMP NOTNULL DEFAULT %NOW%
Column 5 = LAST_UPD_BY WVARCHAR(15) NOTNULL
Column 6 = DICKING_NUM NUMERIC(22,7) DEFAULT 0
Column 7 = MODIFICATION_NUM NUMERIC(10,0) NOTNULL DEFAULT 0
Column 8 = CONFLICT_ID WVARCHAR(15) NOTNULL DEFAULT '0'
Column 9 = ACTIVITY_UID WVARCHAR(30) NOTNULL DEFAULT 'x'
...
Column 166 = TODO_CD WVARCHAR(30)
Column 167 = USER_MSG_ID WVARCHAR(15)
Column 168 = WC_START_VIEW WVARCHAR(250)
Column 169 = WC_TYPE_CD WVARCHAR(30)

[Object 7136]
Type = Index
Name = S_EVT_ACT_F1
Table = S_EVT_ACT
Column 1 = CON_PRDINT_ID ASC
Index Space = S_EVT_ACT_TBSIDX

[Object 7137]
Type = Index
Name = S_EVT_ACT_F10
Table = S_EVT_ACT
Allow Reverse Scans = Yes
Column 1 = TARGET_OU_ID ASC
Column 2 = APPT_START_DT DESC
Column 3 = ROW_ID ASC

[Object 7138]
Type = Index
Name = S_EVT_ACT_F11
Table = S_EVT_ACT
Column 1 = PAR_EVT_ID ASC
Index Space = S_EVT_ACT_TBSIDX
Guidelines for Preventing IBM DB2 from Running Out of ODBC Statement Handles

IBM DB2 can quickly run out of ODBC statement handles, depending on the number of business objects your enterprise uses. Because it is difficult to know how many business objects your users use, increase this number automatically each time that you install the DB2 Client, or when you rebind database utilities. You can increase the number of CLI packages with the CLIPKG option for the bind command.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

To rebind the CLI packages

1. Navigate to sqllib/bnd in the IBM DB2 instance home directory, by using a method appropriate to your operating system.

2. Connect to the DB2 database, and enter a command similar to the following example, which sets the number of CLI packages to 30:
   
   ```
   db2 bind @db2cli.lst blocking all grant public clipkg 30
   ```

   Specify a value for CLIPKG that is sufficient to run your applications. For more information about the DB2 bind command and the CLIPKG option, see IBM DB2 documentation.

Guidelines for Increasing the Number of IBM DB2 User Processes Under AIX

When you reach about 400 concurrent database users running under AIX, the connection to IBM DB2 might fail. To avoid this problem, reset the parameter controlling the maximum number of user processes on your AIX server.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

To reset the parameter

1. Log on to the server as the AIX system administrator.

2. Navigate to $SIEBEL_HOME (the Siebel Server root directory), and source environment variables, by using one of the following commands, depending on the type of shell that you use:

   **C shell**
   
   ```
   source siebenv.csh
   ```

   **Bourne or Korn shell**
   
   ```
   . ./siebenv.sh
   ```

   **TIP:** Make sure that there is a space between the initial period and . ./siebenv.sh.
3. Execute the following command to review the options:

   smitty chgsys

4. Select Maximum Number of Processes and reset the default (512) to a larger number; for example, specify a value like 10,000 to avoid imposing an upper limit on the number of processes that a single user can spawn.

Guidelines for Determining IBM DB2 Log Space

You must create database transaction log files large enough to support various large transactions used by Siebel Business Applications. On IBM DB2, three parameters affect the amount of log file space reserved:

- **LOGFILSZ.** The size of the log file.
- **LOGPRIMARY.** The number of log files to preallocate and use.
- **LOGSECOND.** Extra log files that are allocated only if they are needed for a large transaction.

For a large system, allocate 4 to 8 GB of total log file space, as needed. Create 25 to 50 primary log files of 160 MB each, by setting the LOGFILSZ database configuration parameter to 40000 and the LOGPRIMARY parameter to a value between 25 to 50. To support very large transactions, set the LOGSECOND parameter to 128 minus the value of LOGPRIMARY. Smaller systems can use less log file space.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

Guidelines for Creating IBM DB2 Database Objects

Siebel Business Applications provide a sample script (CrBlankDB2UDBSiebelDEMO.sql), located in the `DBSRVR_ROOT/DB2UDB` directory. Use this script as a reference to help you create your own scripts for creating a blank Siebel database based on the requirements for your deployment.

Use the settings in the script as guidelines for your initial configuration. Your final settings will vary depending on the server hardware configuration, the number of users, and the type of workload. Use a small, nonproduction environment for testing purposes.

Before using this script, read the file CrBlankDB2UDBSiebelDEMOReadMe.txt. See also “Overview of Database Configuration” on page 327.

After you install the Database Configuration Utilities on the Siebel Server computer, as described in Chapter 3, “Installing Siebel Business Applications Server Modules,” you can modify the database table and index creation scripts to specify the tablespace names that you created for Siebel tables and indexes. For more information, see “Guidelines for Overriding IBM DB2 Default Tablespaces for Database Objects” on page 347.

Additional information about IBM DB2 configuration and tuning options is available from IBM, your hardware vendor, and other sources.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.
Guidelines for Managing IBM DB2 Fragmentation

No strict guidelines can be offered as to which tables and indexes might be fragmented, because of the variety in application and customer operation variables at any given customer site. However, DBAs must pay attention to the status of large or heavily used tables, because fragmentation of these tables can affect performance significantly. For a list of these Siebel tables, see Siebel Deployment Planning Guide.

**NOTE:** Do not reorganize S_ESCL_LOG, S_DOCK_INIT_ITEM, S_ESCL_ACTN_REQ, S_APSRVR_REQ, and all tables named S_DOCK_INITM_%% (in this table name, % is a digit), because these tables are defined to be in append mode.

