# Siebel Server Sync Guide

Version 7.8, Rev. C
May 2012

**ORACLE**®

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# 1 What's New in This Release

## What's New in Siebel Server Sync Guide, Version 7.8, Rev. C

No new features have been added to this guide for this release. This guide has been updated to reflect only product name changes.

## What's New in Siebel Server Sync Guide, Version 7.8, Rev B

Table 1 lists changes described in this version of the documentation to support release 7.8 of the software.

Table 1.    What's New in Siebel Server Sync Guide, Version 7.8, Rev B

| Topic | Description |
|---|---|
| "About SSSE Contact Record Matching" on page 25 | New topic describing the IgnoreContactMatching parameter and the contact record matching process. |
| "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46<br><br>"Installing Exchange 2007 System Management Tools" on page 47<br><br>"Installing Messaging Application Program Interface" on page 48<br><br>"Installing MSXML 4.0 SP2 (for Microsoft Exchange 2007)" on page 48<br><br>"Checking Domain Controller Properties (for Microsoft Exchange 2007)" on page 48 | New topics. Microsoft Exchange 2007 is supported in the current release of Siebel Business Applications. |
| Verifying SSSE Component Definitions | Deleted topic. The tasks outlined in this topic are not applicable to release 7.8 of Siebel Business Applications. |
| "Configuring Credentials Using a Script (Microsoft Exchange 2007)" on page 61 | New topic. If you are using Microsoft Exchange 2007, use the ssse_exchange2k7_permissions.ps1 script to grant access to other users' mailboxes for the Exchange Connector application user. |

Table 1.     What's New in Siebel Server Sync Guide, Version 7.8, Rev B

| Topic | Description |
|-------|-------------|
| "Configuring Credentials Using a Script (Microsoft Exchange 2000 or 2003)" on page 61 | Revised topic. When you run the ssse_exchange2k3_permissions.vbs script, you can specify whether you want to grant the Microsoft Exchange service account full access permission to the mailboxes of a specified user, or to a list of users. |
| Configuring the Database for SSSE | Deleted topic. It is not necessary to reinstall the database triggers for SSSE after running the Generate Triggers server component. |
| "Configuring the Exchange Connector DCOM Settings" on page 70 | Revised topic. The user account under which the Exchange Connector application runs must be a local administrator on the Exchange Connector computer. |
| "Tuning SSSE Siebel Profile Parameters" on page 77 | Revised topic. The AddAttendee parameter allows you to specify that when Siebel Server Sync for Microsoft Exchange Server (SSSE) synchronizes data relating to appointment attendees, the most current data in Microsoft Outlook takes precedence over the related data in the Siebel application. |
| "Using Fully Qualified Email Addresses" on page 88 | New topic. You can configure the UserMailBoxIDSource Exchange Connector parameter to specify the method used to construct the URL that is used to access a user's Microsoft Exchange mailbox. |
| "About Configuring SSSE for Multiple Active Directory Forest Environments" on page 90<br><br>"Process of Configuring SSSE for Multiple Active Directory Forests" on page 91 | New topics. You can configure SSSE to run in Microsoft Exchange environments that include more than one Active Directory forest. |
| "Creating PIMSI Dispatcher User Groups" on page 99 | New topic. You can configure the PIMSI Dispatcher to create PIMSI Engine tasks for specific groups of users at a time, rather than for all users. |
| "Configuring Support for Items Archived in Microsoft Outlook" on page 102 | New topic. You can maintain Siebel CRM records for items that have been archived from Microsoft Outlook by specifying a value for the ArchiveGracePeriod parameter. |
| "Configuring Recurring Appointments" on page 103 | New topic. You can configure SSSE to regularly create appointments in your Siebel application for Microsoft Outlook appointments that have a Meeting Repeat frequency that is not supported in Siebel Business Applications. |
| "Enabling and Disabling Contact Record Matching" on page 113 | New topic. You can enable or disable contact record matching during SSSE synchronization by setting the appropriate value for the IgnoreContactMatching parameter. |

Table 1.    What's New in Siebel Server Sync Guide, Version 7.8, Rev B

| Topic | Description |
|---|---|
| "Setting Initial Extract Start Dates for Users" on page 124 | New topic. The administrator can specify initial extract start dates for individual users. |
| "Implementing Import-Only Synchronization of Calendar Records" on page 124 | New topic. If you implement the Full Sync synchronization option for the Calendar domain, you can choose to implement one-way synchronization from Microsoft Exchange to your Siebel application for calendar records. |
| "About Setting Calendar and Task Record Synchronization Options" on page 125<br><br>"Implementing Opt-In Synchronization for Calendar and Task Records" on page 126<br><br>"Skipping Private Calendar or Task Records During Synchronization" on page 128 | New topics. If you enable the Full Sync synchronization option for the Calendar or To Do domains, the Opt-in feature and the Ignore private records feature provide flexibility in determining whether or not Microsoft Outlook calendar and task records are synchronized with the Siebel application. |
| Reinitializing an SSSE User | Deleted topic. It is not necessary to reinitialize a user after the initial extraction has been performed. |
| "Skipping Records That Generate Synchronization Errors" on page 132 | New topic. If a record fails to synchronize as a result of a record-level error, you can configure SSSE so that it either attempts to synchronize the record in subsequent synchronization cycles or it skips the record. |
| "Process of Configuring Email Notification of Synchronization Errors" on page 133<br><br>"Configuring System Alerts for Email Notification of PIMSI Engine Synchronization Errors" on page 133<br><br>"Configuring System Alerts for Email Notification of Exchange Connector Synchronization Errors" on page 137 | New topics. The administrator can configure SSSE to generate email notifications of synchronization errors generated by the PIMSI Engine and Exchange Connector. |

Table 1.    What's New in Siebel Server Sync Guide, Version 7.8, Rev B

| Topic | Description |
|---|---|
| "Example of Changing Integration Objects" on page 144<br><br>"Example of Changing Data Maps" on page 148<br><br>"Example of Changing Siebel Domain Configurations" on page 150<br><br>"Example of Changing PIM Domain Configurations" on page 155<br><br>"Example of Changing Domain Map Configurations" on page 157 | Revised topics. The examples of customizing SSSE have been revised. |
| "(Optional) Setting the Bucket Size User Property for Siebel Outlook Add-In" on page 191 | New topic. You can set a value for the Bucket Size user property of the Messaging Client Data Service business service. This value determines the number of Siebel data records that the Siebel Add-In Update Agent downloads to each user's local cache each time the local cache is initialized or refreshed. |
| "Initializing Siebel Outlook Add-In" on page 193 | Revised topic. If you enter an incorrect Siebel password in Microsoft Outlook, Siebel Outlook Add-In cannot create or update the local cache until you either log in to the Siebel application or change the password in Microsoft Outlook. |
| "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 197 | New topic. You can configure the Siebel Outlook Add-In to display additional Siebel objects in Microsoft Exchange. |

## Additional Changes

References to Siebel SupportWeb have been removed from the guide:

■ The Siebel Bookshelf is available on Oracle Technology Network (http://www.oracle.com/technetwork/indexes/documentation/index.html) and Oracle Software Delivery Cloud. It might also be installed locally on your intranet or on a network location..

■ Siebel System Requirements and Supported Platforms is located on Oracle Technology Network.

■ Other Siebel CRM documentation (Release Notes, Maintenance Release Guides, Technical Notes, Alerts, Troubleshooting Steps, FAQs, Error Messages) is located on My Oracle Support.

## What's New in Siebel Server Sync Guide, Version 7.8, Revision A

Table 2 lists changes in this version of the documentation. This revision provides increased accuracy and usability to support release 7.8 of Oracle's Siebel Server Sync for Microsoft Exchange (SSSE) software.

Table 2.    What's New in Siebel Server Sync Guide, Version 7.8, Revision A

| Topic | Description |
|---|---|
| "SSSE Deployment Options" on page 18 | Added a caution regarding workflows. |
| Supported PIMs | Supported platforms information has been moved to *System Requirements and Supported Platforms* on Oracle Technology Network. |
| "Initial Extract and Ongoing Extract" on page 23 | Added more information about case-sensitivity during initial extract and deletion behavior during ongoing synchronization. |
| "SSSE System Requirements" on page 36 | Added information about clustered environments, Active Directory forest requirement, troubleshooting a shortage of database connections, and time zone requirements. Information about required operating systems has been moved to *System Requirements and Supported Platforms* on Oracle Technology Network. |
| "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41 | Corrected topic. Not all tasks in this process must be performed on both PIMSI Engine computers and Exchange Connector computers. |
| "Installing Exchange 2000 System Management Tools" on page 42 | Corrected topic. This task is required for Exchange Connector computers, but not for PIMSI Engine computers that do not run Exchange Connector. |
| "Installing Microsoft Exchange Server Service Pack 3 Rollup" on page 43 | Added information about why this software is needed on PIMSI Engine and Exchange Connector computers. |
| "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44 | Corrected topic. Not all tasks in this process must be performed on both PIMSI Engine computers and Exchange Connector computers. |
| "Installing Exchange 2003 System Management Tools" on page 45 | Corrected topic. This task is required for Exchange Connector computers, but not for PIMSI Engine computers that do not run Exchange Connector. |
| "Configuring Firewalls for Use with SSSE" on page 49 | Added a new topic containing information about how to configure firewalls for use with SSSE. |
| Verifying SSSE Component Definitions | Added information in step 6 about how addresses are stored in Exchange and in the Siebel database. Added step 7 about setting Key Based Enabled and Application Repository File parameters. |

Table 2.     What's New in Siebel Server Sync Guide, Version 7.8, Revision A

| Topic | Description |
|---|---|
| "About Tuning SSSE for Optimal Performance" on page 56 | Added a new topic about specific SSSE parameters that can affect performance. |
| "Setting Up the Connector Share Directory" on page 58 | Modified topic to clarify share name requirements. |
| "About the Exchange Service Account" on page 59 | Added a new topic about the privileges that the Exchange Connector needs for proper operation. |
| "Configuring Exchange Service Account Credentials" on page 60 | Modified topic to add information about Send As privileges that must be granted explicitly for some versions of Exchange. |
| Configuring the Database for SSSE | Updated information about which script to use in supported database environments. Added information about reinstalling SSSE triggers after using the Generate Triggers server component. Added a caution about changing triggers. |
| "Configuring SSSE Indexes" on page 64 | Corrected topic. It is recommended, rather than required, that you contact your Oracle sales representative for Oracle Advanced Customer Services to request assistance from Oracle's Application Expert Services to activate your SSSE indexes. |
| "Populating DB_LAST_UPD Columns" on page 66 | Corrected topic. Optimizer does not populate the column with data, but it should be used after the column is populated. Removed the references to scripts that are no longer provided with the product. |
| "Configuring Exchange Connector Application DCOM Security" on page 68 | Added conceptual information about DCOM settings. Corrected step 9 of the procedure for configuring Exchange Connector DCOM security. The user identity that the Exchange Connector uses must have permission to read Exchange mailboxes, but does not need to match the identity of the user who starts the Siebel Server Windows services. |
| "Configuring the Generic Siebel Organizer" on page 75 | Added more information about the requirements for the Generic Siebel Organizer Login. |
| "Tuning SSSE Siebel Profile Parameters" on page 77 | Added information about the following parameters: AttendeeQueryForceEmailLower, ExtractStartDateFormat, ForceTranscode, MaxAlarmLeadMinutes, and ResolveContactbyEmailAddress. |
| "Configuring Exchange Connector Parameters" on page 84 | Modified topic to clarify the share name requirements. Added information about specifying the preferred Global Catalog servers for Exchange Connector to contact. |
| "About Synchronizing Additional Fields" on page 140 | Added information about why synchronization is not supported for certain fields. |

Table 2.    What's New in Siebel Server Sync Guide, Version 7.8, Revision A

| Topic | Description |
|---|---|
| "Setting User-Level Synchronization" on page 118 | Added information to clarify how the Visibility setting affects which records are available for synchronization by a specific user. |
| "About SSSE Table Maintenance" on page 129 | Added information about the effects of unmapping and remapping a user. |
| "About SSSE Log Files" on page 130 | Added information about error messages that can safely be ignored. |
| "About Moving or Deleting Mailboxes for SSSE Users" on page 131 | Added a new topic about how to move or delete the Exchange mailbox for an SSSE user. |
| "Factors That Determine Calendar Synchronization" on page 163 and "About Creating, Modifying, or Deleting an Appointment" on page 166 | Added information about how archiving affects the synchronization of Calendar records. |
| "Synchronization Error Messages" on page 183 | Added a new topic that lists error messages for minor synchronization problems. |
| "System Requirements for Siebel Outlook Add-In" on page 188 | Information about supported versions of Microsoft Outlook has been moved to *System Requirements and Supported Platforms* on Oracle Technology Network. |
| "(Optional) Setting Siebel Outlook Add-In Objects and Fields" on page 192 | Added a new topic that describes how to make optional adjustments to the information that Outlook Add-In provides. |
| "About Embedded Outlook Calendar" on page 215 | Modified topic wording to improve clarity. |
| "System Requirements for Embedded Outlook Calendar" on page 216 | Information about supported versions of Microsoft Outlook has been moved to *System Requirements and Supported Platforms* on Oracle Technology Network. |
| "Enabling Embedded Outlook Calendar Visibility" on page 218 | Modified topic to include additional requirements. |

## What's New in Siebel Server Sync Guide, Version 7.8

Table 3 lists changes in a prior revision of the documentation to support release 7.8 of the software.

Table 3.     What's New in Siebel Server Sync Guide, Version 7.8

| Topic | Description |
|---|---|
| All Topics | Siebel Server Sync for Microsoft Exchange Server (SSSE) is new functionality in release 7.8.2 that allows server-based synchronization of Siebel Calendar, Activity, and Contact data between Microsoft Exchange Servers and Siebel Servers. This allows SSSE users to view the synchronized data either in a Siebel application or in a Microsoft Exchange client application such as Microsoft Outlook. |

# 2 Introducing Siebel Server Sync

This chapter provides introductory information about Oracle's Siebel Server Sync. It includes the following topics:

- "About Siebel Server Sync" on page 17
- "SSSE Deployment Options" on page 18
- "SSSE Synchronization Options" on page 19

## About Siebel Server Sync

Siebel Server Sync is a server-side integration product that synchronizes Siebel application data with Microsoft Exchange Server. This version of the Siebel Server Sync product is referred to as Siebel Server Sync for Microsoft Exchange Server (SSSE). Synchronization with Microsoft Exchange Server allows Microsoft Exchange client software such as Microsoft Outlook to access the synchronized data.

SSSE can synchronize data that appears in the My Activities, My Calendar, My Contacts, My Personal Contacts, and All Employees views of the Siebel application. Synchronization of data between the Siebel application and Microsoft Exchange is done automatically and with a frequency an administrator can tune. No user action is required to initiate synchronization. However, each user must use the Add To Sync List command to designate the individual contact and employee records that SSSE will synchronize for that user.

If anyone adds or changes a record in the Siebel application, SSSE automatically exports or synchronizes the change with Microsoft Exchange. Likewise, if anyone adds or changes a record in Microsoft Exchange, SSSE automatically imports or synchronizes the change with the Siebel application. SSSE performs these operations on a single-user basis, using a synchronization schedule that administrators can adjust. Typically, SSSE synchronizes a data change within a few minutes after a user makes the original change.

SSSE supports three deployment options as described in "SSSE Deployment Options" on page 18.

# SSSE Deployment Options

Figure 1 shows the SSSE components in relation to Siebel Server and Microsoft Exchange Server.
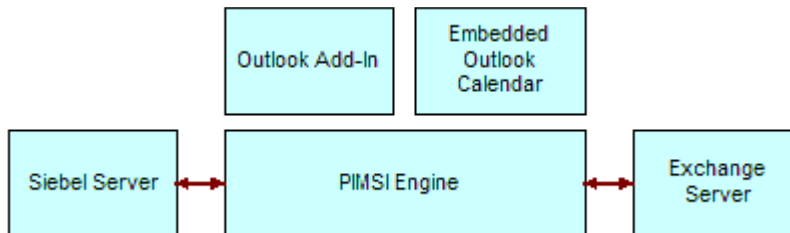


Figure 1.    SSSE deployment options with related servers

SSSE is composed of three separate, but related, components:

■ **PIM Server Integration (PIMSI) Engine and Dispatcher.** Allows server-based synchronization of data between the Siebel application and Microsoft Exchange. See Chapter 3, "Siebel Server Sync Architecture Overview."

■ **Siebel Outlook Add-In.** Allows users to access Siebel data from within Microsoft Outlook and associate Siebel data with Outlook contact, calendar and task records. See Chapter 9, "Setting Up and Using Siebel Outlook Add-In."

■ **Embedded Outlook Calendar.** Allows users to access their Microsoft Outlook calendar from within the Siebel application. See Chapter 10, "Setting Up and Using Embedded Outlook Calendar."

You can choose to deploy these options in the following combinations:

■ PIMSI Engine and PIMSI Dispatcher only

■ PIMSI Engine and PIMSI Dispatcher plus Siebel Outlook Add-In or Embedded Outlook Calendar

■ PIMSI Engine and PIMSI Dispatcher plus Siebel Outlook Add-In and Embedded Outlook Calendar

See the following chapters for information about PIMSI Engine and PIMSI Dispatcher:

■ Chapter 3, "Siebel Server Sync Architecture Overview"

■ Chapter 4, "Installing Siebel Server Sync"

■ Chapter 5, "Configuring Siebel Server Sync"

■ Chapter 6, "Administering Siebel Server Sync"

■ Chapter 8, "Using Siebel Server Sync"

After you install and set up PIMSI Engine and PIMSI Dispatcher, then you can install Siebel Outlook Add-In or Embedded Outlook Calendar or both, if you choose to do so. See these chapters:

■ Chapter 9, "Setting Up and Using Siebel Outlook Add-In"

■ Chapter 10, "Setting Up and Using Embedded Outlook Calendar"

**CAUTION:** Do not activate PIMSI workflows. The workflows that are provided in seed data are not currently used by SSSE, and can cause the PIMSI Engine to fail if deployed.

# SSSE Synchronization Options

SSSE supports the data synchronization options shown in Table 4.

Table 4.     Available Synchronization Levels for Siebel Domains

| Synchronization Level | Description |
|---|---|
| Full Sync | Bidirectional synchronization of data between the Siebel database and one or more Microsoft Exchange Servers occurs. |
| Export Only | Changes made in the Siebel application are exported to Microsoft Exchange Server. |
| Import Only<br><br>**NOTE:** Import Only synchronization is supported for Siebel calendar items only. | Changes made to calendar records in Microsoft Exchange Server are imported to the Siebel application.<br><br>For information about Import Only synchronization, see "Implementing Import-Only Synchronization of Calendar Records" on page 124 and "About the Limitation Against Import Only Synchronization Level" on page 112. |
| None | No synchronization of data takes place. |

Administrators set synchronization options. Administrators can set these options for each user on each domain.

A domain refers to the information domains: To Do items, Business Contacts, Personal Contacts, Employees, and Calendar.

A user can be an individual user or groups of users specified by Organization, Position, or User List. For more information, see "Process of Setting SSSE Group and User Access Controls" on page 117.

Table 5 shows the default synchronization settings for each Siebel domain.

Table 5.     Default Synchronization Settings for Siebel Domains

| Siebel Domain | Default Synchronization Level |
|---|---|
| Business Contact | Full Sync |
| Personal Contact | Full Sync |
| Employee | Export Only |
| Siebel Calendar | Full Sync |
| Siebel To Do | Full Sync |

If synchronization is enabled for calendar and to do (activity) items for a user, then SSSE automatically synchronizes new or changed calendar and to do records for that user. The administrator can optionally configure SSSE so that records that originate in Microsoft Exchange are not synchronized with the Siebel application if they are flagged as Private, or unless the user designates them for synchronization by specifying an appropriate value for the Category field.

If synchronization is enabled for contact records, an opt-in strategy is employed. This means that the user must use the Add To Sync List command to direct SSSE to synchronize a contact, personal contact, or employee record before the record can be synchronized between the Siebel Server and the Microsoft Exchange mailbox for that user. If a contact or personal contact record originates in Microsoft Exchange, the user must also specify an appropriate Category setting before SSSE will synchronize the record.

For additional information on designating records for synchronization, see "Using Siebel Server Sync" on page 161.

**Related Topics**

"Setting Siebel Domain-Level Synchronization" on page 111

"Designating Contact Records for Synchronization" on page 176

"Designating Employee Records for Synchronization" on page 181

# 3 Siebel Server Sync Architecture Overview

This chapter provides an overview of the architecture of SSSE, including information about the SSSE Server Components, PIMSI Engine and PIMSI Dispatcher. It includes the following topics:

## About PIMSI Engine

PIMSI Engine is a Siebel Server Component that enables synchronization of data between Siebel Enterprise Server and Microsoft Exchange Server. This component allows the synchronization of calendar appointments, tasks (called to do items in Siebel Business Applications), and contacts (business, personal, and employees) between the Siebel database and the Microsoft Exchange Server (or servers).

PIMSI Engine administration and configuration is conducted using centralized administration and configuration screens in the Siebel application. No end-user installation is required for synchronization of calendar appointment, task, or contact records. End users designate the contact records to be synchronized, but other end user action is not required. Synchronization can be selectively enabled for individual users or groups of users. After synchronization is initiated between Microsoft Exchange and the Siebel application for a specific user, synchronization is performed automatically for that user. The time that elapses between when a data change takes place and when the change is synchronized depends on a system-wide configuration parameter that the administrator can adjust.

**NOTE:** Because PIMSI Engine is server based, users must use Offline Store (OST) files to replicate data between Microsoft Exchange Servers and their local Microsoft Outlook client, or they must store their Microsoft Outlook data exclusively on the Microsoft Exchange Server. PIMSI Engine cannot synchronize data stored in Personal Folders (PST) files.

If a PIMSI Engine goes offline in a Siebel implementation that has multiple PIMSI Engines, the remaining PIMSI Engines pick up the workload of the PIMSI Engine that is not functioning. When that PIMSI Engine comes back online, workloads for all PIMSI Engines rebalance automatically.

# About PIMSI Dispatcher

PIMSI Dispatcher is a Siebel Server component that performs the following actions at regular, configurable intervals:

■ Determines which users require synchronization within a synchronization cycle due to changes in Siebel data. For example, if 1000 users have synchronization enabled, Dispatcher identifies which of those users have had Siebel data change since the user's last successful synchronization.