This topic is part of “Configuring an IBM DB2 Database for Siebel Business Applications” on page 338.

Use the following strategy to manage table fragmentation:

- Reorganize any tables, as needed, by running `REORG TABLE`. For details on how to reorganize tables or indexes, see the following:
  - 477378.1 (Article ID) on My Oracle Support. This document was previously published as Siebel FAQ 2072.
  - 477402.1 (Article ID) on My Oracle Support. This document was previously published as Siebel FAQ 2073.

- After reorganizing tables, update statistics by using the `runstats` utility on any reorganized tables with the following minimum parameters:

  ```
  runstats on table tablename with distribution and detailed indexes all shrlevel change
  ```

  You might add other parameters as required, but use the shrlevel change parameter to allow concurrent access to your tables while `runstats` executes.

  **CAUTION:** The `runstats` utility overwrites statistics loaded by Siebel Business Applications. If you use `runstats`, then always execute `loadstats.sql` afterwards, by using either the DB2 command line processor or `odbcsql`. Otherwise, valuable statistics will be lost.

  To run `loadstats.sql` by using `odbcsql`, use the following command:

  ```
  odbcsql /s DATASOURCE_NAME /u username /p password /v separator siebel_root/
  dbservr/db2udb/loadstats.sql TABLEOWNER_NAME
  ```

Configuring Siebel Server Connectivity to the Siebel Database

Review this topic to configure connectivity to the Siebel database from the computer where you will install Siebel Server.

The database will already have been created, as described in this chapter.

For database connectivity software requirements, see the Certifications tab on My Oracle Support.
Configuring the RDBMS

Configuring Siebel Server Connectivity to the Siebel Database

**Oracle Database**

Verify that the Oracle Database connectivity software is installed on each computer, according to the Oracle Database documentation.

Siebel Server connections to the Oracle Database are made through dedicated server processes rather than through Oracle MTS; the use of MTS might negatively affect performance.

Use Oracle’s Easy Configuration utility to define a database alias with the proper connection information for your Siebel database. Record the connect string in Appendix A, “Siebel Deployment Planning Worksheet.” You specify this connect string when configuring the Siebel Enterprise.

**NOTE:** Siebel Business Applications support the Oracle 32-bit client. Therefore, if you have installed the Oracle 64-bit client on your Siebel Server, then you must include $ORACLE_HOME/lib32 in your definition for the LIBPATH (AIX), SHLIB_PATH (HP-UX), or LD_LIBRARY_PATH (Linux or Oracle Solaris) environment variable. (If you require $ORACLE_HOME/lib for non-Siebel applications, then make sure that $ORACLE_HOME/lib32 is placed in front of $ORACLE_HOME/lib.)

**IBM DB2**

Define a database alias with the proper connection information for your Siebel database. Record the connect string in Appendix A, “Siebel Deployment Planning Worksheet.” You specify this connect string when configuring the Siebel Enterprise.

You can use the DB2 command line processor to define your database alias. For more information, see IBM DB2 documentation.

**IBM DB2 for z/OS**

For information about configuring database connectivity for IBM DB2 for z/OS, see Implementing Siebel Business Applications on DB2 for z/OS.
12 Creating the Siebel Installation Image on the Network

This chapter describes how to obtain the Siebel installation media files and how to create a network image from which you install Siebel Business Applications software. It includes the following topics:

- About the Siebel Network Image on page 353
- Obtaining Siebel Installation Media Files on page 355
- Siebel Installation Media Contents on page 356
- Preparing to Create a Siebel Installation Image on page 358
- Creating a Siebel Installation Image on page 364
- Troubleshooting Siebel Image Creation on page 367

About the Siebel Network Image

For each Siebel Business Applications release representing the products that you have purchased, you run the Siebel Image Creator utility to create a Siebel network image, which is also called a Siebel image. All installations of Siebel Business Applications modules must be performed from a Siebel image. The Siebel Image Creator is also called the Network Image Creator. Unless otherwise stated in documentation for a particular release, each Siebel release includes Siebel Image Creator and you use this utility to create a version-specific Siebel image.

To install all of the Siebel CRM software for Siebel Innovation Pack 2017, you require an image of a single version: Siebel CRM version 17.0. You must create any network image as described in this chapter. For Siebel Enterprise Server (including Siebel Application Interface), Siebel Web Client, Siebel Tools, and any other modules you require, create a network image for version 17.0.

Installing these modules is a one-step task. The installers perform a complete installation of the current release. Siebel CRM version 17.0 is a base release. No network images for prior releases, such as Siebel CRM version 8.1.1 or version 8.2.2, are required or used. For existing deployments, you use the same installers to install the current release as a migration installation.

In addition to creating a Siebel image for Siebel CRM version 17.0, you will also create Siebel images for any Siebel Patchset releases that you will install, such as version 17.1, 17.2, and so on, where available. For more information about Siebel Patchset releases, see “About Siebel CRM Releases” on page 280.

You must allocate disk space on the network for the Siebel images that you will use as the source location for Siebel installations. Retain all of the Siebel images until they no longer apply. Also retain all of the Siebel media files, particularly the JAR files that you use to create the Siebel images.
Creating the Siebel Installation Image on the Network

The Siebel image is always of application type Siebel Industry Applications. The application type Siebel Business Applications (formerly used for Siebel Cross-Industry Applications) no longer applies. For more information about the implications of this change, see 549362.1 (Article ID) and related articles on My Oracle Support. This document often refers to Siebel Business Applications in a generic way that currently means the same thing as Siebel Industry Applications.

The remaining topics in this chapter describe how to obtain the Siebel media files from Oracle and how to create a Siebel image.

About the JAR File for the Local Database for Siebel Tools

You can install a new local database for Siebel Tools that uses Oracle Database XE. When you are creating the network image for the current release, also include the corresponding Siebel media JAR file. The JAR file is SBA_17.0.0.0.0_Base_Windows Oracle_XE_Local_Database_64_Bit.jar.

This JAR file provides the 64-bit local database for users of Microsoft Windows. When you select Siebel Tools in Image Creator, select Oracle XE Local Database 64 Bit. When you run Siebel Image Creator, the corresponding installer is placed into the following directory:

Siebel_Image\Windows\Server\Siebel_Tools\Disk1\stage

When users run the Siebel Tools installer, they can choose to include the local database, which is silently installed.

About the JAR File for the Sample Database for Siebel Web Client

You can install a new sample database for Siebel Web Client that uses Oracle Database XE. When you are creating the network image for the current release, also include the corresponding Siebel media JAR file. The JAR file is SBA_17.0.0.0.0_Base_Windows Oracle_XE_Sample_Database_64_Bit.jar.

This JAR file provides the 64-bit sample database for users of Microsoft Windows. When you select Siebel Web Client in Image Creator, select Oracle XE Sample Database 64 Bit. When you run Siebel Image Creator, the corresponding installer is placed into the following directory:

Siebel_Image\Windows\Server\Siebel_Web_Client\Disk1\stage

When users run the Siebel Web Client installer, they can choose to include the sample database, which is silently installed.

Related Topics

“Installation-Related Changes for Siebel Innovation Pack 2017” on page 21
“Installing and Using Oracle Database XE for the Local or Sample Database” on page 195
“About Siebel CRM Releases” on page 280
“General Requirements for Installing and Configuring Siebel Enterprise Server Components” on page 306
Obtaining Siebel Installation Media Files

In general, Oracle distributes the media files for Siebel Business Applications to customers as follows:

- The media files for Siebel CRM base releases, including Siebel Innovation Pack 2017, are provided as ZIP files on Oracle Software Delivery Cloud.
  
  https://edelivery.oracle.com

- The media files for Siebel Patchset releases are provided as ZIP files on My Oracle Support.
  
  https://support.oracle.com

**NOTE:** Whether particular releases are distributed as described above might change in some cases. If you cannot find your release, then check the Siebel Release Notes and other relevant information on My Oracle Support.

Use a standard unpacking tool such as WinZip to extract from each ZIP file a set of JAR files that serve as the Siebel media files. (Validate that the unpacking tool that you are using can handle files of the sizes of the Siebel media files.) These JAR files, which are compressed files using the Java Archive format, are processed when you run the Siebel Image Creator utility. Siebel Business Applications releases are also available on DVD.

**NOTE:** Siebel Business Applications software must be installed from a Siebel network image that was created using Siebel Image Creator. You cannot install directly from the ZIP files, JAR files, or DVDs.

Download the ZIP files representing the Siebel modules and languages that you require into one or more target locations. After you download the files, review the ZIP file sizes and validate the checksum values of the downloaded files against the published values. Also provided are the Siebel Image Creator executable program and the files it requires. Extract the JAR files from the ZIP files and place them in a single directory on your network. You run Siebel Image Creator from the JAR files directory. All of the JAR file names include the designation SBA (for Siebel Business Applications). For the full requirements for running Siebel Image Creator, see “Preparing to Create a Siebel Installation Image” on page 358.

**TIP:** If you obtain JAR files for more than one release, then it is generally recommended that you put them into a separate directory for each release, corresponding to the version number.

You use Siebel Image Creator to create a network image (also called a Siebel image) from which you subsequently install Siebel Business Applications. All installations for Siebel modules must be performed from the Siebel image, for each software version that supports a full installation of the current release, and for any applicable Siebel Patchset releases. The installation process is described in Chapter 3, “Installing Siebel Business Applications Server Modules,” and other chapters for installing particular Siebel modules.

For more information about the contents and organization of the Siebel media files, see “Siebel Installation Media Contents” on page 356.

Before you download the ZIP files to your network, see “Preparing to Create a Siebel Installation Image” on page 358.
Siebel Installation Media Files Provided on DVD
Alternatively, you can obtain Siebel media ZIP files on DVD. These files are the same as the ZIP files that you can obtain from Oracle Software Delivery Cloud.

Accessing the Siebel media files that are provided on DVD requires a compatible DVD drive (+R compatible). You must use an appropriate `mount` command to mount each DVD before you can access its contents.

**NOTE:** The Siebel DVD media require the Rock Ridge extensions. On some UNIX operating systems, such as HP-UX, the `mount` command might require the `-o rr` switch to properly mount Rock Ridge-compliant media. For details, see the `mount CDFS` command manpages for your operating system.

For each DVD, copy the ZIP media files representing the Siebel modules or languages that you require into one or more target locations. Review the ZIP file sizes before you copy them. Each DVD uses up to 5 GB of storage.

For more information about the contents and organization of the Siebel media files, see “Siebel Installation Media Contents” on page 356.

Before you copy the ZIP files to your network, see “Preparing to Create a Siebel Installation Image” on page 358.

Related Documents
For more information about the available patch releases for Siebel CRM, see 975515.1 (Article ID) on My Oracle Support.

For more information about finding and downloading patch releases for Siebel CRM, see 975535.1 (Article ID) on My Oracle Support.

For more information about the Siebel CRM installers and media files, see 1461640.1 (Article ID) on My Oracle Support.

Related Topics
“Siebel Installation Media Contents” on page 356
“Preparing to Create a Siebel Installation Image” on page 358

Siebel Installation Media Contents
For each Siebel Business Applications release, the software is provided through the base media for individual installable Siebel modules and media for associated Siebel language packs, for all of the applicable languages. Most Siebel modules require one or more language packs for successful installation. Siebel Business Applications deployments include installations from both base media and language media.