■ Sends a synchronization Task Request to PIMSI Engine for each user who has synchronization enabled. The Task Request contains a SiebelChangeFlag property that indicates whether Siebel data changes are to be synchronized or not. For all such Task Requests, PIMSI Engine synchronizes any changes in that user's Microsoft Exchange data that have been made since the user's last successful synchronization. If SiebelChangeFlag is set to *Y*, then PIMSI Engine also synchronizes changes in the user's Siebel data.

**NOTE:** If the SSSE Dispatcher goes offline, synchronization stops until the SSSE Dispatcher is restarted. You can set PIMSI Dispatcher to restart automatically upon failure.

# About Exchange Connector

Exchange Connector is an SSSE component that is responsible for all communications with Microsoft Exchange Server.

**NOTE:** Exchange Connector is not a Siebel Server component.

You can deploy Exchange Connector in either of the following ways:

■ Deploy one Exchange Connector at a central location within the Siebel Enterprise

■ Deploy multiple Exchange Connectors at geographic locations near Microsoft Exchange Servers

# Important SSSE Terminology

This topic provides definitions of some important terms related to SSSE operations:

■ **Siebel domain.** A set of Siebel objects that SSSE considers for synchronization with the PIM. The Siebel domains currently include the Business Contacts, Calendar, Employees, Personal Contacts, and To Do domains.

■ **PIM domain.** A set of PIM objects that SSSE considers for synchronization with the Siebel application. The PIM domains currently include Microsoft Exchange Contacts, Calendar, and Tasks domains.

■ **Domain mapping.** A mapping between Siebel domain objects and PIM domain objects. This determines which Siebel domain object is synchronized with which PIM domain object.

■ **Outbound synchronization.** The process of sending data from the Siebel Server to the PIM Server.

■ **Inbound synchronization.** The process of sending data from the PIM Server to the Siebel Server.

# Initial Extract and Ongoing Extract

This topic describes the Initial Extract process and the Ongoing Extract process which synchronize Siebel data and Microsoft Exchange Server data.

For each enabled user, SSSE periodically extracts changes from both the Siebel database and the Microsoft Exchange data store, and then applies the changes from each data store to the other. The SSSE administrator can configure the time period between extractions to suit your business requirements. For each user, the first iteration of this periodic extraction process is called the Initial Extract, and the following extractions are called Ongoing Extracts.

During an Initial Extract, SSSE takes data from the user's Microsoft Exchange folders and the Siebel database. SSSE analyzes the data to find any Microsoft Exchange records that match Siebel records, and then synchronizes all of the applicable data.

For example, suppose that there are 10 contacts in a user's Microsoft Exchange folder and 20 completely different business contacts in the same user's My Contacts list in the Siebel application. (In other words, none of the user's contacts in Microsoft Exchange are logically the same as any of that user's business contacts in the Siebel database.) If the user has synchronization enabled and has used the Add To Sync List command to request synchronization of all 20 Siebel business contacts, then, after Initial Extract is performed for that user, both the user's Microsoft Exchange Contact folder and the user's My Contacts list will contain 30 contact listings. As part of this process, for any contact records that SSSE imports from Microsoft Exchange to the Siebel database, SSSE automatically adds the user to the record's Sync List for future synchronizations. The Sync List for the record is a multi-value group (MVG) field that lists the employees who synchronize that record.

The Initial Extract process prepares the user's data for Ongoing Extract synchronizations. More detailed information about the Initial Extract process is provided later in this topic.

The Ongoing Extract process repeatedly inspects a user's data for changes. Ordinarily, it synchronizes just the data that has changed since SSSE performed the most recent successful synchronization. However, in some circumstances, such as changes in the synchronization level of a domain, all of the user's data within that domain is reextracted.

# About Synchronizing Records During Initial Extract

During the Initial Extract process for a particular user, for each domain that the user can synchronize, the Initial Extract process compares that user's Microsoft Exchange records in that domain with that user's Siebel records in the corresponding Siebel domain.

The actions that follow this comparison depend on the following factors:

■ **Synchronization level for the current domain and user.** The synchronization level determines whether SSSE will synchronize a domain. For a domain that SSSE can synchronize, the synchronization level determines whether information can flow in both directions between the Microsoft Exchange Server and the Siebel database, or whether information must always flow in one direction.

■ **Extract Start Date.** The administrator can specify extract start dates for individual users, and a system-wide extract start date that applies to all users for whom individual extract start dates are not specified. For initial extracts, the Extract Start Date determines the date of the oldest appointments and tasks that SSSE is to synchronize.

■ **Existence or absence of a matching record.** SSSE compares Microsoft Exchange records and Siebel records to determine if corresponding records have to be modified or if new records have to be created.

   When SSSE compares calendar, employee, and to do records in Microsoft Exchange and the Siebel application, SSSE only checks the values in certain key fields to determine whether or not the records match. For additional information about key fields, see "Setting Key Fields" on page 117.

   For information about how SSSE matches contact records, see "About SSSE Contact Record Matching" on page 25.

■ **PIM Category Value.** Depending on how your SSSE implementation is configured, whether or not SSSE synchronizes Microsoft Exchange contact records depends on whether or not the Category field in the Microsoft Exchange record has a value that matches the PIM Category value setting in your Siebel implementation, as described in "Initial Extract of Microsoft Exchange Contact Records" on page 27.

   If you have enabled the Opt-in feature for calendar and task records, the value of the Category field in the Microsoft Exchange record must also match the PIM Category value setting if the record is to be synchronized. For additional information, see "Implementing Opt-In Synchronization for Calendar and Task Records" on page 126.

■ **Private check box status.** If you have set the Ignore option for the Private Item Behavior parameter for calendar and task records, SSSE does not synchronize records that have the Private check box selected. For additional information, see "Skipping Private Calendar or Task Records During Synchronization" on page 128.

■ **Sync List Status.** Whether or not SSSE synchronizes Siebel contact records depends on whether the Sync List flag is set for the record and user in question.

■ **Status of case sensitivity settings for your Siebel implementation.** Siebel implementations can be set for case-sensitivity or case insensitivity at the application level, at the AOM (application object manager) level, or at the field level. The status of these settings affects whether or not SSSE detects differences between two field values that differ only in capitalization. By default, Siebel Business Applications are set to be case-sensitive. For example, the default settings cause SSSE to detect no match between a value of ABC Corp on the PIM and a value of ABC CORP in the Siebel database. In such a case, SSSE synchronizes the records separately, resulting in both forms of the record being present on the PIM and in the Siebel database. However, if your Siebel application is case-insensitive in the context where SSSE checks for matching records, then SSSE would treat these two values as a match. For information about setting applications, AOMs, and fields to be case-insensitive, see *Applications Administration Guide*.

For additional information on initial and ongoing extractions, see:

# About SSSE Contact Record Matching

During the extract process that synchronizes Siebel data and Microsoft Exchange data, SSSE carries out a number of checks to determine whether a contact record designated for synchronization matches an existing contact record or not. This topic describes how SSSE performs contact record matching, and describes the following parameters, which affect the SSSE contact record matching process:

■ Visibility Type setting

■ IgnoreContactMatching parameter

## About the Visibility Type Setting

The Visibility Type setting determines which records a user can synchronize, and therefore which records SSSE searches when attempting to determine if a contact record is a duplicate or not. When the Visibility Type setting is set to All, the user can synchronize any of the data that is visible to them and that is enabled for synchronization. If the Visibility Type setting is set to Sales Rep, the user can synchronize data that is associated with the user's position; this data is visible to the user in the My Contacts view.

When resolving contact records, if a user's visibility is set to Sales Rep, SSSE only checks the Siebel records associated with the user's position for duplicate contact records.

For information on the Visibility Type setting, see .

## About the IgnoreContactMatching Parameter

The SSSE configurable parameter, IgnoreContactMatching, determines whether or not SSSE attempts to match contact records during the ongoing synchronization extract process.

If the IgnoreContactMatching parameter is set to FALSE (the default value), SSSE compares Microsoft Exchange and Siebel records to determine whether or not a contact record that is being synchronized matches an existing contact record. If a matching record is not found, SSSE creates a new contact record. If a matching record is found, SSSE creates an association between the records and overrides the existing contact record field values with the field values of the record that is being synchronized, unless the field values of the record being synchronized are Null or blank. Setting the IgnoreContactMatching parameter to FALSE helps to ensure that duplicate contact records are not created during the synchronization process.

If the IgnoreContactMatching parameter is set to TRUE, SSSE does not attempt to match a contact record that is being synchronized with existing contact records. Disabling contact record matching optimizes the performance of the synchronization process but can result in duplicate contact records being created, which must be resolved manually.

For information on specifying values for the IgnoreContactMatching parameter, see "Enabling and Disabling Contact Record Matching" on page 113.

## About the Contact Record Matching Process

In determining whether or not a contact record designated for synchronization matches an existing contact record, SSSE first tries to match the contact record using the email address; if the record does not have an email address, SSSE then attempts to match the contact record using first and last names.

SSSE performs the following steps in determining how to treat a contact record that is designated for synchronization:

1  When a contact is designated for synchronization in either Microsoft Outlook or the Siebel application (Application X), SSSE first attempts to match the record using the email address.

   If the contact record that is designated for synchronization does not have an email address, then SSSE performs Step 2 on page 27.

   If the contact does have an email address, SSSE queries the other application (Application Y) for a contact with the same email address, then performs one of the following steps:

   ■  If an individual contact record is found with the same email address, and if the record is not already mapped to a record in Application X, SSSE creates an association between the newly designated record in Application X and the matching record in Application Y and merges field values.

   ■  If a number of contact records are found with the same email address, SSSE queries the other application (Application Y) for a contact with the same first name, last name, and email address combination.

      ❏  If an individual record is found with the same combination of first name, last name, and email address, and if the record is not already mapped to a record in Application X, SSSE creates an association between the newly designated record in Application X and the matching record in Application Y, and merges field values.

      ❏  If no records are found with the same combination of first name, last name, and email address, SSSE creates a new contact record.

❑ If a number of records are found with the same combination of first name, last name, and email address, SSSE creates an association between the newly designated record in Application X and the first matching record located in Application Y, and merges field values.

■ If no records are found with the same email address, SSSE queries the other application (Application Y) for a contact with the same first name and last name.

❑ If an individual record is found with the same first and last name combination, and if the record is not already mapped to a record in Application X, SSSE creates an association in the Siebel application between the newly designated record in Application X and the matching record in Application Y, and merges field values.

❑ If no records are found with the same first and last name combination, SSSE creates a new contact record.

❑ If a number of records are found with the same first and last name combination, SSSE creates an association between the newly designated record in Application X and the first matching record located in Application Y, and merges field values.

2 If the contact record that is designated for synchronization does not have an email address, then SSSE queries the other application (Application Y) for a contact with the same first and last name combination.

■ If an individual contact record is found with the same first and last name combination, and if the record is not already mapped to a record in Application X, SSSE creates an association in the Siebel application between the newly designated record in Application X and the matching record in Application Y, and merges field values.

■ If an individual contact record is not found with the same first and last name combination, SSSE creates a new contact record.

■ If a number of records are found with the same first and last name combination, SSSE creates an association between the newly designated record in Application X and the first matching record located in Application Y, and merges field values.

**NOTE:** Contact record matching is case insensitive when Siebel contact records are synchronized with Microsoft Exchange and case sensitive when Microsoft Exchange records are synchronized with the Siebel application.

**Related Topics**

# Initial Extract of Microsoft Exchange Contact Records

SSSE has a configurable parameter called OnlySyncCategorizedContacts that can be set to TRUE or FALSE to suit your business requirements. This Boolean parameter setting determines whether or not Initial Extract operations synchronize Microsoft Exchange contact records that have the Category field set to a specified value. For information on specifying a value for the OnlySyncCategorizedContacts parameter, see "Tuning SSSE Siebel Profile Parameters" on page 77.

If the OnlySyncCategorizedContacts parameter is set to FALSE, all the user's Microsoft Exchange contact records are considered for synchronization. By default, this parameter is set to FALSE. Table 6 on page 29 shows how SSSE handles Microsoft Exchange contact records during an Initial Extract when the OnlySyncCategorizedContacts parameter is set to FALSE.

If the OnlySyncCategorizedContacts parameter is set to TRUE, then, in order to be synchronized during an Initial Extract operation, Microsoft Exchange contact records must have the Category field set to a value that matches the Siebel setting called PIM Category Value. (The default value for the PIM Category Value setting is Siebel Contact). For more information about how SSSE handles Microsoft Exchange contact records during an Initial Extract when the OnlySyncCategorizedContacts parameter is set to TRUE, see Table 7 on page 32.

Table 6.    Initial Extract Behavior for a Microsoft Exchange Contact Record when OnlySyncCategorizedContacts Parameter is Set to FALSE

| Synchronization Level | Category Field Set to Specified PIM Category Value | Record Meets Matching Criteria and User Is Authorized to Synchronize the Data | User included in Sync List for corresponding Siebel Record | Microsoft Exchange Result | Siebel Result |
|---|---|---|---|---|---|
| Full Sync | Yes | Yes | Yes | SSSE creates a new record and relates this record to the existing Siebel record. | SSSE creates a new record and relates this record to the existing Microsoft Exchange record. |
| Export Only | Yes | Yes | Yes | SSSE creates a new record and relates this record to the existing Siebel record. The existing Microsoft Exchange record is ignored. | Not applicable |
| Full Sync | Yes | Yes | No | No change to the Microsoft Exchange record | SSSE associates the Microsoft Exchange record to the existing Siebel record, adding the current user to that record's Sync List |

Table 6.     Initial Extract Behavior for a Microsoft Exchange Contact Record when
            OnlySyncCategorizedContacts Parameter is Set to FALSE

| Synchronization Level | Category Field Set to Specified PIM Category Value | Record Meets Matching Criteria and User Is Authorized to Synchronize the Data | User included in Sync List for corresponding Siebel Record | Microsoft Exchange Result | Siebel Result |
|---|---|---|---|---|---|
| Full Sync | Yes | No | Not applicable | No change to Microsoft Exchange record | SSSE creates a new Siebel record, adds the user to the record's Sync List, and associates the Siebel record with the Microsoft Exchange record |
| Full Sync | No | Yes | Yes | SSSE matches the existing record and overwrites it with Siebel record values if conflicts exist. | Values available in the existing Microsoft Exchange record are synchronized with the Siebel record for fields that were previously null in the Siebel record |
| Export Only | No | Yes | Yes | SSSE matches the existing record and overwrites it with Siebel record values if conflicts exist. | No change |

Table 6.     Initial Extract Behavior for a Microsoft Exchange Contact Record when
             OnlySyncCategorizedContacts Parameter is Set to FALSE

| Synchronization Level | Category Field Set to Specified PIM Category Value | Record Meets Matching Criteria and User Is Authorized to Synchronize the Data | User included in Sync List for corresponding Siebel Record | Microsoft Exchange Result | Siebel Result |
|---|---|---|---|---|---|
| Full Sync | No | Yes | No | No change to Microsoft Exchange record | SSSE associates the Microsoft Exchange record to the existing Siebel record, adding the current user to the record's Sync List |
| Full Sync | No | No | Not applicable | No change to Microsoft Exchange record | SSSE creates a new Siebel record, adds the user to the record's Sync List, and associates the Siebel record with the Microsoft Exchange record |

Table 7 on page 32 shows how SSSE handles Microsoft Exchange contact records during an Initial
Extract when the OnlySyncCategorizedContacts parameter is set to TRUE.

Table 7.     Initial Extraction Behavior for a Microsoft Exchange Contact Record when
             OnlySyncCategorizedContacts Parameter is Set to TRUE

| Synchronization Level | Category Field Set to Specified PIM Category Value | Record Meets Matching Criteria and User Is Authorized to Synchronize the Data | User included in Sync List for corresponding Siebel Record | Microsoft Exchange Result | Siebel Result |
|---|---|---|---|---|---|
| Full Sync | Yes | Yes | Yes | SSSE creates a new record and relates this record to the existing Siebel record. | SSSE creates a new record and relates this record to the existing Microsoft Exchange record. |
| Export Only | Yes | Yes | Yes | SSSE creates a new record and relates this record to the existing Siebel record. The existing Microsoft Exchange record is ignored. | Not applicable |
| Full Sync | Yes | Yes | No | No change to the Microsoft Exchange record | SSSE associates the Microsoft Exchange record to the existing Siebel record, adding the current user to that record's Sync List |

Table 7.    Initial Extraction Behavior for a Microsoft Exchange Contact Record when
OnlySyncCategorizedContacts Parameter is Set to TRUE

| Synchronization Level | Category Field Set to Specified PIM Category Value | Record Meets Matching Criteria and User Is Authorized to Synchronize the Data | User included in Sync List for corresponding Siebel Record | Microsoft Exchange Result | Siebel Result |
|---|---|---|---|---|---|
| Full Sync | Yes | No | Not applicable | No change to Microsoft Exchange record | SSSE creates a new Siebel record, places the user in the record's Sync List, and associates the Siebel record with the Microsoft Exchange record |
| Full Sync or Export Only | No | Not applicable | Not applicable | No change to Microsoft Exchange record | No change to Siebel record |

**Related Topics**

"About Synchronizing Records During Initial Extract" on page 23

"About Synchronizing Records During Ongoing Extract" on page 34

## Initial Extract of Microsoft Exchange Task and Calendar Records

Table 8 shows how SSSE handles Microsoft Exchange task and calendar records during the Initial Extract process.

Table 8.     Initial Extraction Behavior for a Microsoft Exchange Task Record or Calendar Record

| Synchronization Level | Similar Record Exists in Siebel Database and is Visible to the User | Microsoft Exchange Result | Siebel Result |
|---|---|---|---|
| Full Sync or Export Only | Yes | SSSE overwrites the Microsoft Exchange record with Siebel data | SSSE associates the Siebel record with the Microsoft Exchange record |
| Full Sync | No | No change to Microsoft Exchange record | SSSE creates a new Siebel record and associates it with the Microsoft Exchange record |

For additional information on the initial Extract process, see "About Synchronizing Records During Initial Extract" on page 23.

# About Synchronizing Records During Ongoing Extract

This topic describes record synchronization during the ongoing Extract process. For information on the initial Extract process, see "About Synchronizing Records During Initial Extract" on page 23.

The Ongoing Extract process is similar to the Initial Extract process but differs in the following respects:

■ The only record changes that Ongoing Extract evaluates are the changes that have taken place since the last time the user was successfully synchronized.

■ If a Siebel record and a Microsoft Exchange record were associated with each other in a previous synchronization, key fields are not used to determine what action to take. Instead, record IDs are used when determining whether a Siebel record or Microsoft Exchange record has changed. This allows users to change values in key fields while preserving the association between a Siebel record and a Microsoft Exchange record.

■ If a record changes in both the Siebel environment and the Microsoft Exchange environment between synchronizations, SSSE treats the situation as an update conflict. The changes in the Siebel environment are preserved and the Microsoft Exchange environment inherits these changes through synchronization.

■ In general, if a record is modified in one environment but is deleted in the other, then the record is deleted in the remaining environment at the next synchronization. However, the behavior differs slightly depending on which domain is involved, where the deletion occurs, and when the deletion occurs, as follows:

  ■ If a Siebel contact, task, or calendar record is synchronized with Microsoft Exchange and the user deletes it in Microsoft Exchange before that user's next synchronization occurs, then the next synchronization does not delete or otherwise affect the Siebel record.

  ■ If, instead, the user's data is synchronized successfully at least once between the initial synchronization to Microsoft Exchange and the deletion of the record in Microsoft Exchange, then the results are as described as follows:

    ❑ If a user deletes a contact record in Microsoft Outlook that has the Private check box selected, then SSSE deletes the corresponding Siebel personal contact record.

    ❑ If a user deletes a task in Microsoft Outlook, then SSSE deletes the corresponding Siebel task record.

    ❑ If a user deletes a contact record in Microsoft Outlook that does not have the Private check box selected, then SSSE removes the user from the Sync List for the corresponding Siebel business contact record.

    ❑ If a user deletes a contact record in Microsoft Outlook that has the Category field set to Employee (or PIM Category Value for the Employee domain), or if the Category field is cleared, SSSE makes no changes to the corresponding Siebel record because the Employee domain is configured for one-way synchronization, from the Siebel record to the Microsoft Exchange record.

■ The Category field for a Microsoft Exchange contact record must contain an appropriate value in order for the record to be synchronized with the Siebel database. Depending on the values in the Category field and whether or not the Private check box is selected, the Siebel record that corresponds to a synchronized Microsoft Exchange contact record can be any of the following Siebel record types:

  ■ Siebel business contact record

  ■ Siebel personal contact record

  ■ Siebel employee record

For more information about how Microsoft Exchange Category field values and Private check box status affect corresponding Siebel record types, see Table 9.

Table 9.    Relationships Between Microsoft Exchange Contacts and Siebel Contacts and Employees

| Siebel Record Type | Corresponding Microsoft Exchange Contact Category Field Value | Corresponding Microsoft Exchange Contact Private Check Box Status |
| --- | --- | --- |
| Siebel Business Contact | Match PIM Category Value setting for Siebel Business Contact domain (default value is Siebel Contact) | Not selected |
| Siebel Personal Contact | Match PIM Category Value setting for Siebel Personal Contact domain (default value is Siebel Contact) | Selected |
| Siebel Employee | Match PIM Category Value setting for Siebel Employee domain (default value is Employee) | Not applicable |

# SSSE System Requirements

SSSE is a part of the Siebel Enterprise. SSSE is composed of the following components:

■ **Siebel Enterprise Server.** Hosts one or more Siebel Servers that run the PIMSI Engine server component and the PIMSI Dispatcher server component, with the following characteristics:

■ You can run multiple instances of the PIMSI Engine component, either on a single Siebel Server or on multiple Siebel Servers.

■ You can use SSSE in either clustered environments or nonclustered environments. Performance for SSSE in a clustered environment is roughly comparable to performance in a nonclustered environment that has multiple servers running the PIMSI Engine and the Siebel Exchange Connector components.

■ A computer that hosts the PIMSI Engine component or the PIMSI Dispatcher component must use a supported operating system. For information about operating systems currently supported, see *System Requirements and Supported Platforms* on Oracle Technology Network.

■ The user account under which the Exchange Connector runs must have read-write privileges to the Microsoft Exchange mailboxes of all users who synchronize using SSSE. The Exchange Connector user must be in the same Active Directory forest as the users to be synchronized, or in a forest that has a trust relationship with the Active Directory forest of the users to be synchronized.