The media for ancillary third-party modules are also provided with the base media. Siebel installable modules that are based on third-party modules do not use Siebel language media.
As the Siebel image is created when you use Siebel Image Creator, each JAR file is extracted and the directories and files for the corresponding module are copied to the Siebel image location.

**NOTE:** This guide generally refers to Siebel *modules* to mean the same thing as the items selectable as *products* in Siebel Image Creator.

See also “Obtaining Siebel Installation Media Files” on page 355.

### Siebel Installation Base Media

The base media for Siebel Business Applications software are organized by operating system, product category, version number, and product (module) name. For most of the Siebel modules, language support is delivered separately through the language media. The operating systems are as follows:

- Microsoft Windows
- IBM AIX
- HP-UX
- Linux
- Oracle Solaris (for SPARC)

For detailed support information about the listed operating systems, see the Certifications tab on My Oracle Support.

The base media for the listed operating systems are provided as described in “Obtaining Siebel Installation Media Files” on page 355. Note the following points regarding the organization of the base media files:

- For Siebel Enterprise Server, Siebel Application Interface, Siebel Web Client, and Siebel Tools, the network image for the current release, Siebel CRM version 17.0, is the base media.

- For client modules, the base, language, and third-party media files are available for Windows only, and might apply for customers on all of the server operating systems. Example client modules include Siebel Web Client (Siebel Mobile Web Client) and Siebel Tools.

  **NOTE:** When you run Siebel Image Creator, you must select the Windows operating system to be able to select any Windows-based modules. For more information about cross-platform issues when creating Siebel images, see “Cross-Platform Issues When Creating Siebel Image Directories” on page 361.

- For server modules, the base, language, and third-party media files are included with the base media for your operating system, where applicable. The media files for such modules are provided with the UNIX base media where these modules run natively on Windows and are not available on UNIX.

  **NOTE:** When you run Siebel Image Creator, you must select the Windows operating system to be able to select any Windows-based modules.
Creating the Siebel Installation Image on the Network

Preparing to Create a Siebel Installation Image

Third-party media files provide separately installable third-party software modules that work with Siebel Business Applications. In this context, third-party products might also include non-Siebel products from Oracle. These third-party modules are not installed through Siebel installers, and do not use language media. Documentation is provided in this guide (the Siebel Installation Guide for the operating system you are using) or in other books on the Siebel Bookshelf. See also the Certifications tab on My Oracle Support.

Language Media

The language media, also known as language extension packs or language packs, provide language support for Siebel Business Applications.

When you run Siebel Image Creator to create a Siebel image or to add modules to an existing Siebel image, you specify the languages for all of the modules that you include in the Siebel image. Alternatively, you can also add languages to all of the modules in an existing Siebel image.

When you install Siebel modules, you can include languages when you install. You can also install additional languages later. It is strongly recommended that you install and deploy, or at least install, all of the languages that you expect to require, on each physical server.

For Siebel Tools, a base JAR file and a U.S. English (ENU) language JAR file are provided. Support for other languages is provided through separate JAR files. When using Siebel Image Creator to add Siebel Tools to your Siebel image, you must select ENU and any other desired languages to proceed with extracting the base JAR file for Siebel Tools. When you later install Siebel Tools, you must select U.S. English (ENU) and optionally select any other languages that are part of the Siebel image.

For more information about the supported languages and about deploying languages, see:

- “Installing and Deploying Siebel Business Applications with Multiple Languages” on page 163
- For Siebel CRM language support, Unicode support, and legacy code page support for supported databases, see 1513102.1 (Article ID) on My Oracle Support.
- Certifications tab on My Oracle Support
- Siebel Global Deployment Guide

Preparing to Create a Siebel Installation Image

Before you create a Siebel installation image on your network, review the issues described in the following information:

- "Determining the Locations for the Siebel Media Files and the Siebel Image” on page 359
- "Requirements for the Siebel Image Directories” on page 361
- "Cross-Platform Issues When Creating Siebel Image Directories” on page 361
- "Requirements for Running Siebel Image Creator” on page 362
Determining the Locations for the Siebel Media Files and the Siebel Image

This topic is part of “Preparing to Create a Siebel Installation Image” on page 358.

It is recommended that you download or copy all of the Siebel media files to a central location on your network where you have sufficient disk space. Typically, this location would not be the same location where you will create your Siebel image. For example, for Siebel CRM version 17.0, you might create the directory Siebel_media_17.0, and then create subdirectories ZIP_17.0 and JAR_17.0, in which you would store the ZIP files and JAR files that you use to create the Siebel image for files of Siebel CRM version 17.0. Also place the Siebel Image Creator files in the JAR files directory and run the utility from there.

The default top-level names used by Siebel Image Creator for the Siebel image directory are C:\Siebel_Install_Image on Windows or /Siebel_Install_Image on UNIX. For example, if you are creating a Siebel image for Siebel CRM version 17.0 on a UNIX computer, then you might create a directory /Siebel_Install_Image, in which you store your Siebel images. In this example, when you run Siebel Image Creator, specify /Siebel_Install_Image as the top-level directory.

Siebel Image Creator automatically creates a subdirectory (such as 17.0.0.0) under the specified top-level directory. This version-specific directory contains the installable Siebel modules, organized by operating system, that you choose to include in the Siebel image.
Your directories for the Siebel image, the ZIP files, and the JAR files might be as shown in Table 29 on page 360. For other Siebel CRM releases, substitute the appropriate version numbers. As needed, you can create similar directories later for ZIP files and JAR files for subsequent Siebel CRM releases, including Siebel Patchset releases.