The user name under which the PIMSI Engine and the Exchange Connector run must be in the same Active Directory forest, or in different forests that have a trust relationship, to communicate using Distributed Component Object Model (DCOM).

■ If your Siebel implementation experiences a shortage of connections to the database, increasing the number of PIMSI Engine components can sometimes resolve the problem. However, SSSE is only one kind of Siebel software that uses database connections. For more information about general management of database connections, see *Performance Tuning Guide*.

■ If your Siebel implementation uses Coordinated Universal Time (UTC) throughout, then SSSE automatically converts dates and times appropriately. If your Siebel implementation does not use UTC, then your Siebel Servers, Exchange Connector Host, Microsoft Exchange Servers, and Database Server must all be set to use the same time zone. For more information about using UTC, see *Global Deployment Guide*.

■ **Exchange Connector Host.** Houses the Siebel Exchange Connector software. The computer that serves as the Exchange Connector Host must run on Microsoft Windows. The Exchange Connector computer can be a computer that is serving as part of the Siebel Enterprise Server or another computer that resides inside your organization's firewall.

PIMSI Engine works in conjunction with the Microsoft Exchange Server host, the computer that hosts the Microsoft Exchange Server software for Microsoft Outlook. There are no specific Siebel software requirements for the Microsoft Exchange Server computers. See your Microsoft documentation for system requirements.

**NOTE:** If a Microsoft Exchange Server goes offline, remaining Microsoft Exchange Servers continue to synchronize SSSE users. When a Microsoft Exchange Server resumes operation, synchronization to that server resumes automatically.

# SSSE Architecture

Figure 2 illustrates the SSSE architecture. Each SSSE user's computer interacts with the Siebel database and the Microsoft Exchange Server Host. The communications that occur between the Siebel database and the PIMSI Engine and PIMSI Dispatcher servers are separate from the communications that occur between the Siebel database and individual SSSE user computers. The Exchange Connector Host acts as an intermediary for communications between PIMSI Engine and the Microsoft Exchange Server Host.
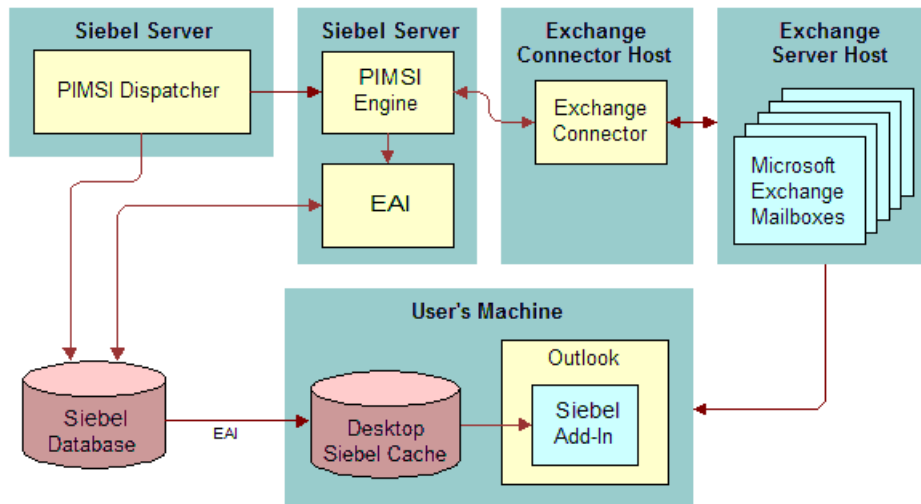


Figure 2.    SSSE Architecture

If your implementation includes firewalls between SSSE components, you may have to open specific ports in the firewall to allow the various parts of the implementation to communicate with each other. For more information about using SSSE with firewalls, see "Configuring Firewalls for Use with SSSE" on page 49.

# Required Components for SSSE

The SSSE server components, PIMSI Dispatcher and PIMSI Engine, handle several important functions in the synchronization process.

At regular, configurable intervals, PIMSI Dispatcher performs the following actions:

■   Determines which users require synchronization within a synchronization cycle due to changes in Siebel data. For example, if 1000 users have synchronization enabled, Dispatcher identifies which of those users have had Siebel data change since the user's last successful synchronization.

■ Sends a synchronization Task Request to the PIMSI Engine for each user who has synchronization enabled, to synchronize any changes in that user's Microsoft Exchange data since the user's last successful synchronization. If the SiebelChangeFlag property of the Task request indicates that Siebel data changes are to be synchronized, then changes in the user's Siebel data are also synchronized.

For each user who has data to be synchronized, PIMSI Engine performs the following actions:

■ Computes the incremental data change since the user's last successful synchronization

■ Communicates with Exchange Connector to request data from Microsoft Exchange Server

■ Reads data from the Siebel database

■ Performs data conflict detection and resolution

■ Sends data to the Exchange Connector to be written to the user's mailbox on the Microsoft Exchange Server

■ Uses Enterprise Application Integration (EAI) methods to write data to the Siebel database

You can run PIMSI Engine components on multiple Siebel Servers in your Enterprise. If you set the MaxTasks and MaxMTServers parameters for the PIMSI Engine component appropriately, you can also have multiple PIMSI Engine processes running simultaneously on a Siebel Server host.

PIMSI Engine uses the following components to communicate and synchronize data to and from the Microsoft Exchange Server:

■ **EAI components.** The PIMSI Engine component uses Siebel EAI methods to communicate with the Siebel database. EAI includes Siebel Adapter, Data Mapper, and XML Converter.

■ **Exchange Connector.** This is the liaison between PIMSI Engine and the Microsoft Exchange Server. The Exchange Connector can reside on the same computer as the Siebel Server that hosts PIMSI Engine components, or it can reside on a separate computer. The Exchange Connector uses several APIs to communicate with Microsoft Exchange Server. The exact set of APIs that Exchange Connector uses might change over time. The Exchange Connector currently uses MAPI, ADO, WebDAV and ADSI APIs.

# PIMSI Engine Data Flow

The following steps describe the data flow that takes place during either initial extractions or ongoing extractions:

**1** An administrator enables a user for synchronization.

**2** At preconfigured intervals, PIMSI Dispatcher determines which users have synchronization enabled. For each such user, the Dispatcher sends a Task Request to PIMSI Engine, requesting synchronization of Microsoft Exchange data for that user. If the user's Siebel data has changed since the user's last successful synchronization, or if the user has not yet synchronized successfully, then the Task Request also asks for synchronization of the applicable Siebel data.

**3** PIMSI Engine determines which data must be synchronized for the user, for both Siebel data and Microsoft Exchange data. This involves requesting data from both the Siebel database and the Microsoft Exchange Server.

**4** PIMSI Engine sends data from the Siebel database to the Exchange Connector, which identifies the user's mailbox on the Microsoft Exchange Server and writes to it.

**5** PIMSI Engine uses EAI methods to write data from the Microsoft Exchange Server to the Siebel database.

**NOTE:** The PIMSI Engine data flow relies upon database triggers recording information in the S_SD_SYNC_INFO table about changes to Siebel data.

# 4 Installing Siebel Server Sync

This chapter describes how to install SSSE in each of the supported Microsoft Exchange Server environments. It includes the following topics:

- "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41
- "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44
- "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46
- "Configuring Firewalls for Use with SSSE" on page 49
- "Installing Siebel Server for PIMSI Dispatcher" on page 50
- "Installing Siebel Server for PIMSI Engine" on page 51
- "Installing Siebel Exchange Connector" on page 52

For information about hardware and software requirements, see "SSSE System Requirements" on page 36. For information about installing the Siebel Outlook Add-In deployment option, see "Process of Setting Up Siebel Outlook Add-In" on page 188. For information about installing the Embedded Outlook Calendar deployment option, see "Process of Setting Up Embedded Outlook Calendar" on page 216.

## Process of Installing SSSE in a Microsoft Exchange 2000 Environment

This topic describes the process of installing SSSE in a Microsoft Exchange 2000 Server environment.

To install SSSE in a Microsoft Exchange 2000 Server environment, perform the following tasks:

1 "Installing Exchange 2000 System Management Tools" on page 42
2 "Installing Microsoft Exchange 2000 Server Service Pack 3" on page 42
3 "Installing Microsoft Exchange Server Service Pack 3 Rollup" on page 43
4 "Installing MSXML 4.0 SP2" on page 43
5 "Checking Domain Controller Properties" on page 44
6 "Configuring Firewalls for Use with SSSE" on page 49
7 "Installing Siebel Server for PIMSI Dispatcher" on page 50
8 "Installing Siebel Server for PIMSI Engine" on page 51
9 "Installing Siebel Exchange Connector" on page 52

To prepare the Microsoft Exchange 2000 Server environment, perform Step 1 through Step 5 on page 41. Except where otherwise indicated, perform these tasks on each PIMSI Engine computer and each Exchange Connector computer. Then perform Step 6 on page 41 through Step 9 on page 41.

# Installing Exchange 2000 System Management Tools

The following procedure briefly describes how to install Exchange 2000 System Management Tools on Exchange Connector computers.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41.

**NOTE:** This task must be performed for all Exchange Connector computers, but is not required for PIMSI Engine computers that do not run Exchange Connector.

### To install the Exchange 2000 System Management Tools

1   Insert the Microsoft Exchange 2000 installation CD into your target server.

2   From the Microsoft Exchange 2000 Setup choose the Custom setup.

3   From the Custom setup screen install only the Exchange System Management Tools.

# Installing Microsoft Exchange 2000 Server Service Pack 3

The following procedure briefly describes how to install Microsoft Exchange 2000 Server Service Pack 3 on PIMSI Engine computers and Exchange Connector computers.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41.

### To install Microsoft Exchange 2000 Server Service Pack 3

1   On the computer where you want to install the software, open a browser window, navigate to the Microsoft downloads Web site at the following URL, and locate the Microsoft Exchange 2000 Server Service Pack 3 software:

http://www.microsoft.com/downloads

You can either download this software to each computer where you want to install it, or you can download it to one network-accessible location, and install the software from that location for each applicable computer.

2   Create a folder named SP3 on the computer's local hard disk, or in another network-accessible location.

3   Download the EX2KSP3_server.exe file into the new SP3 folder by clicking on the EX2KSP3_server.exe link on the Web page.

4   Install the service pack according to the instructions provided by Microsoft.

# Installing Microsoft Exchange Server Service Pack 3 Rollup

The following procedure briefly describes how to install Microsoft Exchange 2000 Server Service Pack 3 Rollup on PIMSI Engine computers and Exchange Connector computers. This patch contains critical fixes that are applied to the Exchange System Management Tools, which the PIMSI Engine and Connector require in order to communicate with Microsoft Exchange Server.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41.

**NOTE:** Microsoft Exchange Server Service Pack 3 must be installed before you install Microsoft Exchange Server Service Pack 3 Rollup. Be sure to complete both tasks.

### To install Microsoft Exchange Server Service Pack 3 Rollup

1  Open a browser window on your target server, navigate to the Microsoft downloads Web site at the following URL, and locate the Microsoft Exchange 2000 Server Service Pack 3 Rollup:

   http://www.microsoft.com/downloads

2  Create a new folder on your local hard disk.

3  Download the EXE file into the folder you created by clicking on the Download button on the Web page.

4  Open the folder on your local hard disk, and then double-click the EXE file, and follow the installation instructions.

5  In the Unzip to Folder dialog box, enter the location of the folder you created, and then click Unzip.

6  When the self-extraction process is complete, click OK, and then click Close.

7  Run the installation package from the directory folder you created.

# Installing MSXML 4.0 SP2

The following procedure briefly describes how to install MSXML 4.0 SP2 on PIMSI Engine computers and Exchange Connector computers.

**NOTE:** SSSE requires that you install version 4.0 SP2 of MSXML, although later versions of MSXML are available. You can, however, run more than one version of MSXML on the same computer, if required.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41.

### To install MSXML 4.0 SP2

1  Open a browser window on your target server, navigate to the Microsoft downloads Web site at the following URL, and locate the MSXML 4.0 SP2 software:

   http://www.microsoft.com/downloads

**2** Click the Download link on the Web page.

**3** Download the installation package and install the software.

## Checking Domain Controller Properties

For optimum SSSE performance, install PIMSI Engine and Exchange Connector on computers in a domain whose initially installed Domain Controller (DC) includes a copy of the Active Directory Global Catalog (GC).

The following procedure briefly describes how to determine whether a Domain Controller contains a copy of the catalog. This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41.

### To check Domain Controller properties

**1** On a Domain Controller computer, navigate to Start, Programs, Administrative Tools, and then Active Directory Sites and Services.

**2** Locate the correct site and select the Domain Controller server in the Servers folder.

**3** Expand the server object.

**4** Select NTDS Settings, and then right-click and select Properties.

**5** Click the General tab, and inspect the Global Catalog check box.

If the Global Catalog check box is selected, then the Domain Controller contains a copy of the Active Directory Global Catalog.

# Process of Installing SSSE in a Microsoft Exchange 2003 Environment

This topic describes the process of installing SSSE in a Microsoft Exchange Server 2003 environment.

To install SSSE in a Microsoft Exchange Server 2003 environment, perform the following tasks:

**1** "Installing Exchange 2003 System Management Tools" on page 45

**2** "Installing Microsoft Exchange 2003 Server Service Pack 1 or 2" on page 45

**3** "Installing MSXML 4.0 SP2 (for Microsoft Exchange 2003)" on page 46

**4** "Checking Domain Controller Properties (for Microsoft Exchange 2003)" on page 46

**5** "Configuring Firewalls for Use with SSSE" on page 49

**6** "Installing Siebel Server for PIMSI Dispatcher" on page 50

**7** "Installing Siebel Server for PIMSI Engine" on page 51

**8** "Installing Siebel Exchange Connector" on page 52

To prepare the Microsoft Exchange Server 2003 environment, perform Step 1 through Step 4 on page 44. Except where otherwise indicated, perform these tasks on each PIMSI Engine computer and each Exchange Connector computer. Then perform Step 5 on page 44 through Step 8 on page 44.

## Installing Exchange 2003 System Management Tools

The following procedure briefly describes how to install Exchange 2003 System Management Tools on Exchange Connector computers.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44.

**NOTE:** This task must be performed for all Exchange Connector computers, but is not required for PIMSI Engine computers that do not run Exchange Connector.

### To install the Exchange 2003 System Management Tools

1 Insert the Microsoft Exchange 2003 installation CD into your target server.

2 From the Microsoft Exchange 2003 Setup choose the Custom setup.

3 From the Custom setup screen install only the Exchange System Management Tools.

## Installing Microsoft Exchange 2003 Server Service Pack 1 or 2

The following procedures describe how to install Microsoft Exchange 2003 Server Service Packs 1 and 2 on PIMSI Engine computers and Exchange Connector computers.

You must install either Microsoft Exchange 2003 Server Service Pack 1 *or* Microsoft Exchange 2003 Server Service Pack 2.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44.

### To install Microsoft Exchange 2003 Server Service Pack 1

1 On the computer where you want to install the software, open a browser window, navigate to the Microsoft downloads Web site at the following URL, and locate the Microsoft Exchange 2003 Server Service Pack 1:

http://www.microsoft.com/downloads

2 Create a folder named SP1 on the computer's local hard disk, or in another network-accessible location.

(You can either download this software to each computer where you want to install it, or you can download it to one network-accessible location, and install the software from that location for each applicable computer.)

3 Download the E3SP1ENG.exe file into the SP1 folder by clicking the E3SP1ENG.exe link on the Web page.

**4** Install the service pack according to the instructions provided by Microsoft.

### To install Microsoft Exchange 2003 Server Service Pack 2

**1** On the computer where you want to install the software, open a browser window, navigate to the Microsoft downloads Web site at the following URL, and locate the Microsoft Exchange 2003 Server Service Pack 2:

http://www.microsoft.com/downloads

**2** Follow the instructions provided on the Web page for downloading and extracting the Microsoft Exchange 2003 Server Service Pack 2.

**3** Run the installation package from the SP2 directory.

## Installing MSXML 4.0 SP2 (for Microsoft Exchange 2003)

The process of installing MSXML 4.0 SP2 in a Microsoft Exchange 2003 environment is the same as in a Microsoft Exchange 2000 environment. For more information about installing MSXML, see "Installing MSXML 4.0 SP2" on page 43.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44.

## Checking Domain Controller Properties (for Microsoft Exchange 2003)

The process of checking Domain Controller properties in a Microsoft Exchange 2003 environment is the same as in a Microsoft Exchange 2000 environment. For more information, see "Checking Domain Controller Properties" on page 44.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44.

# Process of Installing SSSE in a Microsoft Exchange 2007 Environment

This topic describes the process of installing SSSE in a Microsoft Exchange 2007 Server environment.

To install SSSE in a Microsoft Exchange 2007 Server environment, perform the following tasks:

**1** "Installing Exchange 2007 System Management Tools" on page 47

**2** "Installing Messaging Application Program Interface" on page 48

**3** "Installing MSXML 4.0 SP2 (for Microsoft Exchange 2007)" on page 48

**4** "Checking Domain Controller Properties (for Microsoft Exchange 2007)" on page 48

**5** "Configuring Firewalls for Use with SSSE" on page 49

**6** "Installing Siebel Server for PIMSI Dispatcher" on page 50

**7** "Installing Siebel Server for PIMSI Engine" on page 51

**8** "Installing Siebel Exchange Connector" on page 52

To prepare the Microsoft Exchange 2007 Server environment, first perform Step 1 through Step 4 on page 46. Except where otherwise indicated, perform these tasks on each PIMSI Engine computer and each Exchange Connector computer. Then perform Step 5 through Step 8 on page 47.

## Installing Exchange 2007 System Management Tools

The following procedure briefly describes how to install Exchange 2007 System Management Tools on Exchange Connector computers.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

**NOTE:** This task must be performed for all Exchange Connector computers, but is not required for PIMSI Engine computers that do not run Exchange Connector.

Microsoft Exchange 2007 is a 64-bit application but the Siebel Server and the Exchange Connector are 32-bit applications. Microsoft does, however, provide a 32-bit version of the Exchange 2007 System Management Tools and this is the version you must use with SSSE. (Although a full 32-bit version of Microsoft Exchange 2007 is provided, only the 32-bit System Management Tools are supported for production use.)

### *To install the 32-bit version of Microsoft Exchange 2007 System Management Tools*

**1** On the computer where you want to install the software, open a browser window, navigate to the Microsoft downloads Web site at the following URL, and locate the 32-bit version of Microsoft Exchange 2007 System Management Tools:

http://www.microsoft.com/downloads

**2** Create a folder on the computer's local hard disk, or in another network-accessible location.

**3** Download E2K7EN32.exe to the folder you created by clicking the Download button.

   **NOTE:** If you have installed Microsoft Exchange Server 2007 Service Pack 1, download E2K7SP1EN32.exe instead of E2K7EN32.exe.

**4** Open the folder you created in Step 2 on page 47, and double-click E2K7EN32.exe (or E2K7SP1EN32.exe).

**5** In the Choose Directory for Extracted Files dialog box, specify the location of the Exchange System Management Tools folder, and click OK.

**6** When the self-extraction process is complete, click OK.

**7** Install the Exchange 2007 System Management Tools using the instructions provided by Microsoft. Select the following options:

   ■ On the Microsoft Exchange 2007 Setup screen, select the Custom setup

■ On the Custom setup screen, select only the Exchange System Management Tools option.

## Installing Messaging Application Program Interface

The following procedure briefly describes how to install the Messaging Application Program Interface (MAPI) on Exchange Connector computers.

When you install Exchange 2007 System Management Tools, the MAPI interface is not installed by default. You must install the MAPI interface separately after installing the Exchange 2007 System Management Tools.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

**NOTE:** This task must be performed for all Exchange Connector computers, but is not required for PIMSI Engine computers that do not run Exchange Connector.

### To install the MAPI interface

1 On the computer where you want to install the software, open a browser window, navigate to the Microsoft downloads Web site at the following URL, and locate the Microsoft Exchange Server 2007 MAPI software:

http://www.microsoft.com/downloads

2 Create a folder on the computer's local hard disk, or in another network-accessible location.

3 Click the Download link on the Web page to copy the MAPI software to the folder you created.

4 Install the software by double-clicking the ExchangeMapiCdo.EXE file.

## Installing MSXML 4.0 SP2 (for Microsoft Exchange 2007)

The process of installing MSXML 4.0 SP2 in a Microsoft Exchange 2007 environment is the same as in a Microsoft Exchange 2000 environment. For more information about installing MSXML, see "Installing MSXML 4.0 SP2" on page 43.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

## Checking Domain Controller Properties (for Microsoft Exchange 2007)

The process of checking Domain Controller properties in a Microsoft Exchange 2007 environment is the same as in a Microsoft Exchange 2000 environment. For more information, see "Checking Domain Controller Properties" on page 44.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

# Configuring Firewalls for Use with SSSE

If your SSSE implementation includes firewalls between components, you must open specific ports in the firewall to allow the various parts of the implementation to communicate with each other. This topic briefly describes how to configure your firewall for use with SSSE.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41, "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44, and "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

### Firewall Located Between PIMSI Engine and Exchange Connector

A typical location for a firewall is between a Siebel Server that hosts a PIMSI Engine and a computer that runs the Siebel Exchange Connector. If this is where your firewall is located, have the firewall administrator open the ports listed in Table 10, and configure your Siebel Server to use the same range of ports for DCOM.

Table 10.    Ports for a Firewall Located Between PIMSI Engine and Exchange Connector

| Traffic Type | Firewall Port to Open |
| --- | --- |
| DCOM<br><br>**NOTE:** DCOM traffic requires the use of actual IP addresses. Firewalls that translate network addresses prevent proper operation. Therefore, Microsoft does not support DCOM calls that are made over Network Address Translation (NAT)-based firewalls.<br><br>For more information about using DCOM with firewalls, go to the Microsoft Support Web site at the following URL:<br><br>http://support.microsoft.com | Port range of your choosing.<br><br>For more information about using distributed COM with firewalls, go to the Microsoft Developer's Network Web site at the following URL:<br><br>http://msdn2.microsoft.com |
| End Point Mapper (EPM)/ Service Control Manager (SCM) | 135 |
| LDAP | 389 |
| LDAP to Global Catalog Server | 3268 |

### Firewall Located Between Exchange Connector and Exchange Server

It is possible (but not recommended) to place a firewall between a computer that runs the Siebel Exchange Connector and the Microsoft Exchange Servers that the Exchange Connector communicates with. In this case, the firewall administrator must open additional ports, such as those listed in Table 11. On your Siebel Server, be sure to configure corresponding port numbers and port number ranges.

Table 11.    Ports for a Firewall Located Between Exchange Connector and Microsoft Exchange Server

| Traffic Type | Firewall Port to Open |
|---|---|
| End Point Mapper (EPM)/ Service Control Manager (SCM) | 135 |
| HTTP | 80 or your designated HTTP port |
| LDAP | 389 |
| LDAP to Global Catalog Server | 3268 |
| MAPI to Exchange 2000/2003 | Values of your choosing, as described in Article #270836, Exchange Server Static Port Mappings, on the Microsoft Support Web site at the following URL: http://support.microsoft.com **NOTE:** As described in this article, you must create registry entries on the Exchange Server computer that specify static MAPI ports. |
| RPC (Remote Procedure Calls) | Port range of your choosing, as described in Article #154596, How to Configure RPC Dynamic Port Allocation to Work with Firewalls, on the Microsoft Support Web site at the following URL: http://support.microsoft.com/kb/154596 |

# Installing Siebel Server for PIMSI Dispatcher

This topic describes how to install Siebel Enterprise Server software on the computer that will host the PIMSI Dispatcher server component.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41, "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44, and "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

The installation of Siebel Enterprise Server software for PIMSI Dispatcher must have the following characteristics:

■ The PIMSI Dispatcher must be installed on a computer running a supported version of Microsoft Windows.

For information on supported operating system platforms, see *System Requirements and Supported Platforms* on Oracle Technology Network.

■ Install and configure the Siebel Server software components as follows:

■ Select the Custom installation type and make sure that PIM Server Integration is selected for installation.

■ Select the Object Manager Component.

■ Choose a language that is supported for SSSE.

For more information, see *System Requirements and Supported Platforms* on Oracle Technology Network.

■ After the installation of files is complete, continue following prompts to configure the Siebel Server software components.

For more detailed information about how to perform this task, see *Siebel Installation Guide* for the operating system you are using.

# Installing Siebel Server for PIMSI Engine

This topic describes how to install Siebel Enterprise Server software on the computer that will host the PIMSI Engine server component.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41, "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44, and "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

**CAUTION:** Do not install Microsoft Outlook on a computer that will run the Siebel Exchange Connector application because Microsoft Outlook overwrites a critical Microsoft Exchange library with a less functional version.

The installation of Siebel Enterprise Server software for PIMSI Engine must have the following characteristics:

■ Install and configure the Siebel Server software component on a supported Windows platform. For more information, see *System Requirements and Supported Platforms* on Oracle Technology Network.

■ Install and configure the Siebel Server software components as follows:

■ Select the Custom installation option and make sure that PIM Server Integration is selected to be installed.

■ Select the Object Manager Component.

- Choose a language that is supported for SSSE.

    For more information, see *System Requirements and Supported Platforms* on Oracle Technology Network.

- The Siebel Server service must be run using Domain User privileges, not Local System privileges.

- Note the Windows User Account Name that you specify.

    You will need to use the same User Account Name when you configure the DCOM security settings for the connector application.

- After the installation of files is complete, continue following prompts to configure the Siebel Server software component.

For more detailed information about how to perform this task, see *Siebel Installation Guide* for the operating system you are using.

# Installing Siebel Exchange Connector

Siebel Exchange Connector software acts as the liaison between PIMSI Engine and the Microsoft Exchange Server. This topic describes how to install Exchange Connector software.

This task is a step in "Process of Installing SSSE in a Microsoft Exchange 2000 Environment" on page 41, "Process of Installing SSSE in a Microsoft Exchange 2003 Environment" on page 44, and "Process of Installing SSSE in a Microsoft Exchange 2007 Environment" on page 46.

Exchange Connector software can run on the same computer as PIMSI Engine, or it can run on a separate computer that is equipped with the sspicnea.exe executable file and certain SSSE DLLs. Any Exchange Connectors that reside on computers that do not contain PIMSI Engines are known as *remote* Exchange connectors.

When you install PIMSI Engine, Exchange Connector software is automatically installed on the same computer. Whether or not you use the Exchange Connector software on a PIMSI Engine computer depends on later configuration steps.

There is no stand-alone installation available for remote Exchange Connectors. The following procedure describes how to install a remote Exchange Connector.

**CAUTION:** Never install Microsoft Outlook on a computer that will run the Siebel Exchange Connector application, as Microsoft Outlook overwrites a critical Exchange library with a less functional version.

### *To install a remote Exchange Connector*

- On a computer that does not contain PIMSI Engine software, follow the installation instructions found in "Installing Siebel Server for PIMSI Engine" on page 51.

    **NOTE:** For remote Exchange Connector computers, do not enable or run the Siebel Server or PIMSI Engine or PIMSI Dispatcher software that is installed along with the Exchange Connector. Configuration values for the Server, Engine, and Dispatcher can be arbitrary, since the remote Exchange Connector computer will not use them.

For information about configuring Exchange Connectors on PIMSI Engine computers and remote Exchange Connectors, see Chapter 5, "Configuring Siebel Server Sync."

# 5 Configuring Siebel Server Sync

This chapter provides instructions for configuring SSSE after installation. It includes the following topics:

# Process of Configuring SSSE

To configure SSSE, perform the following tasks:

**1** "Setting Up the Connector Share Directory" on page 58

**2** "Configuring Exchange Service Account Credentials" on page 60

**3** "Configuring SSSE Indexes" on page 64

**4** "Populating DB_LAST_UPD Columns" on page 66

**5** "Configuring the IIS Web Server for Microsoft Exchange" on page 67

**6** "Configuring Exchange Connector Application DCOM Security" on page 68

**7** "Adding Microsoft Exchange Servers to the Local Intranet Zone" on page 73

**8** "Modifying Log File Settings" on page 74

**9** "Configuring the Generic Siebel Organizer" on page 75

**10** "Configuring the Default Account" on page 76

**11** "Tuning SSSE Siebel Profile Parameters" on page 77

**12** "Configuring Exchange Connector Parameters" on page 84

**13** "Enabling and Disabling Components on SSSE Servers" on page 96

**14** "Restarting Siebel Services" on page 97

**15** "Configuring and Starting PIMSI Dispatcher" on page 97

The following configuration tasks are optional:

■ "Process of Configuring SSSE for Multiple Active Directory Forests" on page 91

■ "Setting Exchange Connector Log Levels" on page 96

■ "Configuring Support for Items Archived in Microsoft Outlook" on page 102

■ "Configuring Recurring Appointments" on page 103

# About Tuning SSSE for Optimal Performance

In general, SSSE works well when you configure your Siebel implementation using the scalability and sizing recommendations that are discussed in *Performance Tuning Guide*. For example, you can set parameters such as MaxMTServers and MinMTServers for the PIMSI Engine component to the values that suit your implementation as a whole, without especially considering SSSE performance issues. However, this topic discusses some configuration recommendations that are particularly important for ensuring optimum performance for SSSE.

In an SSSE implementation, two key parameters are MaxUsers and MaxTasks (also called Maximum Tasks). MaxUsers is an Exchange Connector parameter; MaxTasks is a PIMSI Engine server component parameter.

## MaxUsers

The MaxUsers parameter defines the maximum number of users that can be assigned to each instance of the Exchange Connector. You may want to modify the value of this setting depending on whether your Siebel implementation will be adding many new SSSE users in the near future:

■ **If you need to add many new SSSE users,** it is recommended that you set the MaxUsers parameter to a very low value, perhaps even the minimum value of 1. This is because all users of an Exchange Connector instance compete for the instance's single communication channel to the Exchange Server. Ongoing synchronizations rarely take long enough to cause problematic delays for other users of the same Connector instance, but initial extracts can monopolize a Connector's communication channel for significant time periods. To prevent any user's synchronization from ever being delayed while another user's initial extract completes, you can set MaxUsers to a value of 1, meaning that there is a dedicated Exchange Connector instance for each user being synchronized.

   **NOTE:** This configuration uses a comparatively large amount of memory on the computers that run Exchange Connector instances—each instance uses about 25 MB of memory.

■ **If you add few new SSSE users,** you can set the MaxUsers parameter to a higher value. This uses less memory for Connector instances, at the risk of occasional synchronization delays when an initial extract is in progress.

## MaxTasks

The MaxTasks setting controls the total number of users who are synchronized at one time. The value you choose for MaxTasks can limit the total number of Connector instances that run at any one time, preventing the Connector computers from becoming overloaded.

## Selecting and Testing MaxUsers and MaxTasks Values

The exact settings to use for your implementation depend on the hardware you use. Each Connector instance uses about 25 MB of memory. As an example, if you have between 1 and 2 GB of memory available for Connector instances to use, you could set MaxUsers to 1 and set MaxTasks to 50.

Perform some initial extract test runs to assess the amount of CPU and memory that are used with your initial parameter settings. Check the Connector computers and the Siebel Servers where your PIMSI Engine components are running. If you have ample CPU and memory still available, you can try increasing the value of MaxTasks.

At a later time, if initial extracts become comparatively rare, you may find that you obtain better performance by setting MaxUsers to a higher value.

### Choosing an Appropriate Dispatcher Repeat Interval

When you are satisfied with your MaxUsers and MaxTasks setting values, you might want to measure how quickly SSSE can process your entire population of ongoing SSSE users. You can use the information to adjust the values of the Repeating job settings for the PIMSI Dispatcher job, so that the Dispatcher runs at an interval of your choosing. Dispatcher jobs must not overlap. To ensure that this does not occur, set the Repeat From field of the repeating job to End. This ensures that each PIMSI Dispatcher cycle does not start until a specified interval after the previous PIMSI Dispatcher cycle has completed.

For more information about setting up PIMSI Dispatcher jobs, see "Configuring and Starting PIMSI Dispatcher" on page 97.

# Setting Up the Connector Share Directory

In SSSE's modular architecture, the Exchange Connector module provides the interface through which the PIMSI Engine communicates with an Exchange Server. For the Siebel-provided Exchange Connector, installation-specific configuration is required.

Part of the Exchange Connector is a Distributed Component Object Model (DCOM) application. SSSE starts DCOM applications as required. DCOM applications can run on any computer that hosts the Exchange Connector software, including any computer that hosts the PIMSI Engine component. For a DCOM application to function correctly, you must create a local shared directory on the computer where the DCOM application will run. Configure the security and permissions for the shared directory to give the user account that runs PIMSI Engine full access rights to the directory. This user is sometimes called the SSSE *startup user.* For more information about security requirements for DCOM applications, see "Configuring Exchange Connector Application DCOM Security" on page 68.

Perform the following tasks to create a shared directory, and then register its location with SSSE. These tasks are steps in "Process of Configuring SSSE" on page 56.

You must create a shared directory on each computer that will run the Exchange Connector applications, as described in the following procedure.

### *To create the shared connector directory*

1  On each computer where the Exchange Connector is installed, create a new folder.

    The folder name can be any name you choose.

2  Right-click the folder, and choose Sharing and Security.

3  In the Properties dialog box, select Share This Folder and enter a share name.

4  Click Permissions to display the Permissions for the *ShareName* dialog box.

5  Click Add and enter the user account name that the PIMSI Engine component runs under.

    If you want to increase security, also select Everyone and click Remove.

6  Click OK to display the Properties dialog box, and click the Security tab.

**7** Enter the user account name that the PIMSI Engine component runs under.

If you want to increase security, also select Everyone and click Remove.

**8** Click OK twice.

You must register the location of the shared directory you created with SSSE, as described in the following procedure.

### *To register the shared directory with SSSE*

**1** Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

**2** In the PIM Server Integration Configuration list, select the Exchange 2000 Connector record.

**3** In the Configuration Parameters list, click New, and then complete the fields as described in the following table.

| Field | Value |
|---|---|
| Section | Engine Shares |
| Parameter | Share*n* (where *n* is a unique number for each shared directory) |
| Value | *share pathname* (Example: \\*ComputerName*\*ShareName*, where *ComputerName* is the name of the Connector computer and *ShareName* is the name designating the shared directory.) |

**4** Repeat Step 3 for each shared directory that you created. Increment the Parameter value to match the instance of the Exchange Connector software.

For example, use either *Share1* or *Share01* for the first Exchange Connector instance, and *Share2* or *Share02* for the second Exchange Connector instance, and so on.

**5** Restart the Siebel Servers on your PIMSI Dispatcher and PIMSI Engine computers.

For information about restarting Siebel Servers, see *Siebel System Administration Guide*.

# About the Exchange Service Account

The user account under which the Exchange Connector runs is known as the Exchange service account. The Exchange service account must have read-write privileges to the Microsoft Exchange mailboxes of all synchronization-enabled users. Therefore, the Exchange service account must be a domain account, not a local account.

Provided there are trust relationships between all the Active Directory domains in which your Exchange Servers are deployed, you require only one Exchange service account for your whole Microsoft Exchange infrastructure, regardless of how many Exchange Servers you have. Exchange Servers are not listed in the Siebel database. Instead, the Exchange Connector queries the Active Directory Global Catalog at runtime to determine which Exchange Server handles the mailbox for a given user (using the user's SMTP email address).

The Exchange service account can be administered entirely by your Windows administrators. Siebel administrators do not have to know the login credentials for the Exchange service account.

To manage the process of giving the Exchange service account read and write access to SSSE user mailboxes, you can use a script that gathers information about the applicable users from the Siebel User Map view. For more information about the script, see "Configuring Exchange Service Account Credentials" on page 60. Alternately, you can place all Microsoft Exchange mailboxes for SSSE users on one or more designated Exchange Servers, and give the connector read and write access at the server level, but this approach is not recommended if Exchange user mailboxes are frequently moved between Exchange Servers.

**NOTE:** Each user to be synchronized must have an active Exchange mailbox and must not have the Active Directory attribute Hide from Exchange Address Lists set to TRUE. The Exchange service account must also have an active Microsoft Exchange mailbox.

# Configuring Exchange Service Account Credentials

The Exchange Connector uses the credentials of the user account under which it runs to interact with all of the Microsoft Exchange mailboxes in the Active Directory *forest* (one or more Active Directory domains that share certain characteristics and information). The Exchange Connector user account must have an active Microsoft Exchange mailbox account, and must have special mailbox access privileges to access other users' active Microsoft Exchange mailboxes. For more information about these privileges, see "About the Exchange Service Account" on page 59.

The task of configuring these credentials is a step in "Process of Configuring SSSE" on page 56.

The following procedures describe two ways of configuring the necessary credentials: a method that uses a script, and a manual method.

■ **Script Method.** The method that uses a script is recommended if the Connector application requires access to many users' mailboxes, as would be typical during deployment of SSSE. Two scripts are provided:

- ■ A script for use in Microsoft Exchange 2007 environments

   For additional information, see "Configuring Credentials Using a Script (Microsoft Exchange 2007)" on page 61.

- ■ A script for use in Microsoft Exchange 2000 or 2003 environments

   For additional information, see "Configuring Credentials Using a Script (Microsoft Exchange 2000 or 2003)" on page 61.

■ **Manual Method.** The manual method is recommended if you only have to grant access to a few users' mailboxes, such as when you want to enable synchronization for a few new employees.

   For additional information, see "Configuring Credentials Manually" on page 63.

**NOTE:** You can run the Exchange Connector application under the same user account as the PIMSI Engine component, or under a different user account. Using different user accounts separates Siebel security settings and Microsoft Exchange security settings as much as possible.

## Configuring Credentials Using a Script (Microsoft Exchange 2007)

The following procedure describes how to use a script in a Microsoft Exchange 2007 environment to configure the security settings that grant access to other users' mailboxes for the user account under which the Exchange Connector application runs.

### To configure Exchange 2007 service account credentials using a script

**1** Verify that the user account under which the Exchange Connector runs has an active mailbox on the Exchange Server, or create and activate one if necessary.

**2** Log in to your Siebel application as an administrator and navigate to Administration - PIM Server Integration, Sync Access Control, and then User Map.

**3** In the User Map list, select the users who will use SSSE, click Menu, then select Export.

**4** In the Export dialog box, choose settings as described in the following table, and then click Next.

| Setting | Value |
|---|---|
| Rows to Export | All Rows in Current Query |
| Columns to Export | Visible Columns |
| Output Format | Comma Separated Text File |

**5** In the File Download dialog box, click Save, then select an output file name and location.

**6** In the Export dialog box, click Close.

**7** Use a text editor to open the file you saved, delete all the columns of data except the column listing the email addresses of the SSSE users, then save the file using the ANSI encoding option.

**8** Navigate to the following archive file:

*install_directory*\siebsrvr\bin\ssse_exchange2k7_permissions.zip

where *install_directory* is the installation directory for your Siebel implementation.

**9** Extract the ssse_exchange2k7_permissions.ps1 file.

**10** Use a text editor to edit the ssse_exchange2k7_permissions.ps1 file in accordance with the instructions included in the file, then save the file.

**11** Run the script according to the instructions provided in the ssse_exchange2k7_permissions.ps1 file.

## Configuring Credentials Using a Script (Microsoft Exchange 2000 or 2003)

The following procedure describes how to use a script in a Microsoft Exchange 2000 or 2003 environment to configure the security settings that grant access to other users' mailboxes for the user account under which the Exchange Connector application runs.

### To configure Exchange 2000 or 2003 service account credentials using a script

**1**   Verify that the user account under which the Exchange Connector runs has an active mailbox on the Exchange Server, or create and activate one if necessary.

**2**   Log in to your Siebel application as an administrator and navigate to Administration - PIM Server Integration, Sync Access Control, and then User Map.

**3**   In the User Map list, verify that the column names appear in the following order:

   ■   Siebel User Login

   ■   PIM Server Type

   ■   PIM User Identifier

   ■   Language

   ■   Sync Enabled

   If necessary, use the Columns Displayed command to adjust the order of the columns.

**4**   In the User Map list, select the users who will use SSSE, click the Menu button and select Export.

**5**   In the Export dialog box, choose settings as described in the following table, and then click Next.

| Setting | Value |
| --- | --- |
| Rows to Export | All Rows in Current Query |
| Columns to Export | Visible Columns |
| Output Format | Comma Separated Text File |

**6**   In the File Download dialog box, click Save and select an output file name and location.

**7**   In the Export dialog box, click Close.

**8**   Use a text editor to open the file you saved, remove the column names, and then save the file using the ANSI encoding option.

**9**   Navigate to the following file:

   *install_directory*\siebsrvr\bin\ssse_exchange2k3_permissions.zip

   where *install_directory* is the installation directory for your Siebel implementation.

**10**  Extract the ssse_exchange2k3_permissions.vbs script file.

**11**  Using a text editor, edit the ssse_exchange2k3_permissions.vbs file in accordance with the instructions included in the file, then save the file.

**12**  Copy the ssse_exchange2k3_permissions.vbs file and the *usermap*.txt file you created in to another location, then navigate to that location from the Command prompt.

**13**  Run the ssse_exchange2k3_permissions.vbs script file.

   When you run the script file, you can either grant full mailbox access permission to a specified user, or to a list of users:

■ To grant full mailbox access permission to a specified user, specify the email identifier of the user. For example:

■ ssse_exchange2k3_permissions.vbs *email@domain.com*

■ To grant full mailbox access permission to a list of users, specify the name of the text file you created in . For example:

ssse_exchange2k3_permi ssi ons. vbs *map. txt*

## Configuring Credentials Manually

The following procedure describes how to manually configure the security settings that grant access to other users' mailboxes for the user account under which the Exchange Connector application runs.

### *To configure Exchange service account credentials manually*

**1** Verify that the user account under which the Exchange Connector application runs has a mailbox on the Microsoft Exchange Server, or create one if necessary.

**2** On any computer that has the Exchange System Management Tools installed (for example, the Exchange Server or any Siebel Exchange Connector computer), start the Active Directory Users and Computers console.

**3** From the View menu, select Advanced Features.

**4** In the Tree pane, select Users.

**5** Perform the following substeps:

    **a** In the Users pane, right-click the user name and choose Properties.

    **b** In the user's Properties dialog box, click the Exchange Advanced tab.

    **c** On the Exchange Advanced tab, click Mailbox Rights.

    **d** In the Permissions for Username dialog box, click Add and enter the user account under which SSSE is running.

    **e** Click Check Names.

        If there is no error message, click OK to return to the Permissions for *USERNAME* dialog box.

        If there is an error message, correct the user name before continuing.

    **f** In the Names list, make sure the user is selected.

    **g** In the Permissions list, select the Allow check box for Full mailbox access.

**6** Click OK twice to close the dialog boxes and put the Properties changes into effect.

**7** Repeat Step 5 and Step 6 for each user who will use SSSE.

# Process of Configuring the Database for Optimum SSSE Performance

To configure SSSE for optimum performance, perform the following tasks:

**1**  "Configuring SSSE Indexes" on page 64

**2**  "Populating DB_LAST_UPD Columns" on page 66

# Configuring SSSE Indexes

Version 7.8 of SSSE provides certain database table indexes that are inactive by default to allow for optimum performance in Siebel implementations that do not include SSSE. For optimum performance of SSSE, itself, it is strongly recommended that you activate and use these indexes. This is a task in "Process of Configuring the Database for Optimum SSSE Performance" on page 64.

For a list of the indexes to configure and the database tables that contain them, see Table 12. The DB_LAST_UPD field has been added to each of the listed tables specifically for SSSE.