Table 29. Siebel Media Files and Image Directories

<table>
<thead>
<tr>
<th>Directory Function</th>
<th>Example Directory Locations</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZIP files directory</td>
<td>/Siebel_media_17.0/ZIP_17.0</td>
<td>Before you run Siebel Image Creator, it is recommended to create a version-specific subdirectory like this example, to contain the ZIP files that you obtain from Oracle.</td>
</tr>
<tr>
<td>JAR files directory</td>
<td>/Siebel_media_17.0/JAR_17.0</td>
<td>Before you run Siebel Image Creator, it is recommended to create a version-specific subdirectory like this example, to contain the JAR files and the Siebel Image Creator files. (You must extract the JAR files from the ZIP files.) <strong>NOTE:</strong> You will run Siebel Image Creator from the JAR files directory. For the full requirements for running Siebel Image Creator, see “Preparing to Create a Siebel Installation Image” on page 358.</td>
</tr>
<tr>
<td>Siebel image directory</td>
<td>/Siebel_Install_Image/17.0.0.0</td>
<td>When you run Siebel Image Creator, the utility creates a version-specific subdirectory like this, which contains the Siebel image: the installer files for each applicable module.</td>
</tr>
</tbody>
</table>

**NOTE:** Optionally, after you create the Siebel image in a central location, you might choose to copy a module-specific subdirectory of the Siebel image to a computer where you will install this module. Doing so can significantly improve performance during the installation, particularly for installations of Siebel Enterprise Server or Siebel Application Interface. For additional recommendations or requirements for installers, see Oracle Universal Installer documentation on Oracle Technology Network. See also Chapter 10, “Requirements for Installing and Configuring Siebel Business Applications.”
Requirements for the Siebel Image Directories

This topic is part of “Preparing to Create a Siebel Installation Image” on page 358.

The directory in which you create a Siebel image, or the directory that you specify as the location for Siebel media files (JAR files), must meet the following requirements:

- The user creating the Siebel image must have write permission in the Siebel image directory.
  
  Users who have to access the Siebel image directory in order to perform installations must have read and execute permissions. Users who have to modify files to support unattended installation mode must also have write permission.

  See also the relevant topics in “Planning Your Siebel Deployment” on page 283.

- Any directory that you specify for creating a Siebel image must contain sufficient disk space for all of the Siebel modules and languages that you include in the Siebel image.

- When you specify an existing network image directory into which you will add modules or languages, you must specify a top-level directory that contains a valid network image for the JAR files that you are using. For example, if you are adding languages to a Siebel image for the current release, Siebel CRM version 17.0, then the top-level directory that you specify, such as /Siebel_Install_Image, must contain a subdirectory 17.0.0.0, which must contain an existing Siebel image for the corresponding release. Siebel Image Creator cannot add modules or languages to the network image unless you specify a valid top-level directory.

- Any directory that you specify for creating a Siebel image must follow the conventions described in “File and Directory Naming Conventions” on page 297. For example, on Windows, a directory name must not contain spaces or number signs (pound or hash signs).

- Do not move or rename any Siebel image subdirectories. Create each Siebel image and all of its directories by running Siebel Image Creator. It is acceptable to move or rename the top-level directory in which the Siebel image was created.

Cross-Platform Issues When Creating Siebel Image Directories

This topic is part of “Preparing to Create a Siebel Installation Image” on page 358.

Each Siebel image that you create contains directories representing the specified operating system platforms that you will use, such as Windows, AIX, and so on. The Siebel image itself can reside on any supported operating system. Siebel Image Creator can run natively on Microsoft Windows, IBM AIX, HP-UX, Linux, and Oracle Solaris.

Many customers support multiple operating systems. For example, a customer who installs server modules on UNIX still might have to install client or server modules that run only on a supported Microsoft Windows operating system, such as Siebel Web Client (Siebel Mobile Web Client) and Siebel Tools. For more information, see “Siebel Installation Media Contents” on page 356.
If you support multiple operating systems (such as Windows and one of the supported UNIX operating systems), then use one or more of the following strategies in creating your Siebel images:

- Create a single multi-platform Siebel image on one of your operating systems. Use a cross-platform networking tool, such as Samba, to make the Siebel image accessible from operating systems other than the one where the Siebel image was created.

  For example, when you run Siebel Image Creator on Windows, include Windows and all of the applicable UNIX operating systems and include all of the modules for applicable operating systems. Before you run Siebel Image Creator, make sure that you have located the JAR files as described in “Determining the Locations for the Siebel Media Files and the Siebel Image” on page 359. In order to install modules on UNIX computers (in this example), users who perform installations must be able to access the Windows-based Siebel image files.

  This approach is generally recommended, because it consolidates all of the modules and applicable operating systems in a single Siebel image.

- On each applicable operating system, create a separate Siebel image that includes the modules that will be installed on that operating system.

  For example, you might run Siebel Image Creator on Windows and include only the Windows operating systems and the modules that will be installed on Windows. Then you might run Siebel Image Creator on Oracle Solaris and include only Oracle Solaris and the modules that will be installed on that operating system. Before you run Siebel Image Creator, make sure that you have obtained the JAR files for the applicable operating system, as described in “Determining the Locations for the Siebel Media Files and the Siebel Image” on page 359. In order to install the Siebel modules (in this example), no cross-platform tool would be necessary to access the Siebel image files, because the files for each module already reside on the operating system on which the installations will be performed.

### Requirements for Running Siebel Image Creator

This topic is part of “Preparing to Create a Siebel Installation Image” on page 358.

Before you run Siebel Image Creator for one of the supported operating systems, consider the following requirements:

- Make sure that you have extracted all of the JAR files from the ZIP files.

- You must place the Siebel module JAR files and the Siebel Image Creator files in the appropriate directory or directories, as described in “Determining the Locations for the Siebel Media Files and the Siebel Image” on page 359.