Table 12.    Database Tables and Indexes that Affect SSSE Performance

| Table | Index |
|---|---|
| S_ACT_CONTACT | S_ACT_CONTACT_M1(DB_LAST_UPD,ACTIVITY_ID) |
| S_ACT_EMP | S_ACT_EMP_M5(DB_LAST_UPD,ACTIVITY_ID) |
| S_ADDR_ORG | S_ADDR_ORG_M7(DB_LAST_UPD,ROW_ID) |
| S_ADDR_PER | S_ADDR_PER_M6(DB_LAST_UPD,ROW_ID) |
| S_CONTACT | S_CONTACT_M23(DB_LAST_UPD,PAR_ROW_ID) |
| S_CONTACT_BU | S_CONTACT_BU_M3(DB_LAST_UPD,CONTACT_ID) |
| S_CONTACT_INFO | S_CONTACT_INFO_M1(DB_LAST_UPD, SYNC_FLG,TARGET_PER_ID) |
| S_EVT_ACT | S_EVT_ACT_M12(DB_LAST_UPD,ROW_ID |
| S_OPTY | S_OPTY_M10(DB_LAST_UPD,ROW_ID) |
| S_ORG_EXT | S_ORG_EXT_M23(DB_LAST_UPD,PAR_ROW_ID) |
| S_PARTY | S_PARTY_M5(DB_LAST_UPD,ROW_ID) |
| S_POSTN | S_POSTN_M4(DB_LAST_UPD,PAR_ROW_ID) |
| S_POSTN_CON | S_POSTN_CON_M4(DB_LAST_UPD,CON_ID) |
| S_PROJ | S_PROJ_M9(DB_LAST_UPD,ROW_ID) |
| S_SRV_REQ | S_SRV_REQ_M12(DB_LAST_UPD,ROW_ID) |
| S_USER | S_USER_M3(DB_LAST_UPD,ROW_ID) |

To activate the SSSE indexes, you must apply one of the following files, located in the Siebel Tools Client \REPPATCH installation directory, from within Siebel Tools:

■ SSSE_indexes_active_hor.sif (for Siebel Business Applications (HOR) installations)

■ SSSE_indexes_active_SIA.sif (for Siebel Industry Application (SIA) installations)

The following procedure describes how to activate the SSSE indexes.

### *To activate and use SSSE Indexes*

**1** Log in to Siebel Tools, version 7.8, connecting to the Server database.

**2** Lock the following projects:

■ Table Activity

■ Table Employee

■ Table Opty

■ Table Organization

■ Table Party

■ Table Person

■ Table Project

■ Table Service Request

**3** From the Tools menu, select Import from Archive.

**4** Navigate to the \\*Siebel Tools Client* \REPPATCH\ directory and select the SSSE_indexes_active_*xxx*.sif file that is appropriate for your environment.

The Import Wizard dialog box is displayed.

**5** For the Conflict Resolution option, select Overwrite the object definition in the repository. Click Next.

**6** When the Conflicting Objects list box is displayed, click Next without making any changes.

**7** In the Summary message box, click Yes, then click Finish.

**8** In the Siebel Tools Object Explorer list, select Table.

**9** Query for all of the tables that are listed in , select the current query result, and apply the changes to the database.

For detailed information on applying changes to the database, see *Configuring Siebel Business Applications*.

If your query result omits any of the required tables, select each omitted table individually and apply it.

**10** Migrate the repository changes to the test and production environments.

For further information on this task, see *Developing and Deploying Siebel Business Applications*.

# Populating DB_LAST_UPD Columns

If your Siebel implementation uses an Oracle or DB2 UDB database, then SSSE performance optimization requires that you place data in the DB_LAST_UPD column of each of the Siebel tables listed in Table 12 on page 64. These columns were added to the listed tables specifically for use by SSSE. When SSSE makes queries related to these new columns, Oracle and DB2 UDB database optimizer performance improves if the columns contain data.

Table 13.    Database Tables and Indexes that Affect SSSE Performance

| Table | Index |
| --- | --- |
| S_ACT_CONTACT | S_ACT_CONTACT_M1(DB_LAST_UPD,ACTIVITY_ID) |
| S_ACT_EMP | S_ACT_EMP_M5(DB_LAST_UPD,ACTIVITY_ID) |
| S_ADDR_ORG | S_ADDR_ORG_M7(DB_LAST_UPD,ROW_ID) |
| S_ADDR_PER | S_ADDR_PER_M6(DB_LAST_UPD,ROW_ID) |
| S_CONTACT | S_CONTACT_M23(DB_LAST_UPD,PAR_ROW_ID) |
| S_CONTACT_BU | S_CONTACT_BU_M3(DB_LAST_UPD,CONTACT_ID) |
| S_CONTACT_INFO | S_CONTACT_INFO_M1(DB_LAST_UPD, SYNC_FLG,TARGET_PER_ID) |
| S_EVT_ACT | S_EVT_ACT_M12(DB_LAST_UPD,ROW_ID |
| S_OPTY | S_OPTY_M10(DB_LAST_UPD,ROW_ID) |
| S_ORG_EXT | S_ORG_EXT_M23(DB_LAST_UPD,PAR_ROW_ID) |
| S_PARTY | S_PARTY_M5(DB_LAST_UPD,ROW_ID) |
| S_POSTN | S_POSTN_M4(DB_LAST_UPD,PAR_ROW_ID) |
| S_POSTN_CON | S_POSTN_CON_M4(DB_LAST_UPD,CON_ID) |
| S_PROJ | S_PROJ_M9(DB_LAST_UPD,ROW_ID) |
| S_SRV_REQ | S_SRV_REQ_M12(DB_LAST_UPD,ROW_ID) |
| S_USER | S_USER_M3(DB_LAST_UPD,ROW_ID) |

The following procedure describes how to populate these columns with the recommended data. This is a task in "Process of Configuring the Database for Optimum SSSE Performance" on page 64.

**NOTE:** It is recommended that you perform this task if your Siebel implementations uses Oracle or DB2 UDB databases. This task is not required if your Siebel implementation uses other database types.

### *To populate DB_LAST_UPD columns with data*

**1**    For each Siebel table that is listed in Table 12 on page 64, use one of the following methods to place data in the DB_LAST_UPD column of at least some rows:

■ Run a database script to copy the value of the LAST_UPD system field into the DB_LAST_UPD field of the same record, then update your database statistics.

■ If you are working in a Test environment where contact, calendar, and to do records are being modified as part of testing, enable database triggers for a time period that is long enough to capture some changes in all of the tables listed in Table 12 on page 64 (for example, perhaps one week), and then update your database statistics.

2 After you have used a script or database triggers to populate the DB_LAST_UPD columns with data, update your database statistics and then modify your database optimizer so that it is forced to consider the DB_LAST_UPD indexes.

**NOTE:** It is not possible to force a Microsoft SQL Server database optimizer to consider DB_LAST_UPD indexes.

# Configuring the IIS Web Server for Microsoft Exchange

SSSE has certain configuration requirements for the IIS Web server where the Exchange Server resides. This topic describes how to meet those requirements.

This task is a step in "Process of Configuring SSSE" on page 56.

The Siebel Exchange Connector uses the WebDAV extension to HTTP to perform calendar operations. The Secure Socket Layer protocol (SSL, which uses URLs that start with https:) is not supported. If the Web Server for Microsoft Exchange is set up to require authentication, then you must either set up the Exchange Connector application to run using the security context of a user account that the Web Server authentication will accept as valid, or else reconfigure the Web Server to allow anonymous access.

If you have the urlscan product installed, make sure that the urlscan.ini file (typically located at C:\WINNT\system32\inetsrv\urlscan\urlscan.ini) is set up to allow the following:

■ Make sure that urlscan allows for the following verbs:

  ■ PROPPATCH

  ■ PROPFIND

  ■ GET

  ■ DELETE

■ Make sure the Web server allows the HTTP request header Translate.

■ If you want SSSE to synchronize Microsoft Outlook-created calendar items that contain periods in the Subject field, then make sure AllowDotInPath is set to 1. This directs the Web server to accept URLs that contain periods in them. This setting is relevant because SSSE uses WebDAV to interact with Microsoft Exchange calendar records. This kind of interaction requires WebDAV to specify a URL that includes a file name that is based on the text of the subject for the calendar item.

■ Make sure that [DenyUrlSequences] is configured appropriately for your requirements. For example, if you want to allow Microsoft Outlook-created items with ".." in the subject, you must comment out the ".." line in the urlscan.ini file. You can comment out a line in the file by placing a semi-colon (;) at the beginning of the line.

■ If Web server logging options are turned on, log files are typically located in C:\WINNT\system32\inetsrv\urlscan\logs. When the Web server rejects a URL because it does not meet the criteria specified in the .ini file, Exchange Connector log files record the rejected URL. You can use the URL from the Connector log file to find entries in the Web server log file that will help you to determine why the URL was rejected. For example, the following error indicates that urlscan is configured to reject PROPPATCH requests:

> [06-03-2004 - 17:31:36] Client at 172.20.63.233: Sent verb 'PROPPATCH', which is not specifically allowed. Request will be rejected.

The following error indicates that urlscan is configured to reject the Translate request header:

> [06-03-2004 - 23:20:45] Client at 172.20.63.221: URL contains disallowed header 'translate:' Request will be rejected. Site Instance='1', Raw URL='/exchange/pimsi2202/Calendar/WzkBF100800142102ibndtst81.eml'

**NOTE:** Note the URL contains the user ID which may be useful for debugging purposes.

# Configuring Exchange Connector Application DCOM Security

You must configure DCOM security settings for the SSPICNEA and the SSPICNFM applications on each computer on which the Siebel Exchange Connector runs. You must also configure access to the PIMSI Engine component for the Exchange Connector application. These configuration tasks are described in this topic.

This task is a step in "Process of Configuring SSSE" on page 56.

Figure 3 illustrates the access settings that you must configure for the Exchange Connector
application.
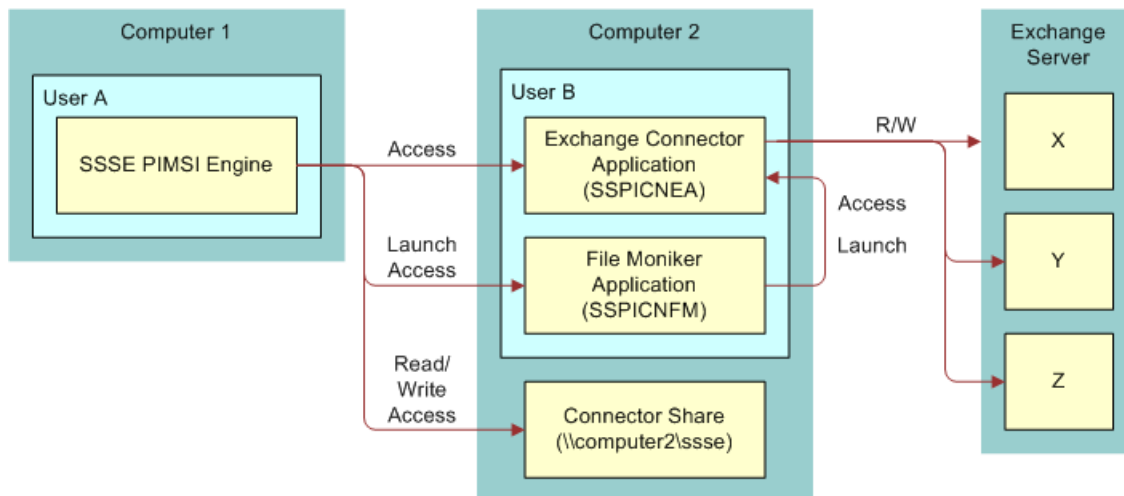


Figure 3.    Exchange Connector Application Access Requirements

## About Security Settings for the SSPICNEA Application

The SSPICNEA application is the Exchange Connector application that synchronizes data in Microsoft
Exchange user mailboxes.

Table 14 on page 69 lists the DCOM settings you must specify for the SSPICNEA application.

Table 14.    DCOM Configuration Settings for SSPICNEA (Exchange Connector Application)

| Security Setting | Required by Users | Explanation |
|---|---|---|
| Allow Access | PIMSI Engine user and Exchange Connector user | Both PIMSI Engine processes and SSPICNFM processes make RPC calls to methods in SSPICNEA. |
| Allow Launch | Exchange Connector user account | SSPICNFM has the identity of the Exchange Connector user. SSPICNFM launches SSPICNEA. |
| Identity | Exchange Connector user account | The SSPICNEA application uses the Exchange Connector user account. This user account also has access rights for the Microsoft Exchange mailboxes. |

**NOTE:** The Exchange Connector application, SSPICNEA, makes RPC calls to the PIMSI Engine.
Therefore, all PIMSI Engine computers must grant default DCOM security access to the Exchange
Connector user account. Procedures for granting this access follow the procedure for configuring
Exchange Connector DCOM settings, as described in "Configuring the Exchange Connector DCOM
Settings" on page 70.

## About Security Settings for the SSPICNFM Application

The SSPICNFM application is the file moniker application, which allows PIMSI Engine instances to
work with Exchange Connector application instances.

Table 15 lists the DCOM settings you must specify for the SSPICNFM application.

Table 15.    DCOM Configuration Settings for SSPICNFM (File Moniker Application)

| Security Setting | Required by Users | Explanation |
| --- | --- | --- |
| Allow Access | PIMSI Engine user account | PIMSI Engine processes run under the PIMSI Engine user account. PIMSI Engine makes RPC calls to methods in SSPICNFM. |
| Allow Launch | PIMSI Engine user account | PIMSI Engine launches SSPICNFM. |
| Identity | Exchange Connector user account | Connector components run under the Exchange Connector user account. |

## Configuring the Exchange Connector DCOM Settings

The following procedure provides detailed instructions for configuring the individual DCOM settings.

### To configure Exchange Connector application DCOM security

1   On each computer where you have installed Exchange Connector software and where you plan
to run the Exchange Connector applications, from the Windows Start menu, choose Run, enter
dcomcnfg.exe, and then click OK.

Depending on the version of dcomcnfg.exe that you run, you might have to navigate within the
dcomcnfg.exe application to a location such as Console Root, Component Services, Computers,
My Computer, and then DCOM Config.

If one or more DCOM Configuration Warnings are displayed, click No.

2   In the Distributed COM Configuration Properties dialog box, on the Applications tab, select
sspicnea, and then click Properties.

If your version of dcomcnfg.exe does not display an Applications tab, select the sspicnea
application in the right pane, and then right-click and choose Properties.

3   On the General tab of the Properties dialog box, verify the following:

   ■   That Application type is set to local server

■ That the local path is set to the correct location for the sspicnea application

**NOTE:** In Windows 2003, the path does not show up in the dcomcnfg UI. Instead, check the Windows Registry manually for this information. For information about the Registry settings to check, see Table 16 on page 72.

**CAUTION:** Using Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. There is no guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk. It is strongly recommended that you back up your Registry before editing it. For more information about using the Registry Editor, see the Microsoft Windows documentation.

If the path or application type is incorrect, you must close the dcomcnfg application, reregister all Siebel Exchange Connector components, and restart dcomcnfg.

To reregister Siebel Exchange Connector components, perform the following substeps:

**a** Open a Command Prompt window and navigate to *install_directory*\siebsrvr\bin, where *install_directory* is the installation directory for the Siebel Server software.

**b** Enter the following commands:

```
sspicnea.exe /RegServer
regsvr32 sspicneaps.dll
sspicnfm.exe /RegServer
regsvr32 sspicnfmps.dll
regsvr32 sspicnexps.dll
```

These commands register, respectively, the connector application, the proxy-stub component for the connector application, the file moniker, the proxy-stub component for the file moniker, and the proxy-stub component of the connector plug-in.

**4** In the sspicnea Properties dialog box, click the Location tab, select Run application on this computer, and clear all other check boxes.

**5** Click the Security tab, select one of the following settings (the wording depends on your software version), and then click Edit:

■ Use custom access permissions.

■ Customize in the Access Permissions area.

**6** Inspect the Registry Value Permissions dialog box to see if the user accounts under which the PIMSI Engine and Exchange Connector run have access to the sspicnea application.

If necessary, add these user accounts and specify Allow Access. Then click OK to return to the Properties dialog box.

**7** On the Security tab, select one of the following settings (the wording depends on your software version), and then click Edit:

■ Use custom launch permissions.

■ Select Customize in the Launch Permissions area.

**8** Inspect the Registry Value Permissions dialog box to see if the user account under which the Exchange Connector runs has permission to launch the sspicnea application.

If necessary, add this user account and specify Allow Launch. Then click OK to return to the Properties dialog box.

**9** Click the Identity tab, click This User, specify the user name and password for the user account under which the Exchange Connector application runs, and then click Apply and OK.

**NOTE:** Specifying this user account allows the Connector application to be authenticated in the Windows domain. You must specify the domain as part of the user name, using the format *domain_name\user_name.* The credential that is used must be a user account that has local administrator privileges on the computer where the Exchange Connector application runs, and that has the correct privileges for reading Microsoft Exchange mailboxes.

**10** Repeat Step 2 through Step 9, substituting sspicnfm for sspicnea in all steps, and making the following additional changes:

   **a** In Step 6, only the PIMSI Engine user account requires access to the sspicnfm application.

   **b** In Step 8, only the PIMSI Engine user account requires permission to launch the sspicnfm application, instead of the Exchange Connector user.

Table 16 lists the Windows 2003 Registry path settings you have to verify.

Table 16.	Exchange Connector Information to Verify in the Windows Registry

| Exchange Connector File | Windows Registry Path to Verify |
| --- | --- |
| sspicnea.exe | HKEY_CLASSES_ROOT\CLSID\{9DFC7C9A-727C-11D7-BF98-CDAEB956EB35}\LocalServer32 |
| sspicneaps.dll | HKEY_CLASSES_ROOT\CLSID\{9DFC7C99-727C-11D7-BF98-CDAEB956EB35}\InProcServer32 |
| sspicnexps.dll | HKEY_CLASSES_ROOT\CLSID\{2056A863-A523-4247-9347-F884E53D9974}\InProcServer32 |
| sspicnfm.exe | HKEY_CLASSES_ROOT\CLSID\{D9E08991-7245-11D7-BF98-CDAEB956EB35}\LocalServer32 |
| sspicnfmps.dll | HKEY_CLASSES_ROOT\CLSID\{D9E08990-7245-11D7-BF98-CDAEB956EB35}\InProcServer32 |

## Configuring Access to the PIMSI Engine for the Exchange Connector

You must complete an additional task to configure access to the PIMSI Engine component for the Exchange Connector application. The following procedures provide instructions for this configuration task for Windows 2000 and Windows 2003 environments.

The following procedure provides instructions for configuring access to the PIMSI Engine component for the Exchange Connector application for a Windows 2000 environment.

### To configure access to the PIMSI Engine for the Exchange Connector (Windows 2000)

**1** On each computer that runs the PIMSI Engine component, from the Windows Start menu, choose Run, enter dcomcnfg.exe, and then click OK.

If one or more DCOM Configuration Warnings are displayed, click No.

**2** Click the Default Security tab.

**3** In the Default Access Permissions area of the dialog box, click Edit Default.

**4** Add the user account that the Connector application will run under.

**5** Click OK twice.

The following procedure provides instructions for configuring access to the PIMSI Engine component for the Exchange Connector application for a Windows 2003 environment.

### To configure access to the PIMSI Engine for the Exchange Connector (Windows 2003)

**1** On each computer that runs the PIMSI Engine component, from the Windows Start menu, choose Run, enter dcomcnfg.exe, and then click OK.

**2** Within the dcomcnfg application, navigate to Console Root, Component Services, Computers, and then My Computer.

If one or more DCOM Configuration Warnings are displayed, click No.

**3** Right-click My Computer and select Properties.

**4** Click the Default COM Security tab.

**5** In the Access Permissions area of the dialog box, click Edit Default.

**6** Add the user account that the Connector application will run under.

**7** Click OK twice.

# Adding Microsoft Exchange Servers to the Local Intranet Zone

If the Exchange Connector application runs in a Windows 2003 environment, you must add all of your Exchange Servers to your local intranet Web content zone, as described in the following procedure.

This task is a step in “Process of Configuring SSSE” on page 56.

**NOTE:** This task is required only for Exchange Connector computers running Windows 2003.

### To add Exchange Servers to the Local Intranet Zone in Windows 2003

**1** On each Windows 2003 computer that runs the Siebel Exchange Connector, open the Internet Options Control Panel.

**2** Click the Security tab.

**3** Select Local intranet as your Web content zone, and then click Sites.

**4** For each of your Microsoft Exchange Servers, enter the HTTPURL for the server and click Add.

If the dialog box does not provide a field for entering URLs, click Advanced to display the correct dialog box for this step.

**5** Click OK twice to save the changes and exit from the Control Panel.

If you clicked Advanced in Step 4, click OK three times instead of twice.

# Modifying Log File Settings

SSSE log files contain information about SSSE operations. Each log file contains information for the operations that are carried out by an individual Siebel Server, and the amount of information that is logged depends on the log level that has been set. For further information on logging, see *System Monitoring and Diagnostics Guide for Siebel Business Applications*.

The following procedures describe how to change log levels for SSSE, and how to consolidate SSSE log files.

**NOTE:** Siebel Exchange Connector logs are separate from other SSSE logs. For more information about Exchange Connector log levels, see "Setting Exchange Connector Log Levels" on page 96.

These tasks are steps in "Process of Configuring SSSE" on page 56.

### To change log levels for SSSE

**1** On each Siebel Server that runs an SSSE component, open a Command Prompt window, then navigate to *install_directory*\siebsrvr\bin, where *install_directory* is the installation directory for your Siebel implementation.

**2** Log in to Server Manager at the server level for this computer, using a command such as the following:

srvrmgr /u *db_user_name* /p *db_password* /e *enterprise_server* /g *gateway_host* /s *server_name*

Use the name of the Siebel Server you are configuring for the value *server_name*.

**3** At the srvrmgr prompt, enter an appropriate command for the SSSE component log file you are configuring, such as one of the following commands:

Change evtloglvl PIMSIEngSvc=*n* for comp PIMSIEng

Change evtloglvl PIMSIEngSvc=*n* for comp PIMSIDispatcher

Substitute an integer from 1 to 5 for n, where 1 logs the least information and 5 the most.

By default, many SSSE log files are created. If you want, you can use the following procedure to consolidate these files into one log file for each SSSE component instance on a given Siebel Server. This means that if you consolidate all your SSSE log files, you get one log file for the PIMSI Dispatcher, on the computer where the Dispatcher runs, and you get one log file for each instance of the PIMSI Engine, on the computer where that instance runs.

### To consolidate SSSE log files

**1** On a Siebel Server that runs an SSSE component, open a Command Prompt window and navigate to *install_directory*\siebsrvr\bin, where *install_directory* is the installation directory for your Siebel implementation.

**2** Enter the following command to log in to Server Manager at the server level for this computer:

> srvrmgr /u *db_user_name* /p *db_password* /e *enterprise_server* /g *gateway_host* /s *server_name*

Use the name of the Siebel Server you are configuring for the value *server_name*.

**3** At the srvrmgr prompt, enter one the following commands:

■ To consolidate PIMSI Engine component log files, enter the following command:

> Change param LogUseSharedFile=true for comp PIMSIEng

■ To consolidate PIMSI Dispatcher component log files, enter the following command:

> Change param LogUseSharedFile=true for comp PIMSIDispatcher

The resulting consolidated log file is located in the standard log directory. The format of the file name is *component_name_taskId*.log, where *component_name* is either PIMSI engine or PIMSI Dispatcher and *taskId* is the task that was logged.

# Configuring the Generic Siebel Organizer

SSSE calendar record synchronization operations require you to configure a Generic Siebel Organizer Login. SSSE assigns the value of the Generic Siebel Organizer Login setting as the owner of any Siebel activity record for which either of the following statements is true:

■ The Microsoft Outlook meeting that corresponds to the Siebel activity is owned by a user who is not a valid employee in the Siebel implementation.

■ The Microsoft Outlook meeting that corresponds to the Siebel activity is owned by a user who does not have SSSE synchronization enabled.

The following procedure describes how to specify a value for the Generic Siebel Organizer Login. This task is a step in .

### To configure the Generic Siebel Organizer Login setting

**1** Decide which login you want to use for the Generic Siebel Organizer setting. The login must meet the following conditions:

■ The login must correspond to a valid Siebel employee record that includes an email address.

■ The login must be mapped to a valid Exchange account that has an Active Directory entry.

■ For a production environment, use the login name of a Siebel user who does not have synchronization enabled, such as the SADMIN administrator user. (Test environments do not need to meet this condition.)

**2** From the Siebel application menu, choose Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

**3** In the PIM Server Integration Configuration list, use standard query techniques to locate and select the record in which the value of the Profile Name field is Siebel.

**4** In the Configuration Parameters list, locate and select the record in which the value of the Parameter field is Generic Siebel Organizer.

**5** In this record, set the Value field to SADMIN, or to the login name of any other Siebel user who you want to designate as the generic organizer.

# Configuring the Default Account

Every business contact record that is stored in the Siebel database must be associated with an account. This association provides the account's primary address for the business contact. When a Siebel business contact is synchronized using SSSE, the Account and Account Location fields for the contact and the account's Primary Address are synchronized with the Company Name field, the Office field, and the Address field in Microsoft Exchange, respectively.

If a user enters a value for the Address field for a contact record in Microsoft Outlook, but does not enter a value for the Company field and the Office field, a problem occurs when SSSE attempts to synchronize the record, because the Siebel data model cannot associate the address with the contact if there are no values for Account Name and Location. For this reason, it is recommended that users always include a Company name and Office value when entering a contact address in Microsoft Outlook.

To work around this problem, you can specify account name and account location values that already exist in the Siebel database as the default values for the Account Name and Account Location fields. This allows the contact address from Microsoft Outlook to be synchronized in the Siebel database. However, that address is associated with the default account, since no account was supplied in Microsoft Outlook.

**NOTE:** The Account Location field appears in the Contacts list and the Accounts list as the Site field.

This task is a step in .

*To set defaults for the Account and the Account Location fields*

**1** Log in to your Siebel application as an administrator and navigate to Administration - PIM Server Integration, then Siebel Domains.

**2** In the Siebel Domains list, select Siebel Business Contact.

**3** In the Siebel Domain Fields list, select the record where the value of the Name field is Account.

**4** In the Default Value field of the selected record, specify an existing Siebel Account.

If a user enters an address for a contact in Microsoft Outlook without specifying an account, SSSE assigns the default account name to the contact record when synchronizing it with the Siebel database, and associates the address for the contact with this default account.

**5** In the Siebel Domain Fields list, select the record where the value of the Name field is Account Location.

**6** In the Default Value field of the selected record, specify an existing account location value that corresponds with the default account you specified in Step 4.

# Tuning SSSE Siebel Profile Parameters

SSSE contains various parameters that you can adjust to optimize performance. The following procedure describes how to change Siebel profile parameters. The profile applies to all PIMSI Engines in your Siebel Enterprise.

This task is a step in *"Process of Configuring SSSE" on page 56*.

### *To tune SSSE parameters in the Siebel profile*

**1** Log in to your Siebel application as an administrator and navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

**2** In the PIM Server Integration Configuration list, select the record in which the value of Profile Name is Siebel.

**3** In the Configuration Parameters list, modify the fields or add records as needed to tune the performance of your Siebel implementation, using the information in Table 17 on page 78.

Table 17.    Siebel Profile Configuration Parameters

| Section | Parameter | Default | Comment |
|---------|-----------|---------|---------|
| Siebel | AddAttendee | Y | The AddAttendee parameter allows you to specify that when SSSE synchronizes data relating to appointment attendees, the most current data in Microsoft Outlook takes precedence over related data in the Siebel application. |
| | | | If this parameter is set to Y, when SSSE first synchronizes an appointment created in Microsoft Exchange with the Siebel application, all the attendees included in the invitation who do not have synchronization enabled are added to the employee list for the Siebel calendar item, as is the meeting organizer, and the user whose records are currently being synchronized. Attendees who have synchronization enabled are added to the employee list when they accept or tentatively accept the meeting invite. |
| | | | If this parameter is set to N, all attendees are added to the employee list for the Siebel calendar item whether or not they have synchronization enabled and whether or not they have accepted the meeting invite. During the next synchronization cycle, SSSE creates Microsoft Exchange records for all the appointment attendees included in the Siebel calendar item. This can lead to a situation where a Microsoft Exchange record is created for an attendee who declines or deletes the invitation between the first and second synchronization cycles. |
| Siebel | AttendeeQueryForce EmailLower | FALSE | When synchronizing an appointment created in Microsoft Exchange with the Siebel application, force the email addresses of attendees to lower case when querying for the contact in the Siebel application. Because Microsoft Exchange and Siebel email addresses use mixed case or upper case letters, set this parameter to TRUE. |

Table 17.    Siebel Profile Configuration Parameters

| Section | Parameter | Default | Comment |
|---------|-----------|---------|---------|
| Siebel | DispCycleCount for GC | 12 | Determines how many times the Dispatcher runs before unneeded information is removed from the S_SD_SYNC_INFO table, where information is stored about data to synchronize. For example, if you run the Dispatcher every five minutes, unneeded data is removed once an hour. |
| Siebel | ExtractStartDate | 01/01/1980 | Determines which Calendar and To Do records will be excluded from synchronization because of their date settings. For more information, see "Factors That Determine Calendar Synchronization" on page 163 or "Factors That Determine To Do Record Synchronization" on page 172. |
| Siebel | ExtractStartDateFormat | MM/DD/YYYY | Date format for the ExtractStartDate parameter. SSSE uses the format that you specify in this setting to interpret the value of your ExtractStartDate setting correctly. It is not necessary for this format to match the date format that your Siebel application generally uses. |
| Siebel | ForceTranscode | FALSE | Forces text conversion to use transcode. Set this parameter to TRUE if your Siebel implementation uses a transcode database type. |
| Siebel | MaxAlarmLeadMinutes | Not applicable | Maximum number of minutes for an appointment alarm lead time. |
| Siebel | MaxUserExtractReq BatchSize | 20 | Maximum number of user extractions that can be requested in one synchronization request. |

Table 17.    Siebel Profile Configuration Parameters

| Section | Parameter | Default | Comment |
|---------|-----------|---------|---------|
| Siebel | NotificationFrequency | 2 | If the PIMSI Dispatcher detects that a PIMSI Engine component is not responding correctly, the Dispatcher signals the Engine to discover whether it can respond. This parameter specifies how many times the Dispatcher should request a response from an unresponsive PIMSI Engine before attempting to recover it.<br><br>**NOTE:** The PIMSI Dispatcher automatically attempts to recover any PIMSI Engine that has failed to respond to the set number of requests. See the Dispatcher log for records of any unresponsive Engines. See the individual Engine log for information that may help you diagnose why the Engine stopped responding. |
| Siebel | OnlySyncCategorized Contacts | FALSE | Determines whether or not Initial Extract operations synchronize Exchange Contact records that have the Category field set to a specified value. Case-insensitive. For more information about this parameter, see "Initial Extract and Ongoing Extract" on page 23. |
| Siebel | ReconciliationDuration | 60 | Specifies how many seconds the PIMSI Dispatcher waits after signaling a PIMSI Engine. If the Dispatcher does not receive a response within this time period, the Dispatcher either attempts to recover the Engine or signals it again, depending on whether or not the number of unsuccessful signals has reached the value of the Notification Frequency setting. |
| Siebel | ResolveContactbyEmail Address | FALSE | If set to TRUE, use email addresses, as well as first and last names, when trying to resolve contacts. |

# About Mapping Exchange Connectors to Microsoft Exchange Servers

This topic provides background information about how Exchange Connector applications work with Microsoft Exchange Servers. It is important to understand this information before proceeding to the next task, "Configuring Exchange Connector Parameters" on page 84.

There are two basic ways you can configure Exchange Connector applications to work with Microsoft
Exchange Servers: without Connector Application Map records and with Connector Application Map
records. The following paragraphs describe each type in more detail.

**NOTE:** If you have implemented a simple network topology, you do not have to map Exchange
Connectors to Microsoft Exchange Servers. You only have to configure Connector Application Map
records if you want to specify different Exchange Connector settings for different Microsoft Exchange
Servers, or if you have implemented a distributed network topology for performance reasons.

## Configurations That Exclude Connector Application Map Records

In this configuration type, you do not create any Connector Application Map records. SSSE
dynamically assigns an Exchange Connector application to synchronize each user, as required—any
Exchange Connector computer can perform synchronizations with any Microsoft Exchange Server.
This configuration type is most useful for load balancing in implementations where wide-area
network performance is not a major factor, or where the number of Microsoft Exchange Servers
exceeds the number of Exchange Connector computers.

This configuration type has the following characteristics:

■ There are no Connector Application Map records in the Siebel implementation.

■ Each Exchange Connector computer can synchronize users on any Microsoft Exchange Server.

■ When the Exchange Connector has to run a new instance of the application, it counts the number
of Exchange Connector applications that are running on each Exchange Connector computer. The
Connector runs the new instance of the application on the computer that has the fewest
Exchange Connector applications running when it is checked.

For information about creating the Engine Shares that designate which computers run the Exchange
Connector application, see "Setting Up the Connector Share Directory" on page 58.

## Configurations That Include Connector Application Map Records

In this configuration type, you create Connector Application Map records that assign specific
Exchange Connector computers to handle synchronizations with specific Microsoft Exchange Servers.
This configuration type is most useful if you want to optimize performance in a Siebel implementation
that has Microsoft Exchange Servers in widely scattered geographical locations—performance may
be optimized when each Exchange Connector computer is located close to the Exchange Server that
the Connector synchronizes.

This configuration type has the following characteristics:

■ Each Connector Application Map record assigns an Exchange Connector computer to synchronize
users on a single Microsoft Exchange Server. In Connector Application Map records, each
Exchange Connector computer is represented by its Engine Share. Engine Shares are UNC path
configurations that indicate which computers are to run Exchange Connector applications
(sspicnea.exe files).

■ A Microsoft Exchange Server can be listed in multiple Connector Application Map records, but Exchange Connector computers can only be designated by one record each. This means each Microsoft Exchange Server can be synchronized by multiple Exchange Connector computers, but no Exchange Connector computer can be assigned to synchronize more than one Exchange Server.

■ The maximum number of Connector Application Map records you can create is the same as the number of Engine Shares you have.

■ If the Connector Application Map does not assign any Exchange Connector computers to a particular Microsoft Exchange Server, then you must configure the computer that runs the PIMSI Engine service to run Exchange Connector applications. The PIMSI Engine computer is the one computer that can synchronize users whose mailboxes are located on Exchange Servers that are not listed in Connector Application Map records. If the PIMSI Engine computer is not configured to run the Exchange Connector, then synchronization will fail with an error message for users whose mailboxes are located on the unmapped Microsoft Exchange Servers.

■ When the Exchange Connector has to run a new instance of the application, it counts the number of Exchange Connector applications that are running on each Exchange Connector computer that is assigned to the relevant Microsoft Exchange Server. The Connector runs the new instance of the application on the computer that has the fewest Exchange Connector applications running when it is checked.

# About Using Exchange Virtual Directories

If your Siebel implementation uses any Microsoft Exchange virtual directories that have names other than the single word Exchange, then you must include information about these directory names in the parameters for the Siebel Exchange Connector. This topic describes how the necessary parameter names and values must relate to each other. For more information on setting the parameters, see .

Table 18 shows the Section, Parameter, and Value relationships that you must create to use virtual directories with non-default names. In this table, *n* can be any character that is unique for its profile section. For each Microsoft Exchange Server that you want to associate with a virtual directory, you have to set one Exchange Virtual Directory Map parameter, one Exchange Server parameter, and at least one Virtual Directory parameter.

Table 18.    Exchange 2000/2003 Connector Parameters Related to Virtual Directories

| Section | Parameter | Comment |
|---|---|---|
| Calendar | Exchange Virtual Directory Map *n* | In the Value field, enter Virtual Directory Map *n* exactly as you will later name a profile section. In the Parameter field, be sure to separate each word from the next with a single space. |
| Virtual Directory Map *n* | Exchange Server | In the Value field, enter the name of an Exchange Server. Use all upper case characters. Do not include domain information in the server name (that is, enter EXCHG01, rather than EXCHG01.YOURCOMPANY.COM). In the Parameter field, be sure to separate each word from the next with a single space. |
| Virtual Directory Map *n* | Virtual Directory 1 | In the Value field, enter the name of a virtual directory that is associated with the Exchange Server for the current Virtual Directory Map. If your implementation includes a virtual directory called Exchange, you must specify it as a value for one of your virtual directories. In the Parameter field, be sure to separate each word from the next with a single space. |
| Virtual Directory Map *n* | Virtual Directory 2 | (Optional) In the Value field, enter the name of another virtual directory associated with the Exchange Server for the current Virtual Directory Map. In the Parameter field, be sure to separate each word from the next with a single space. |

See Table 19 for an example of the kind of values you must specify for these related settings.

Table 19.    Example of Exchange Connector Setting Values Related to Virtual Directories

| Section | Parameter | Value |
|---|---|---|
| Calendar | Exchange Virtual Directory Map 1 | VirtDirSection1 |
| VirtDirSection1 | Exchange Server | EXCHSRV1 |
| VirtDirSection1 | Virtual Directory 1 | VirtDir1 |
| VirtDirSection1 | Virtual Directory 2 | VirtDir2 |

# Configuring Exchange Connector Parameters

The Siebel Exchange Connector contains various parameters that you can adjust to optimize performance. The following procedure describes how to tune Exchange Connector parameters.

This task is a step in "Process of Configuring SSSE" on page 56.

Exchange Connectors can run on any computer that is equipped with the sspicnea.exe executable file and certain SSSE DLLs. Exchange Connector, PIMSI Engine, and PIMSI Dispatcher can all be located on different computers.

If an SSSE deployment contains any Exchange Connector applications that reside on computers that do not contain PIMSI Engines, those Exchange Connector applications are known as remote Exchange Connector applications. For information about installing Exchange Connectors, see "Installing Siebel Exchange Connector" on page 52.

Use the following procedure to configure Exchange Connector parameters on any computer where Exchange Connector software is installed.

### To configure Siebel Exchange Connector parameters

1   Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

2   In the PIM Server Integration Configuration list, select the record in which the value of Profile Name is Exchange 2000 Connector.

   **NOTE:** This is the correct record to select for either 2000 or 2003 Exchange environments.

3   In the Configuration Parameters list, create or modify and save records as required, using the information in Table 20 on page 84.

   You might be able to use default values for most of the parameters listed. However, you must create records for the Engine Shares section.

Table 20.   Exchange 2000 Connector Configuration Parameters

| Section | Parameter | Default | Comments |
|---|---|---|---|
| Calendar | QueryExternalDomains | FALSE | When the Exchange Connector cannot locate a calendar item attendee in the Active Directory Global Catalog, this setting determines whether or not to perform an exhaustive Active Directory search. |

Table 20.   Exchange 2000 Connector Configuration Parameters

| Section | Parameter | Default | Comments |
|---------|-----------|---------|----------|
| Connector Application Map | Name of an Engine Share (for example, Share1 or Share01) | Not applicable | (Optional) If your Microsoft Exchange Servers are located in several geographical locations, you may be able to improve performance by assigning synchronization tasks for each Exchange Server to Exchange Connector applications that run nearby.<br><br>To do this, create one or more records with Section set to Connector Application Map. In the Parameter field of each record, enter the name of one of your Engine Shares (the shared directories where Exchange Connector applications are run). In the Value field, enter the name of the Microsoft Exchange Server that you want that Exchange Connector to serve.<br><br>You can create as many Connector Application Map records as you have Engine Shares. For more information about this setting, see "About Mapping Exchange Connectors to Microsoft Exchange Servers" on page 80.<br><br>**NOTE:** If you have sync-enabled users on more Microsoft Exchange Servers than you have Engine shares, make sure there is an Engine Share on the PIMSI Engine computer that is not associated with any particular Microsoft Exchange Server. This share must serve users on any Exchange Server that is not explicitly specified in a Connector Application Map record. |

Table 20.    Exchange 2000 Connector Configuration Parameters

| Section | Parameter | Default | Comments |
|---------|-----------|---------|----------|
| Engine Shares | Share*n* or Share*nn* (for example, Share1 or Share01)<br><br>If you have to specify more than nine engine shares, you must use the Share*nn* format for all the share names. | Not Applicable | The *n* in the parameter name must be a unique number. Specify the value of each share as a UNC path to a remote or local file system directory that has been shared, using the format \\computer_name\share_name. Connector applications are run on the computer indicated in the share. For more information about configuring shares, see "Setting Up the Connector Share Directory" on page 58. |
| PreferredGCServers | GCServer*n* (replace *n* with 1, 2, and so on) | Not applicable (Enter the name of a Global Catalog server) | (Optional) Indicates one or more preferred Active Directory Global Catalog servers for the Exchange Connector to contact when identifying SSSE user mailboxes. |
| SyncOptions | PreserveAttachments | TRUE | Indicates whether or not the Connector should preserve PIM attachments for noncalendar domains. If this parameter is set to FALSE, attachments are removed when the Connector updates the record in Exchange. This setting does not affect Siebel attachments. |
| SyncOptions | PreserveUnmappedFields | TRUE | Indicates whether or not the Connector should preserve the data for fields which are not mapped for synchronization for noncalendar domains. If this parameter is set to FALSE, any data in an unmapped field is removed from the record in Exchange. |

Table 20.    Exchange 2000 Connector Configuration Parameters

| Section | Parameter | Default | Comments |
|---------|-----------|---------|----------|
| Timeouts | Connect | 180 seconds | When an Exchange Connector application first runs, it waits the configured number of seconds for a PIMSI Engine instance to establish a connection with it. If no connection is established, the Exchange Connector application shuts down to conserve resources. You may want to increase the value of this setting if your users run SSSE over a slow network.<br><br>**NOTE:** The application is automatically restarted if the PIMSI Engine requests synchronization for more users than currently running Exchange Connector instances can handle. |
| Timeouts | Reconnect | 30 seconds | When a running Exchange Connector application detects that no PIMSI Engine instance is exchanging data with it, the application waits the configured number of seconds for a PIMSI Engine instance to reestablish a connection. If no connection is established, the Exchange Connector application shuts down to conserve resources. You may want to increase the value of this setting if your users run SSSE over a slow network. |

Table 20.    Exchange 2000 Connector Configuration Parameters

| Section | Parameter | Default | Comments |
|---------|-----------|---------|----------|
| UsersPerApplication | MaxUsers | 10 | Maximum number of users each instance of a Connector application can simultaneously synchronize. Maximum value is 200.<br><br>You may find that performance improves if you use a low value for this setting during initial extract operations.<br><br>For more information about this setting, see "About Tuning SSSE for Optimal Performance" on page 56. |

# Using Fully Qualified Email Addresses

Microsoft Exchange Server 2003 SP1 introduced support for full SMTP addresses. With earlier versions of Exchange Server, the URL used to access a user's Microsoft Exchange mailbox using the WebDAV calls issued by SSSE was constructed using the left-hand part of the email address. For example, for user email@domain.com, the following URL was used to access the Exchange mailbox:

http://server/exchange/email

Starting in Microsoft Exchange Server 2003 SP1, full SMTP addresses can optionally be used to access a Microsoft Exchange mailbox. For example, for user email@domain.com, the following URL can be used to access the Microsoft Exchange mailbox:

http://server/exchange/email@domain.com

Using full SMTP addresses allows virtual directories on a server to support multiple SMTP domains, and eliminates the necessity to match virtual directories on the mailbox server.

This task is an optional step in "Process of Configuring SSSE" on page 56.

## About the UserMailBoxIDSource Parameter

With Microsoft Exchange Server 2003 SP1, the use of fully qualified email addresses is optional. With Microsoft Exchange Server 2007, however, you must use full SMTP email addresses. You can specify the method used to access users' mailboxes using the Siebel Exchange Connector configuration parameter, UserMailBoxIDSource. Valid values for the UserMailBoxIDSource parameter are:

■ EMAILLEFT. Use the left-hand part of the email address (default value)

■ EMAILFULL. Use the full SMTP email address (required for Microsoft Exchange 2007)

■ ACCOUNT. Use the Active Directory login name (AD attribute sAMAccountName)

If you do not specify a value for the UserMailBoxIDSource parameter, the EMAILLEFT value is used by default for all Exchange Servers.

You can either set the UserMailBoxIDSource parameter for all Exchange Servers in your environment or for individual Exchange Servers.

The following procedure describes how to set the UserMailBoxIDSource parameter for all Exchange Servers in your environment.

### *To set a system-wide value for the UserMailBoxIDSource parameter*

**1** Follow the procedure to configure Exchange Connector parameters as described in "Configuring Exchange Connector Parameters" on page 84.

**2** Specify values similar to the following for the Calendar section in the Configuration Parameters list.

| Section | Parameter | Value |
| --- | --- | --- |
| Calendar | UserMailBoxIDSource | EMAILFULL |

All Exchange Servers will use full SMTP email addresses for WebDAV calls to access user's mailboxes.

**3** Restart the Siebel Server service on any server hosting the PIMSI Dispatcher and PIMSI Engine components. You must also restart any server on which the Exchange Connector component is installed.

If your environment contains both Microsoft Exchange 2003 and Microsoft Exchange 2007 servers, you might want to specify Exchange Server-specific values for the UserMailBoxIDSource parameter. The following procedure describes how to do this.

### *To set a value for the UserMailBoxIDSource parameter for an individual Microsoft Exchange Server*

**1** Follow the procedure to configure Exchange Connector parameters as described in "Configuring Exchange Connector Parameters" on page 84.