  You must place at least one JAR file representing a Siebel module in the directory where you run Siebel Image Creator, referred to here as the JAR files directory. Doing so enables the utility to determine the version of the Siebel image that is to be created. For example, run Siebel Image Creator in the JAR files directory for Siebel CRM version 17.0 to create a Siebel image for that version. If the directory from which you run Siebel Image Creator contains JAR files with multiple versions, then the utility prompts for the version when you start it.
It is strongly recommended that all of the Siebel module JAR files for the same version be located in the same directory (the JAR files directory). Optionally, some JAR files might be located in one or more other directories that you specify while running Siebel Image Creator.

Siebel Image Creator includes the following files, which must be present in the JAR files directory where you run the utility. Do not modify these files.

- The Siebel Image Creator executable program for the operating system on which you run the utility: snic.bat (for Windows) or snic.sh (for UNIX)
- snic.jar
- siebel.ini

Siebel Image Creator also includes the following template response files, which you can edit and use to run the utility in unattended mode:

- sample_snic_windows.rsp
- sample_snic_unix.rsp

You can run Siebel Image Creator in GUI mode or in unattended mode. The following requirements apply only to running the utility in unattended mode:

- To run Siebel Image Creator in unattended mode, you must use the U.S. English (ENU) locale.
- When using unattended mode, you can only create a new Siebel image. You cannot add languages or products to an existing Siebel image.
- To run Siebel Image Creator in unattended mode, you must use a template response file provided by Oracle that you have edited for your purposes. These files are named sample_snic_windows.rsp and sample_snic_unix.rsp. Example values are shown in the template response files. For example, you might specify values like the following, from the file sample_snic_windows.rsp:
  ```plaintext
  imageVersion="17.0.0.0"
  imageDirectory="Siebel_Install_Image"
  platformList={Windows}
  productList={Siebel_Tools}
  languageList={ENU}
  ```

- Java Runtime Environment (JRE) must be installed on any computer where you will run Siebel Image Creator. Also, the JAVA_HOME environment variable must be set to point to the JRE installation location at the time that you run Image Creator (for example, C:\Program Files\Java\jre8 on Windows or /usr/java8_64 on AIX). For supported version information, see the Certifications tab on My Oracle Support.

- A Siebel Image Creator session might take a long time to complete. While the files are being extracted or copied, you cannot click Cancel to cancel a Siebel Image Creator session. Be sure of your selections before you begin creating the Siebel image.

- For any issues that you encounter while running Siebel Image Creator as described in “Creating a Siebel Installation Image” on page 364, see “Troubleshooting Siebel Image Creation” on page 367.
Creating the Siebel Installation Image on the Network

Creating a Siebel Installation Image

You use Siebel Image Creator to create the Siebel installation image (the Siebel image) on the network for all of the Siebel CRM modules that were delivered through the Siebel media files.

The procedure in this topic describes running Siebel Image Creator to create a new Siebel image or running the utility to add modules or languages to an existing Siebel image. When you add modules or languages to an existing Siebel image, some of the steps do not apply.

**NOTE:** You can run Siebel Image Creator in GUI mode or unattended mode. If you will run Siebel Image Creator in unattended mode, then you must first prepare a response file. For more information about running Siebel Image Creator in unattended mode, see “Requirements for Running Siebel Image Creator” on page 362.

See also “Troubleshooting Siebel Image Creation” on page 367.

### To create a Siebel installation image

1. Review the information that is presented in “Obtaining Siebel Installation Media Files” on page 355 and “Siebel Installation Media Contents” on page 356.

2. Review the issues that are described in “Preparing to Create a Siebel Installation Image” on page 358. In particular, determine where the Siebel JAR files will reside and where you will create the Siebel image.

3. Obtain the Siebel media ZIP files, as described in “Obtaining Siebel Installation Media Files” on page 355. If you download the files, then validate the checksum values of the downloaded files against the published values. Then extract the JAR files from the ZIP files.

4. Place the JAR files into one or more version-specific directories that you created for the purpose. For example, for Siebel CRM version 17.0, you might place the Siebel CRM version 17.0 JAR files into a directory like `JAR_17.0`. Also place the files for Siebel Image Creator in this directory. For more information, see “Determining the Locations for the Siebel Media Files and the Siebel Image” on page 359.

5. Log on to the server computer on which you will run Siebel Image Creator.

6. Open a shell window and navigate to the directory where you placed the Siebel media JAR files and the Siebel Image Creator files. For example, for Siebel CRM version 17.0, navigate to a directory like `/export/home/Siebel_Install_Image/JAR_17.0`.

7. If it is not already set, then set the JAVA_HOME environment variable to point to the Java Runtime Environment installation location.

8. To run Siebel Image Creator in unattended mode from the JAR files directory, first prepare a response file, and then run a command like the following:

   ```bash
   ./snic.sh -silent -responseFile response_file
   ```

   The Siebel image is created, according to the settings you made in the response file, as described in “Requirements for Running Siebel Image Creator” on page 362. Go to Step 19 on page 367.
9 To run Siebel Image Creator in GUI mode from the JAR files directory, run the following command:

snic.sh

Siebel Image Creator displays a welcome message.

10 Click Next to proceed.

11 Specify whether you are creating a new Siebel image (or adding modules to an existing Siebel image) or adding languages to an existing Siebel image. Click Next.

12 If you are creating a new Siebel image, then specify the directory in which the version-specific image directory is to be created. For example, navigate to a directory like /export/home/Siebel_Install_Image. You can enter a directory (which must be an absolute path) or click Browse to specify the directory. Click Next.

When you specify the network image directory for adding modules or languages, you must specify the top-level directory containing the valid network image for the JAR files that you are using. For more information, see “Requirements for the Siebel Image Directories” on page 361.

For guidelines for creating the directories for Siebel images, see “Preparing to Create a Siebel Installation Image” on page 358.

13 If applicable, then specify the version for the Siebel image.

The Siebel image version automatically derives from the presence of one or more Siebel media JAR files for Siebel modules in the directory from which you are running Siebel Image Creator. If JAR files exist for multiple versions, such as Siebel CRM version 17.0 and another version, then specify one of the versions shown.