**2** Create a set of Exchange Server Map settings for each server that is not to use the system-wide
default value.

For example, if ExchangeServer1 is a Microsoft Exchange 2007 server, requiring fully qualified
email addresses, and ExchangeServer2 is a Microsoft Exchange 2003 server, requiring the left-
hand part of the email address for WebDAV calls, specify values similar to the following in the
Configuration Parameters list:

| Section | Parameter | Value |
| --- | --- | --- |
| Calendar | ExchangeServerMap | S1 |
| S1 | Exchange Server | (ExchangeServer1) |
| S1 | UserMailBoxIDSource | EMAILFULL |
| Calendar | ExchangeServerMap | S2 |
| S2 | Exchange Server | (ExchangeServer2) |
| S2 | UserMailBoxIDSource | EMAILLEFT |

**3** Restart the Siebel Server service on any server hosting the PIMSI Dispatcher and PIMSI Engine
components. You must also restart any server on which the Exchange Connector component is
installed.

# About Configuring SSSE for Multiple Active Directory Forest Environments

SSSE provides support for Microsoft Exchange environments that include more than one Active
Directory forest, provided you enable SSSE to use fully qualified email addresses. For information on
using fully qualified email addresses with SSSE, see "Using Fully Qualified Email Addresses" on
page 88.

The Exchange Connector acts as an intermediary for all communications between the PIMSI engine
and the Exchange Server. The Exchange Connector runs using the credentials of a specific user
account that has access to the mailboxes of Active Directory (AD) users who have been enabled for
synchronization.

The Siebel Server or Servers on which the PIMSI Dispatcher and the PIMSI Engine are located can
be in a different AD forest to the domain in which the Exchange Connector(s) server is located,
provided there is a trust relationship between the domains. Each Exchange Connector can also reside
in a different AD forest to any other Exchange Connectors. If an Exchange Connector is configured
to process communications with a specific Microsoft Exchange Server, the Exchange Connector must
run as a user account in the same domain as the Microsoft Exchange Server, or in a domain that is
a trusted domain of the Microsoft Exchange Server.

Figure 4 on page 91 illustrates the SSSE multiforest architecture (each domain is in a separate AD forest).
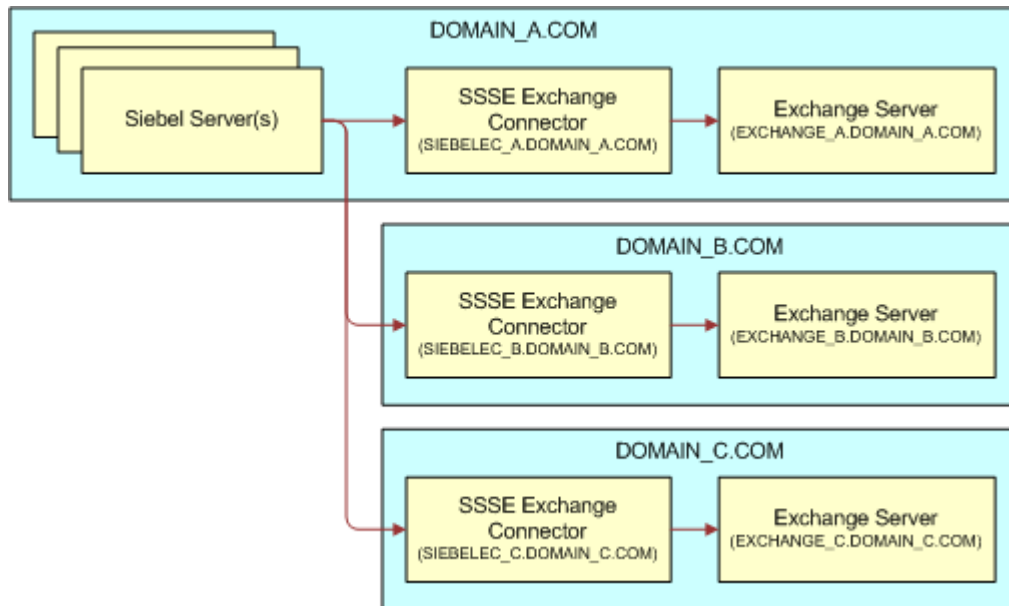


Figure 4.    SSSE Multiforest Remote Connector Architecture

## Requirements for Using SSSE with Multiple Active Directory Forests

To run SSSE in a multiple AD forest Microsoft Exchange environment, the following requirements must exist:

■ You must be using Microsoft Exchange 2003 SP1 or later, or Microsoft Exchange 2007 or later

■ There must be a trust relationship between the domain in which the Siebel Servers run (for example, *Domain_A*) and each of the other domains (for example, *Domain_B* and *Domain_C*). There does not necessarily have to be a trust relationship between the other domains, that is, between *Domain_B* and *Domain_C*, each of which contains an Exchange Connector and Exchange Server.

For information on configuring SSSE to run in a Microsoft Exchange environment with more than one AD forest, see "Process of Configuring SSSE for Multiple Active Directory Forests" on page 91.

# Process of Configuring SSSE for Multiple Active Directory Forests

This topic outlines the steps you must perform to use SSSE in a multiple AD forest Microsoft Exchange environment. For additional information on using SSSE in multiple AD forest environments, see "About Configuring SSSE for Multiple Active Directory Forest Environments" on page 90.

To configure SSSE to run in a multiple AD forest environment, perform the following tasks:

**1** "Setting Up Administrator Users in a Multiple Active Directory Forest Environment" on page 92

**2** "Configuring the Exchange Connector in a Multiple Active Directory Forest Environment" on page 92

**3** "Providing Access to the PIMSI Engine in a Multiple Active Directory Forest Environment" on page 94

**4** "Configuring SSSE for Multiple Active Directory Forest Support" on page 94

## Setting Up Administrator Users in a Multiple Active Directory Forest Environment

For each domain in the Microsoft Exchange environment, you must create an SSSE administrator user (this is the user name under which the Exchange Connector runs) for authentication between the Exchange Connector and the Microsoft Exchange Server.

This task is a step in "Process of Configuring SSSE for Multiple Active Directory Forests" on page 91.

The following procedure describes how to set up the administrator user for each domain in the Exchange environment.

### *To set up the administrator user in each domain*

**1** Create an administrator user in the Active Directory. The login name and left-hand side of the email address you specify for the administrator user must be unique across all domains in your SSSE Exchange environment. For example, use login names similar to the following:

SSSE_DomainA@Domain_A.com

SSSE_DomainB@Domain_B.com

**2** Grant the administrator user Full Mailbox Access privileges to the mailboxes of all users who will synchronize using SSSE. For information on this task, see "Configuring Exchange Service Account Credentials" on page 60.

**3** Make the SSSE administrator user a local administrator on each computer on which the Exchange Connector is installed.

## Configuring the Exchange Connector in a Multiple Active Directory Forest Environment

This topic describes how to install and configure the Exchange Connector on each computer on which it will run in the multiple AD forest Microsoft Exchange environment.

This task is a step in "Process of Configuring SSSE for Multiple Active Directory Forests" on page 91.

Perform the following procedure for each Exchange Connector in your environment.

### To install and configure the Exchange Connector

**1** Log into the Exchange Connector computer using the SSSE administrator user you created for the computer, as described in "Setting Up Administrator Users in a Multiple Active Directory Forest Environment" on page 92.

**2** Run the Configuration Wizard to install the Siebel Server software. Select the following options:

- Install only the Siebel Server component
- Select the Custom install option
- Select the PIMSI components to install

**3** Create a share on the Exchange Connector computer, for example:

    \\SIEBELEC_A.DOMAIN_A.COM\PIMSI

**4** Grant full permissions to the shared directory to the Siebel Service user; that is, the user account that runs the PIMSI engine, for example, *SADMIN@DOMAIN_A.COM*.

For information on the Connector share directory, see "Setting Up the Connector Share Directory" on page 58.

**5** Add the Siebel Service user as a local administrator on the computer.

**6** Configure DCOM for SSPICNFM and SSPICNEA so that each runs as the Exchange Connector administrator user, for example, *SSSE_Domain_A@Domain_A.com*.

Follow the procedure described in "Configuring Exchange Connector Application DCOM Security" on page 68 to configure the Exchange Connector application DCOM security settings, specifying the following values:

| Component | Privilege | User | Description |
|-----------|-----------|------|-------------|
| SSPICNFM | Access | Siebel Service User *(example: sadmin@Domain_A.com)* | The PIMSI Engine makes RPC calls to SSPICNFM |
| | Launch | Siebel Service User *(example: sadmin@Domain_A.com)* | The PIMSI Engine launches SSPICNFM |
| SSPICNEA | Access | Siebel Service User (e*xample: sadmin@Domain_A.com)*<br><br>Exchange Connector User (e*xample: SSSE_DomainX@Domain_X.com)* | The PIMSI Engine makes RPC calls to SSPICNEA; SSPICNFM makes calls to SSPICNEA |
| | Launch | Exchange Connector User (e*xample: SSPICNEA@Domain_X.com)* | The SSPICNEA process is launched by SSPICNFM |

**7** Using the Internet Options Control Panel, add the corresponding Microsoft Exchange Server as a trusted server.

For additional information on this task, see "Adding Microsoft Exchange Servers to the Local Intranet Zone" on page 73.

## Providing Access to the PIMSI Engine in a Multiple Active Directory Forest Environment

On each Siebel Server that runs the PIMSI Engine component, you must grant default access rights to each of the Exchange Connector SSSE administration users (for example, *SSSE_DomainA@DomainA.com*, *SSSE_DomainB@DomainB.com*). This allows each of the DCOM components to make calls to the PIMSI Engine.

This task is a step in "Process of Configuring SSSE for Multiple Active Directory Forests" on page 91.

To grant default access rights to each of the Exchange Connector SSSE administration users, perform the procedure outlined in "Configuring Access to the PIMSI Engine for the Exchange Connector" on page 72.

## Configuring SSSE for Multiple Active Directory Forest Support

This topic describes the additional steps you must perform to enable SSSE to operate in a multiple AD forest environment.

This task is a step in "Process of Configuring SSSE for Multiple Active Directory Forests" on page 91.

Use the following procedure to configure SSSE for multiple AD forest support.

### To configure SSSE for multiple AD forest support

1  Log in to your Siebel application as an administrator and navigate to Administration - Server Configuration, Enterprises, and then Parameters.

2  In the Enterprise Parameters list, set the parameter, Query External Exchange Domains, to TRUE.

3  Create a new Siebel employee user for each of the SSSE administration users, setting the appropriate email addresses (for example, *SSSE_DomainA@DomainA.com*, *SSSE_DomainB@DomainB.com*).

4  Navigate to Administration - PIM Server Integration, and then Sync Access Control.

5  In the User Map list, add a new PIMSI user map record for each of the SSSE administration users, but do not enable them for synchronization.

6  Navigate to Administration - PIM Server Integration, and then Configuration.

**7** Select the Exchange 2000/2003 Connector profile, then add the following records in the Configuration parameters list. (It is assumed that your environment has three domains, A, B, and C, and that the PIMSI engine resides on a Siebel Server in domain A.)

| Section | Parameter | Value |
|---|---|---|
| Engine Shares | Share01 | Specify the Connector share for Domain *A*.<br><br>*Example: \\SiebelEC_A.Domain_A.COM\PIMSI* |
| Engine Shares | Share02 | Specify the Connector share for Domain *B*<br><br>*Example: \\SiebelEC_B.Domain_B.COM\PIMSI* |
| Engine Shares | Share03 | Specify the Connector share for Domain *C*<br><br>*Example: \\SiebelEC_C.Domain_C.COM\PIMSI* |
| Calendar | UserMailBoxIDSource | EMAILFULL<br><br>When you select EMAILFULL, the entire email address (username@domain.com) is used for WebDAV calls. |
| Connector Application Map | Share01 | Specify the NetBIOS name of the Microsoft Exchange Server for Domain *A*. This instructs the server associated with Share01 (*SiebelEC_A*) to only work with Exchange Server *EXCHANGE_A*.<br><br>*Example: EXCHANGE_A* |
| Connector Application Map | Share02 | Specify the NetBIOS name of the Microsoft Exchange Server for Domain *B*; instructs the server associated with Share02 (*SiebelEC_B*) to only work with Exchange Server *EXCHANGE_B*<br><br>*Example: EXCHANGE_B* |
| Connector Application Map | Share03 | Specify the NetBIOS name of the Microsoft Exchange Server for Domain *C*; instructs the server associated with Share03 (*SiebelEC_C*) to only work with Exchange Server *EXCHANGE_C*<br><br>*Example: EXCHANGE_C* |
| Preferred Global Catalog Servers | Global Catalog Server1 | Specify the Global Catalog server for Domain_*A*<br><br>If there is a global catalog that encompasses all domains, this record is unnecessary. |

| Section | Parameter | Value |
|---|---|---|
| Preferred Global Catalog Servers | Global Catalog Server2 | Specify the Global Catalog server for Domain_*B* |
| | | If there is a global catalog that encompasses all domains, this record is unnecessary. |
| Preferred Global Catalog Servers | Global Catalog Server3 | Specify the Global Catalog server for Domain_*C* |
| | | If there is a global catalog that encompasses all domains, this record is unnecessary. |

# Setting Exchange Connector Log Levels

Log files for the Siebel Exchange Connector are located in the *SIEBEL_ROOT*\siebsrvr\log directory on each computer where the sspicnea.exe application runs. The Exchange Connector log files have names with the format PIMSIExchConnApp_*processID*.log. These log files contain Exchange Connector messages regarding the synchronization of users with Microsoft Exchange.

By default, the Siebel Exchange Connector applications log messages at log level 2. The following procedure describes how to increase or decrease the log level for the application. This task is an optional step in .

### *To increase or decrease the log level of a Siebel Exchange Connector application*

1 On each computer where the Siebel Exchange Connector application (sspicnea.exe) runs, right-click My Computer and choose Properties.

2 Click the Advanced tab.

3 Click Environment Variables.

4 In the System Variables area of the dialog box, click New.

5 In the Variable Name field of the New System Variable dialog box, enter SIEBEL_LOG_EVENTS.

6 In the Variable Value field, enter PIMSIEngSvc=*n*, where *n* is a value from 1 through 5 and where 1 logs the least information and 5 logs the most information. Click OK twice.

7 Restart all of your PIMSI Engine components.

Any change in the log level requires that the application be restarted. The Siebel Exchange Connector application automatically restarts when you restart PIMSI Engines.

# Enabling and Disabling Components on SSSE Servers

As with all Siebel Servers, you can selectively enable and disable server components and component groups on the PIMSI Engine and PIMSI Dispatcher computers.

This task is a step in .

For proper operation of SSSE, use the following guidelines for enabling and disabling server components and component groups:

■ Enable the PIMSI component group on the Enterprise.

■ Enable the PIMSI Engine (pimsieng) component on the Enterprise and on one or more individual Siebel Server computers.

■ Enable the PIMSI Dispatcher (pimsidispatcher) component on the Enterprise and on just one Siebel Server computer.

For more information on enabling and disabling server components and component groups, see *Siebel System Administration Guide*.

# Restarting Siebel Services

You must restart the Siebel Servers and Siebel Gateway Name Server for configuration changes to take effect. For information about restarting Siebel Servers, see *Siebel System Administration Guide*.

This task is a step in the process of .

# Configuring and Starting PIMSI Dispatcher

PIMSI Dispatcher runs as a job on a Siebel Server computer. This topic describes how to create and run the PIMSI Dispatcher job and how to configure PIMSI Dispatcher by creating PIMSI Dispatcher user groups. This topic also describes the parameters that affect PIMSI Dispatcher behavior when the PIMSI Engine components stop working and the PIMSI Dispatcher enters recovery mode.

### About PIMSI Dispatcher Recovery Mode Parameters

PIMSI Dispatcher runs for a certain amount of time for each dispatching cycle. The amount of execution time is dependent upon your current configuration, for example, the number of active users and the computer configuration.

If PIMSI Engine components stop working, the PIMSI Dispatcher enters recovery mode. In recovery mode, the PIMSI Dispatcher sends a number of requests to the PIMSI Engines to respond. The number of requests that are made is determined by the value of the NotificationFrequency parameter. If the Engines fail to reply after the specified number of response requests are issued, the PIMSI Dispatcher attempts to remove old PIMSI Engine job requests from the server request queue so that synchronization can resume.

When PIMSI Dispatcher enters recovery mode, you can determine how much additional time the PIMSI Dispatcher requires to complete its run by multiplying the value specified for the NotificationFrequency parameter by the value specified for the ReconciliationDuration parameter. The ReconciliationDuration parameter determines how many seconds the PIMSI Dispatcher waits after signalling a PIMSI Engine.

For additional information on the NotificationFrequency and ReconciliationDuration parameters, and on the other parameters that influence PISSI Dispatcher operation, see "Tuning SSSE Siebel Profile Parameters" on page 77.

For information on creating and running the PIMSI Dispatcher job, see "Creating the PIMSI Dispatcher Job" on page 98.

For information on configuring PIMSI Dispatcher user groups, see "Creating PIMSI Dispatcher User Groups" on page 99.

# Creating the PIMSI Dispatcher Job

The following procedure describes how to create the PIMSI Dispatcher job, tune the job's parameters, and start the job. This task is a step in "Process of Configuring SSSE" on page 56.

For information on creating the PIMSI Dispatcher job if you implement PIMSI Dispatcher user groups, see "Creating PIMSI Dispatcher User Groups" on page 99.

### *To create the PIMSI Dispatcher job and tune its parameters*

1 Log in to your Siebel application as an administrator and navigate to Administration - Server Management, and then Jobs.

2 In the Jobs List or the Jobs Detail form, click New.

3 Complete the fields as described in the following table.

   For more information about starting jobs, see *Siebel System Administration Guide*.

| Field | Comment |
|---|---|
| Component/Job | Specify PIMSI Dispatcher. |
| Mode | Specify Asynchronous. |
| Requested Server | Specify the computer where you installed the Siebel Server software for PIMSI Dispatcher. |
| Repeating? | Select the check box. |
| Repeat Unit | The suggested value is Minutes. |
| Repeat Interval | The value you set for this field varies according to your business requirements. It is recommended that you set the Repeat Interval value as high as possible to minimize the performance impact of running the PIMSI Dispatcher job.<br><br>**CAUTION:** Setting a Repeat Interval less than five minutes can cause SSSE to miss some Siebel updates, causing incomplete synchronization and possibly decreasing performance throughout the Enterprise. |
| Repeat From | Set the value of this field to End. |
| Repetitions | Accept the default value for this field (0). |

**4** Save the record and click Submit Job to begin the initial extract.

Ongoing extracts follow automatically, separated by the repetition interval.

# Creating PIMSI Dispatcher User Groups

During each synchronization cycle, the PIMSI Dispatcher by default sends synchronization task requests to the PIMSI engine for all users who have synchronization enabled. However, you can optionally filter the users for whom synchronization task requests are issued during each cycle by defining PIMSI Dispatcher user groups, and specifying different synchronization schedules for each group.

For example, if you create PIMSI Dispatcher user groups for different geographic regions, such as EMEA and the United States, you can specify different synchronization schedules for each group; instead of all users being synchronized during each cycle, each user group can be configured to synchronize more frequently during their hours of business than during the evenings.

The procedures in this topic describe how to:

■ Perform Siebel Tools configuration to allow the use of PIMSI Dispatcher user groups in SSSE

■ Configure the PIMSI Dispatcher user groups

The following procedure outlines the Siebel Tools configuration you must perform if you want to use PIMSI Dispatcher user groups.

### *To configure PIMSI Dispatcher user groups in Siebel Tools*

**1** In Siebel Tools, create a new column in the S_SD_USERMAP table using the following values:

| Table | Column | Type | Length |
|---|---|---|---|
| S_SD_USERMAP | SEBL_USER_GRP_CD | Varchar | 30 |

**2** Add a single value field to the PIMSI User Map business component (PIM Server Integration project, S_SD_USERMAP table) using the following values:

| Field Name | Column | Picklist | TYPE |
|---|---|---|---|
| PIM Dispatcher Group | SEBL_USER_GRP_CD | PIMSI Dispatcher Group | DTYPE_TEXT |

**3** Create a new pick map using the following values:

| Field Name | PickList Field |
|---|---|
| PIM Dispatcher Group | Value |

**4**  Create a new pick list using the following values:

| Name | Business Component | Bounded | LOV_TYPE | Static |
|------|------|------|------|------|
| PIMSI Dispatcher Group PickList | PickList Generic | yes | PIMSI_DISPATCHER_GROUP | Yes |

**5**  Add a column to the PIMSI User Map list applet (PIM Server Integration project, PIMSI User Map business component) using the following values:

| Name | Symbolic String | Field | Runtime |
|------|------|------|------|
| Dispatcher Group | SBL_PIMSI_DISPATCHER_GROUP | PIM Dispatcher Group | Yes |

**6**  Create a symbolic string using the following values:

| Name | String | Definition |
|------|------|------|
| SBL_PIMSI_DISPATCHER_GROUP | Dispatcher Group | Dispatcher Group |

For information on using Siebel Tools to configure columns and tables, see *Configuring Siebel Business Applications*.

Use the following procedure to create PIMSI Dispatcher user groups, assign users to a group, and create the PIMSI Dispatcher job for the user group.

### To configure PIMSI Dispatcher user groups

**1**  Define a new PIMSI Dispatcher user group as follows:

   **a**  Navigate to Administration – Data, and then List of Values.

   **b**  Create a new record, specifying values similar to the following:

| Type | Display Value | Language Independent Code | Language Name |
|------|------|------|------|
| PIMSI_DISPATCHER _GROUP | The display name of the PIMSI Dispatcher user group, for example, *Sync Group EMEA* | The name of the PIMSI Dispatcher user group, for example, *Sync Group EMEA* | Specify the language, for example, English-American |

**2**  Assign users to the PIMSI Dispatcher group you defined in as follows:

   **a**  Navigate to Administration – PIM Server Integration, Sync Access Control, and then User Map.

**b** Select the user you want to associate with a PIMSI Dispatcher group.

**c** In the Dispatcher Group field, select the PIMSI Dispatcher user group to associate with the user.

**d** Save the User Map record.

**3** Create a job template for the new PIMSI Dispatcher user group as follows:

**a** Navigate to Administration - Server Configuration, and then Job Templates.

**b** Create a new job template, specifying values similar to the following:

| Name | Component | Component Type |
|------|-----------|----------------|
| The name of the job template, for example, *Sync Group EMEA* | PIMSI Dispatcher | BusSvcMgr |

**c** In the Job Parameters list, add a job parameter to the job template, specifying values similar to the following:

| Name | Value |
|------|-------|
| Encoded Input Arguments | DispatcherGroup:*value* <br><br> where *value* is the name of the PIMSI Dispatcher user group you are defining. <br><br> For example, for the *Sync Group EMEA* user group, specify the following for the Value field: <br><br> DispatcherGroup:Sync Group EMEA |

**4** Create a new PIMSI job using the job template you created in Step 3 on page 101 as follows:

**a** Navigate to Administration - Server Management, and then Jobs.

**b** In the Jobs list, click New.

**c** In the Component/Job field, select the name of the job template you created in Step 3 on page 101, for example, *Sync Group EMEA*.