The version determines the version-specific subdirectory in which the Siebel image is created, such as 17.0.0.0. Or, the version specifies an existing Siebel image to be added to.

If you are adding modules to an existing Siebel image, then go to Step 14 on page 365.

If you are adding languages to an existing Siebel image, then go to Step 16 on page 366.

14 Specify one or more operating systems to include in your version-specific Siebel image. You can specify Windows, AIX, HP-UX, Linux, and Oracle Solaris. Click Next.

You can specify one or more operating systems to include in your Siebel image. In general, include all of the operating systems for which you will install one or more Siebel modules. You can add operating systems and modules to the Siebel image later. For more information, see “Cross-Platform Issues When Creating Siebel Image Directories” on page 361.

For more information about the contents of the Siebel media, see “Siebel Installation Media Contents” on page 356.
15 Specify the Siebel modules to include in your version-specific Siebel image. Click Next.

Each module can be selected by clicking its check box. The listed modules represent the superset of the client and server modules, including third-party modules, that are supported by this version of Siebel Image Creator for all of the applicable operating systems.

The Siebel image will include the selected modules for each applicable operating system that you specified in Step 14 on page 365. Some modules do not apply to certain operating systems. For example, Siebel Tools applies to Windows only.

For more information about the contents of the Siebel media, see “Siebel Installation Media Contents” on page 356.

16 Specify all of the languages that you want to include in the Siebel image. When you are ready to begin creating the Siebel image based on your selections, click Next.

The selected languages are included for each selected or existing module, where they apply. The languages do not apply to some modules, such as third-party modules. For information about Siebel Tools and the U.S. English language pack, see “Siebel Installation Media Contents” on page 356.

NOTE: If you are adding modules to an existing Siebel image, then you must specify all of the languages that were previously included in the Siebel image, in order to be able to install these modules correctly.

Siebel Image Creator now processes all of the Siebel media JAR files in the current directory, and includes all of the selected modules and languages in the version-specific Siebel image subdirectory of the directory that you specified in Step 12 on page 365. Siebel Image Creator displays the current processing status, as follows:

- If all of the Siebel media JAR files matching your selections were found in the current directory, then Siebel Image Creator completes creating or adding modules or languages to the Siebel image. Go to Step 18 on page 367.
- If one or more of the JAR files matching your selections were not found in the current directory, then the utility prompts for the location of the next file. Go to Step 17 on page 366.

17 If Siebel Image Creator cannot locate a JAR file matching your selections, then specify the location of the indicated Siebel media JAR file. You can enter a directory (which must be an absolute path) or click Browse to specify the directory. Click Next.

For example, for a Siebel CRM version 17.0 Siebel image, assume that you selected Windows and Siebel Tools, but Siebel Image Creator could not locate the file SBA_17.0.0.0_Base_Windows_Siebel_Tools.jar. Specify the location of this file, and click Next. If the file is found, then it is processed and the module that it represents is included in your Siebel image.

If you do not have the current media JAR file, then you might have to obtain the required Siebel media from Oracle before proceeding. Place the JAR file in the appropriate directory before clicking Next. If all of the remaining Siebel media files matching your selections were found in the current directory, then Siebel Image Creator completes creating or adding the modules or languages to the Siebel image.
If you decide that you do not require the module or language component represented by the current media file to be included in the Siebel image at this time, then click Next again. You are prompted to either skip the file (click Skip) or look for the file in another directory (click Select). You might have to rerun Siebel Image Creator later to add items that you previously skipped because of missing JAR files. See also “Troubleshooting Siebel Image Creation” on page 367.

After all of the modules or languages have been added to the Siebel image, or skipped, Siebel Image Creator indicates that the Siebel image has been successfully created. Click Finish.

After the Siebel image has been created, review the products.txt file to validate the modules that were included in the Siebel image. This file is located in the main directory for the Siebel image, such as Siebel_Install_Image/17.0.0.0.

Troubleshooting Siebel Image Creation

When you run Siebel Image Creator, the utility validates the integrity of each JAR file that it processes as it creates the Siebel image. Consequently, it is unnecessary to validate the JAR files beforehand.

If a JAR file is invalid for some reason, then Siebel Image Creator displays a message to this effect. Obtain a new copy of the JAR file and rerun Siebel Image Creator in order to include the content in the Siebel image. Rerunning Siebel Image Creator might also be necessary in some other cases identified in this topic.

When you run Siebel Image Creator and create a Siebel image successfully, the files in the Siebel image have the same timestamp as the corresponding files that were included in the JAR files.

When you rerun Siebel Image Creator, it will not replace any files that have the same or a newer timestamp.

Rerunning Siebel Image Creator might be necessary in the following cases:

- If you have deleted a Siebel image or any part of the Siebel image by mistake. In this case, remove all of the files generated by Siebel Image Creator for any affected Siebel modules, then run Siebel Image Creator again to recreate the Siebel image for those modules.
- If a JAR file is invalid and you have since obtained a new version of the JAR file.
- If you skipped a missing JAR file during a Siebel Image Creator session and have since obtained the missing JAR file.
- If any Siebel module was incompletely processed by Siebel Image Creator. In this case, remove all of the files generated by Siebel Image Creator for the affected module, then run Siebel Image Creator again to recreate the Siebel image for this module.

**TIP:** Keep track of the operating systems, Siebel modules, and languages in your Siebel image for the applicable version. If you have to rerun Siebel Image Creator, then reselect the options that you require to complete the Siebel image.

You might also have to run Siebel Image Creator multiple times if you intentionally processed only some of the Siebel modules that you require and have to process the JAR files in multiple batches.
Siebel Image Creator Logging

Siebel Image Creator logs details about its processing in the file log.txt, which is created in the top-level directory that you specified for the Siebel image (for example, /export/home/Siebel_Install_Image).

Review the log file to identify where problems occurred when you created the Siebel image, such as in the following cases:

- Siebel Image Creator logs a message like the following after each JAR file has been successfully extracted. (If a JAR file is only partially extracted, then this message is not written.)
  
  Extracted SBA_17.0.0.0_Base_Windows_Siebel_Enterprise_Server.jar

- Siebel Image Creator logs a message like the following when a JAR file has been skipped.
  
  Skipped JAR_file_name - Please run Siebel Image Creator again and add module_name to the network image, once all image files are available.

Installer Errors and the Siebel Image

You must validate that the Siebel image was created correctly for all of the applicable modules. However, installation errors sometimes indicate problems in the Siebel image.

If, when you run a Siebel installer, errors are returned about missing or corrupt files, then remove all of the files generated by Siebel Image Creator for any module that was incompletely processed, make sure that you have all of the JAR files that you require (including those representing third-party files), and then run Siebel Image Creator again to recreate the Siebel image for that module.

For installation instructions, see Chapter 3, “Installing Siebel Business Applications Server Modules,” and other chapters for installing particular Siebel modules.

For installation requirements, see Chapter 10, “Requirements for Installing and Configuring Siebel Business Applications.”

For installation troubleshooting information, see Chapter 8, “Verifying and Troubleshooting Your Installation.”
This appendix provides the Deployment Planning Worksheet. It includes the following topics:

- **About the Deployment Planning Worksheet on page 369**
- **Team Lead Summary on page 370**
- **Siebel Enterprise Server Names and Installation Directories on page 370**
- **Siebel Accounts, Host Names, and Static IP Addresses on page 371**
- **Cluster Deployment Data on page 372**
- **Ports and RDBMS Details Data on page 373**

### About the Deployment Planning Worksheet

The topics that follow provide the Deployment Planning Worksheet for installing Oracle’s Siebel Business Applications product family. This worksheet is an integral part of the installation process.

Before proceeding with installation-related tasks, make a copy of the worksheet topics that follow, or create your own worksheet to capture all of the data that you need to record. The deployment team fills out the first section. Members of the team fill out the information in the sections for which they are responsible. As you work through preparation steps, record the information that you will need while installing and configuring Siebel Business Applications.

In various places in this book, you are prompted to refer to the Deployment Planning Worksheet for specific information about your site and deployment. You also use it to record other important information for future installations, upgrades, reconfiguration, and expansion of your deployment.

Each time that you install new Siebel CRM software in your deployment, record the relevant data in your Deployment Planning Worksheet. Use a new worksheet for each Siebel CRM environment or Siebel CRM deployment.

**CAUTION:** Customers are responsible for ensuring the security of sensitive information, such as account passwords, that might be recorded in this worksheet or in similar documents or information stores created by or employed by the customer.
Team Lead Summary

Section 1: Deployment Team Members

<table>
<thead>
<tr>
<th>Deployment Team Lead</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel Administrator</td>
<td></td>
</tr>
<tr>
<td>System Administrator</td>
<td></td>
</tr>
<tr>
<td>Database Administrator</td>
<td></td>
</tr>
</tbody>
</table>

Section 2: Deployment Overview

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Version</th>
<th>Codepage or Unicode</th>
<th>Owner</th>
<th>Number of Users</th>
<th>Server Operating System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Server (RDBMS: )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Gateway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Server</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Siebel Application Interface</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Enterprise Cache</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Constraint Engine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Siebel Enterprise Server Names and Installation Directories

Make a copy for each Siebel Enterprise Server that you install.

ODBC data sources are created automatically by the Siebel Enterprise Server installer. For more information, see "Planning RDBMS Installation and Configuration" on page 286.

Section 3: Server Names

<table>
<thead>
<tr>
<th>Siebel Enterprise Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ODBC Data Source Name</td>
<td></td>
</tr>
<tr>
<td>Primary Language</td>
<td></td>
</tr>
</tbody>
</table>
Siebel Accounts, Host Names, and Static IP Addresses

Make a copy for each Siebel Enterprise Server that you install.

**NOTE:** Requirements vary for user accounts mentioned in this topic. For example, the anonymous user for employee applications must be defined as an employee within the Siebel database. For more information, see "Requirements for Configuring Anonymous Users for the Siebel Application Interface" on page 318.

### Section 4: Siebel Account Information

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Login or User ID</th>
<th>Password</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel Service Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Administrator</td>
<td></td>
<td>SADMIN</td>
</tr>
<tr>
<td>Employee Anonymous User</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Anonymous User</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security User</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Section 5: Host Name and Static IP Addresses

<table>
<thead>
<tr>
<th>Server Name</th>
<th>Static IP or Host Name</th>
<th>Subnet Mask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel Gateway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Server</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Cluster Deployment Data

Make a copy for each partition of your shared disk. (Choice of resource groups clustered is optional.)

## Section 6: Cluster Resource Groups

<table>
<thead>
<tr>
<th>Resource Group</th>
<th>Network Name</th>
<th>IP Address or Computer Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel Gateway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel File System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Database</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Section 7: Cluster Configuration

<table>
<thead>
<tr>
<th>Server Type</th>
<th>Network Host Name</th>
<th>Cluster IP Address</th>
<th>Resource Group IP Address</th>
<th>Subnet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siebel Gateway</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Node 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siebel Gateway</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<th>Cluster Group</th>
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<th>Heartbeat Subnet</th>
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Section 8: Port Numbers

Make a copy for each Siebel Enterprise Server that you install.

**NOTE:** If your database is IBM DB2 for z/OS, then use the Deployment Planning Worksheet dedicated to the Siebel database installation that is provided in *Implementing Siebel Business Applications on DB2 for z/OS*.

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