**d** In the Jobs list or Job Detail view, complete other fields as appropriate. For information on these fields, see "Creating the PIMSI Dispatcher Job" on page 98.

**5** Save the record and click Submit Job to start the initial extract.

# Configuring Support for Items Archived in Microsoft Outlook

SSSE does not distinguish between items in Microsoft Outlook that are archived and items that are deleted from the Microsoft Exchange message store. If an item is archived from Microsoft Outlook, SSSE interprets this as a deletion of the item and deletes the corresponding record in the Siebel application. However, you can choose to maintain Siebel records for calendar or to do records that have been removed from the user's Microsoft Exchange message store due to archiving by specifying a value, in days, for the ArchiveGracePeriod parameter.

This task is an optional step in .

When you specify a value for the ArchiveGracePeriod parameter, SSSE determines whether an activity or appointment that no longer exists in Microsoft Outlook has been deleted or archived as follows:

- If a deleted Microsoft Outlook event has an end date further in the past than the number of days specified by the ArchiveGracePeriod parameter, then the item is assumed to be archived and the corresponding record is not deleted from the Siebel database.

- If a deleted Microsoft Outlook event has an end date more recent than the number of days specified by the ArchiveGracePeriod parameter, then the item is assumed to be deleted and the corresponding record is deleted from the Siebel database.

For example, if you specify a value of 7 for the ArchiveGracePeriod parameter, SSSE treats a meeting that is older than 7 days, and that no longer exists in Microsoft Outlook, as an archived item. If the meeting was scheduled to occur less than 7 days ago, it is treated as an item that was intentionally deleted (for example, because the meeting was cancelled) and is removed from the Siebel application.

If you do not specify a value for the ArchiveGracePeriod parameter, all items archived from a user's Microsoft Exchange message store are treated as deleted items.

The following procedure describes how to specify a value for the ArchiveGracePeriod parameter.

### To enable support for archived items

1  Log in to your Siebel application as an administrator and navigate to Administration - PIM Server Integration, and then Configuration.

2  Select the Exchange Calendar profile.

3  In the Configuration Parameters list, create a record with the following values:

| Section | Parameter | Value |
|---------|-----------|-------|
| Archive | ArchiveGracePeriod | $n$<br><br>where $n$ is the number of days you want to specify for the archive grace period. The default value is 0. |

# Configuring Recurring Appointments

This topic describes how to configure Siebel values for Microsoft Outlook recurring appointments.

This task is an optional step in "Process of Configuring SSSE" on page 56.

Siebel Business Applications do not support the same appointment recurrence options as Microsoft Outlook Exchange, for example, Siebel Business Applications do not support a meeting repeat frequency of twice a month. If you select an appointment recurrence option in Microsoft Outlook that is not supported by the Siebel application, when the appointment is synchronized, SSSE represents the Microsoft Outlook recurrence pattern by creating individual appointments in the Siebel application to represent individual instances of the recurring appointment; this process is known as *fanning* the appointments.

The number of individual appointments that is created in the Siebel application is determined by the value of the Max Recurring Instances setting for the Siebel Calendar domain. Once the number of appointments specified by this setting had been created, SSSE does not create any further occurrences for that meeting. You can, however, configure SSSE so that additional records are generated for the recurring appointment at regular intervals provided the appointment continues to recur in Microsoft Outlook Exchange.

For additional information on configuring values for recurring appointments, see the following topics:

■ "Configuring Appointment Instances for Recurring Appointments" on page 103

■ "Configuring Additional Appointment Instances for Recurring Appointments" on page 104

## Configuring Appointment Instances for Recurring Appointments

This topic describes how to configure the number of individual appointments that are created in the Siebel application for Microsoft Outlook appointments that have a recurrence pattern that is not supported in the Siebel application.

For additional information about recurring appointments, see "Configuring Recurring Appointments" on page 103.

To configure the number of appointment instances created in the Siebel application for recurring Microsoft Outlook appointments, specify a value for the Max Recurring Instances setting for the Siebel Calendar domain, as described in the following procedure.

### *To set appointment recurrence values*

1   Navigate to Administration - PIM Server Integration, and then Siebel Domains.

2   In the Siebel Domains list, select Siebel Calendar, then scroll to the right until the Max Recurring Instances field is displayed.

**3** Set the Max Recurring Instances field to the value required.

The number you specify for this field determines the maximum number of individual appointments that are created in the Siebel application for each Microsoft Outlook appointment with an unsupported recurrence value that is synchronized with the Siebel application.

**Related Topic**

# Configuring Additional Appointment Instances for Recurring Appointments

This topic describes how to configure SSSE so that additional records are generated in the Siebel application during the synchronization process for Microsoft Outlook appointments that:

■ Have a recurrence pattern that is not supported in the Siebel application

■ Continue to recur in Microsoft Outlook after the value of the Max Recurring Instances setting is reached

For additional information on the Max Recurring Instances setting, see "Configuring Appointment Instances for Recurring Appointments" on page 103.

To configure additional appointment instances for recurring appointments, you must perform the following tasks:

**1** "Creating and Running the Refan Job" on page 104

**2** "Making Repository Changes" on page 105

**3** "Updating the Siebel Calendar Profile" on page 106

**4** "Creating a New PIMSI Data Map Entry" on page 107

**NOTE:** For existing implementations, when you configure SSSE so that additional appointment instances are created after the value of the Max Recurring Instances setting is reached, the change is only implemented for new recurring appointments, or updates in Microsoft Outlook Exchange.

## Creating and Running the Refan Job

This topic describes how to create the refan job for the PIMSI Dispatcher. The refan job ensures that records are created for appointments with unsupported recurrence patterns beyond the initial number of instances specified by the Max Recurring Instances setting.

### To create and run the refan job

**1** Navigate to Administration - Server Configuration, and then Job Templates.

**2** Create a new Job Template using the values in the following table.

| Set Name | Short Name | Component | Component Type | Business Service | Enabled? |
|---|---|---|---|---|---|
| Refan | Refan | PIMSI Dispatcher | BusSvcMgr | TRUE | TRUE |

**3** In the Job Parameters applet, create a parameter for the job template using the values shown in the following table.

| Name | Abbreviation | Value |
|---|---|---|
| Encoded Input Arguments | EncodedArgs | Refan |

**4** Run the job as follows:

**a** Navigate to Administration - Server Management, and then Jobs.

**b** Click New, then select Refan in the Component/Job field.

**c** Click Submit Job.

Do not run the Refan job when the PIMSI Dispatcher job is running. If both jobs run at the same time, synchronization conflicts can occur, causing errors.

## Making Repository Changes

To implement additional instances of recurring appointments, you must create a new column, X_CAL_REPEAT_PATTERN, in the S_SD_PIM_ROW table, then add a new field, Cal Repeat Pattern, to the PIMSI PIM Row business component. The following procedure describes both tasks.

For information on using Siebel Tools to configure columns and tables, see *Configuring Siebel Business Applications*.

*To add a new column to the S_SD_PIM_ROW table and configure the PIMSI PIM Row business component*

**1** Start Siebel Tools.

**2** Check out the project that contains the S_SD_PIM_ROW table.

For information on how to check out projects, see *Using Siebel Tools*.

**3** In the Object Explorer, expand the Table object type.

**4** In the Object List Editor, select the S_SD_PIM_ROW table.

**5** In the Object Explorer, select the Column object type.

**6** In the Object List Editor, create a new column, specifying the values shown in the following table.

| Field | Value |
|---|---|
| Name | X_CAL_REPEAT_PATTERN |
| Changed | True |
| User Name | Cal Repeat Pattern Ext |
| Type | Extension |
| Nullable | True |
| Physical Type | Varchar |
| Length | 500 |
| Cascade Clear | Ignore |
| Transaction Log Code | True |
| Status | Active |

**7** Apply the changes you made to the S_SD_PIM_ROW table to the local database.

**8** In the Object Explorer, expand the Business Component object.

**9** In the Object List Editor, select the PIMSI PIM Row business component.

**10** In the Object Explorer, expand the Field object type.

**11** In the Object List Editor, create a new field, specifying the values shown in the following table.

| Field | Value |
|---|---|
| Name | Cal Repeat Pattern |
| Column | X_CAL_REPEAT_PATTERN |

**12** Check in the project.

**13** Apply the changes to the server database.

**14** Compile and test the project, then deploy the SRF.

## Updating the Siebel Calendar Profile

This topic describes how to update the Siebel Calendar profile to allow additional appointment instances to be created for recurring appointments after the number of instances specified by the Max Recurring Instances setting has been reached.

### *To update the Siebel Calendar Profile*

**1** Navigate to Administration - PIM Server Integration, and then Configuration.

**2** Select the Siebel Calendar profile.

**3** In the Configuration Parameters applet, create two records using the values shown in the following table.

| Section | Parameter | Value |
|---------|-----------|-------|
| SupportedFan | MultipleEntry | Either 1 or 0. |
| | | If you specify 1, multiple entries are created in the Siebel application for recurring appointments that have a supported recurrence pattern. This allows you to track individual meeting data, instead of sharing the data across all meetings. |
| | | If you specify 0, the number of entries that are created for appointments with unsupported recurrence patterns is determined by the value of the Max Recurring Instances setting. For information on the Max Recurring Instances parameter, see "Configuring Appointment Instances for Recurring Appointments" on page 103. |
| FanLimit | DaysinNumber | *n* days |
| | | A recurring appointment end-date value is calculated based on the number you specify for this parameter. |
| | | For example, if the recurring appointment start date is March 10, 2008 and the DaysinNumber value is 20, additional records are initially generated for the appointment through March 30, 2008. If the refan job you created (see "Creating and Running the Refan Job" on page 104) is scheduled to run on March 17, 2008, additional appointments are generated through April 6, 2008 (20 days after the refan job runs on March 17, 2008). |

## Creating a New PIMSI Data Map Entry

This topic describes how to create a new entry in the PIMSI data map for the refan job you created. Use the following procedure to update the PIMSI data map.

### To update the PIMSI data map

**1** Navigate to Administration - Integration, Data Map Editor.

**2** In the Integration Map Object list, select the PIMSI Calendar Outbound Map, right-click, and select Copy Record.

**3** Name the new record PIMSI Calendar Outbound Refan Map.

**4** Select the PIMSI Calendar Outbound Refan Map.

**5** In the Integration Component Map applet, select Action_CalendarAppointment, and change the value of the Precondition field so that it is empty.

**Related Topic**

# 6 Administering Siebel Server Sync

This chapter provides information about administering SSSE. It includes the following topics:

## About Administering SSSE

This chapter provides information about the following aspects of administering SSSE:

- Setting Siebel and PIM domain properties
- Mapping Siebel and PIM domain fields to each other
- Mapping Siebel users and PIM users to each other
- Setting access levels
- Setting initial Extract start dates for users
- Maintaining files
- Using logs
- Moving or deleting Microsoft Exchange mailboxes of SSSE users

Many settings related to domains and mappings are preconfigured in SSSE; you do not have to perform some tasks unless you want to change the default settings. However, you must set user access permissions. All tasks in this chapter are performed from the Administration - PIM Server Integration screen of the Siebel application.

# About SSSE Domains

This topic describes the Siebel and PIM domains supported by SSSE. The mapping of a Siebel domain to a PIM domain (such as a Microsoft Exchange Server domain) allows SSSE to synchronize data in these two domains. The supported SSSE domain maps specify how each Siebel and PIM field in a domain is mapped.

Table 21 shows the SSSE supported Siebel domains, PIM domains, and domain maps. The Siebel domains synchronize Siebel data with Microsoft Exchange Server data. The PIM domains synchronize Microsoft Exchange data with the Siebel database. The current version of SSSE does not support the creation of new Siebel domains.

**CAUTION:** PIMSI Engine functions correctly using only the PIM and Siebel domains listed in Table 21. Do not change the values of the Name or EAI Integration Object fields for the provided Siebel domains or the Name or Domain Identifier of the provided PIM domains. Additionally, you must not change the name of the domain maps or the default mapping of PIM and Siebel domains.

Table 21.  Default Mapping of Siebel and PIM Domains

| Domain Map Name | Siebel Domain Name | PIM Domain Name |
|---|---|---|
| Siebel-Exchange Business Contact Map | Siebel Business Contact | Exchange Contact |
| Siebel-Exchange Calendar Map | Siebel Calendar | Exchange Calendar |
| Siebel-Exchange Employee Map | Siebel Employee | Exchange Contact |
| Siebel-Exchange Personal Contact Map | Siebel Personal Contact | Exchange Contact |
| Siebel-Exchange Task Map | Siebel To Do | Exchange Task |

## About Resolving Synchronization Conflicts

If data in the Siebel application and Microsoft Exchange Server has been modified in such a way that SSSE cannot synchronize the differences, the current version of SSSE always resolves the conflict by using the data from the Siebel application.

An example of a synchronization conflict is where the status of a Microsoft Exchange task is set to a value that differs from the value of the corresponding Siebel to do item. If the status is updated at approximately the same time, thereby falling within the same synchronization cycle, SSSE has no way to determine which update has to be applied, and automatically uses the data from the Siebel application.

# Process of Configuring Siebel and PIM Domain Characteristics

You must set certain characteristics for the Siebel and PIM domains defined for SSSE, for example, you must set the synchronization level for the domain and designate required fields.

To configure the Siebel and PIM domains, perform the following tasks:

**1** "Setting Siebel Domain-Level Synchronization" on page 111

**2** "Setting PIM Category Values for Siebel Domains" on page 112

**3** "Enabling and Disabling Contact Record Matching" on page 113

**4** "Setting Required Siebel Domain Fields and Defaults" on page 114

**5** "Setting Required PIM Domain Fields and Defaults" on page 114

After the characteristics of Siebel domains and PIM domains are established, you can map domain fields and set field-level synchronization. For information on theses tasks, see "Mapping Siebel Domain and PIM Domain Fields" on page 115.

## Setting Siebel Domain-Level Synchronization

Domain-level synchronization establishes the highest allowable synchronization setting for all users and groups on the domain. You must set user-level and group-level synchronization to values that are equal to or lower than the domain-level synchronization.

This task is a step in "Process of Configuring Siebel and PIM Domain Characteristics" on page 111.

The following procedure describes how to set domain synchronization.

### To set domain synchronization

**1** Navigate to Administration - PIM Server Integration, and then Siebel Domains.

**2** In the Siebel Domains list, select a record.

**3** In the Domain Sync Support field, select a synchronization level for the domain.

Table 4 on page 19 describes the synchronization levels available for Siebel domains, and Table 5 on page 19 lists the default synchronization levels for each domain.

**NOTE:** Do not choose Full Sync for the Employee domain, where the maximum supported level of synchronization is Export Only. Choosing Full Sync for the Employee domain will result in data corruption.

**4** Repeat Step 2 and Step 3 for each Siebel domain.

## About the Limitation Against Import Only Synchronization Level

You can configure SSSE so that when the Full Sync option is implemented for the Siebel Calendar domain, only one-way synchronization of calendar records, from Microsoft Exchange to the Siebel application, occurs. For information on configuring import-only synchronization for calendar items, see "Implementing Import-Only Synchronization of Calendar Records" on page 124.

The Import Only synchronization level is not supported for any of the other Siebel domains. The reason for this limitation is that there are potential data integrity problems if data is imported only from Microsoft Exchange to your Siebel application.

This hazard to data integrity arises from the different methods the two systems use to store data. Siebel Business Applications use a relational database, but Exchange Servers maintain data using an individual data store for each Microsoft Exchange user.

As an example of the kind of issue that could arise, a business contact record in a Siebel application can be shared between multiple people in a team. Any update that one user makes to the business contact record in the Siebel application is immediately visible to other users, because all users are accessing a single record in the relational database. However, in Microsoft Exchange, each user has his or her own set of contact records. An update made to one user's contact record is not reflected in other users' contact information. If data was only imported from Microsoft Exchange into your Siebel application, an update made by one user could be lost when another user makes a conflicting update. The following paragraphs describe in more detail how an example business contact record would be handled for different synchronization levels:

■ When the synchronization level is set to Full Sync, then if someone changes synchronized data in either the Siebel application or Microsoft Exchange, that change is reflected for other users in both the Siebel application and Microsoft Exchange. For example, one member of a sales team might learn that a business contact's phone number had changed. All members of the team would soon see the new phone number in both the Siebel application and Microsoft Exchange, regardless of where the change was made. Within a short period of time after a data change occurs, all users are working from the same updated data.

■ When the synchronization level is set to Export Only, then a data change made in the Siebel application is reflected for other users in both Siebel and Microsoft Exchange, but changes made in Microsoft Exchange are visible only to the user who made the change, until such time as a later data change in the Siebel application overwrites the data in Exchange. So, a business contact phone number changed in the Siebel application would be visible to all team members, in both the Siebel application and Microsoft Exchange. However, a phone number changed in Exchange would be visible only to the team member who changed it, and only until the next synchronization overwrites it with the value from the Siebel database. Again, within a short period of time after a data change occurs, all users are working from the same updated data.

## Setting PIM Category Values for Siebel Domains

For each Siebel domain, you can specify a value that a Microsoft Exchange record's Category field value must match, in order for SSSE to synchronize the record.

This task is a step in "Process of Configuring Siebel and PIM Domain Characteristics" on page 111.

**NOTE:** If your Siebel implementation uses more than one language, a user can specify a Category value for a Microsoft Exchange record in the user's usual working language. For a record that originates in the Siebel application, SSSE assigns a Category value to the corresponding Microsoft Exchange record using the language that the administrator configured for the user in the user map. For information about this language setting, see "Mapping Individual Users" on page 122.

The following procedure describes how to set the PIM Category Value for a domain.

### *To set the PIM Category Value for a domain*

1   Navigate to Administration - PIM Server Integration, and then Siebel Domains.

2   In the Siebel Domains list, select a record.

3   In the PIM Category Value field, enter the value you want to match against the Category field in Microsoft Exchange records.

4   Repeat Step 2 and Step 3 for additional domains, as required.

## Enabling and Disabling Contact Record Matching

This topic describes how to configure the IgnoreContactMatching parameter, which allows you to enable or disable contact record matching during the SSSE synchronization process.

Setting the IgnoreContactMatching parameter to FALSE (the default value) enables contact record matching. When contact matching is enabled, SSSE attempts to match a contact record that is being synchronized with existing contact records, and only creates a new contact record if a match is not found.

Setting the IgnoreContactMatching parameter to TRUE disables contact record matching. When contact matching is disabled, SSSE does not check if an existing record matches the synchronized contact record; instead, a new contact record is always created. Disabling contact record matching optimizes the performance of the synchronization process but can result in duplicate contact records being created, which must be resolved manually.

For additional information on the IgnoreContactMatching parameter, see "About the IgnoreContactMatching Parameter" on page 25.

The following procedure describes how to enable or disable contact record matching.

### *To enable or disable contact record matching*

1   Log in to your Siebel application as an administrator and navigate to Administration - PIM Server Integration, and then Configuration.

2   Select the Siebel profile.

**3**   In the Configuration Parameters list, create a record with the following values:

| Section | Parameter | Value |
|---------|-----------|-------|
| Siebel | IgnoreContactMatching | TRUE or FALSE |

# Setting Required Siebel Domain Fields and Defaults

You can set which Siebel domain fields require a value, and must specify a default value for each
required field.

When a user creates a new contact, appointment, employee, or to do record in the Siebel application,
the application cannot save the record until all required fields have a value. Similarly, if a user
creates a new Microsoft Exchange contact or task record, SSSE synchronizes the record only if either
the administrator has specified a default value to use when the field is empty, or if the Microsoft
Exchange record includes values to synchronize with all Siebel fields that require them.

This task is a step in "Process of Configuring Siebel and PIM Domain Characteristics" on page 111.

The following procedure describes how to specify that a field requires a value, and how to provide a
default value for that field.

### To set required Siebel domain fields and defaults

**1**   Navigate to Administration - PIM Server Integration, and then Siebel Domains.

**2**   In the Siebel Domains list, select the domain for which you want to set required fields.

**3**   In the Siebel Domain Fields list, select the field you want to make required.

**4**   Select the Required check box.

   **NOTE:** If Required field is not visible, to make it visible click Menu and choose Columns
   Displayed.

**5**   In the Default Value field, enter the value you want to use as the default value.

# Setting Required PIM Domain Fields and Defaults

You can set which PIM domain fields require a value, and must specify a default value for each
required field.

When the user creates a new contact, appointment, employee, or to do record in the Siebel
application, SSSE synchronizes the record with the Exchange Server only if either the administrator
has specified a default value to use when the field is empty, or if the Siebel record includes values
to synchronize with all Microsoft Exchange fields that require them.

**NOTE:** In any individual Microsoft Exchange record, the user can change the value of the field from
the default value to another value, but only an administrator can choose a different value to be
assigned as a default.

This task is a step in *"Process of Configuring Siebel and PIM Domain Characteristics" on page 111*.

The following procedure describes how to specify that a PIM field requires a value, and how to provide a default value for that field.

### *To set required PIM domain fields and defaults*

**1** Navigate to Administration - PIM Server Integration, and then PIM Domains.

**2** In the PIM Domains list, select the domain for which you want to set required fields.

**3** In the PIM Domain Fields list, select the field you want to make required.

**4** Select the Required check box.

   **NOTE:** If Required field is not visible, to make it visible click Menu and choose Columns Displayed.

**5** In the Default Value field, enter the value you want to use as the default value.

   If the Default Value field contains the value Not Set, then the user must enter a string value; no default value is established.

# Mapping Siebel Domain and PIM Domain Fields

The mapping of PIM domains and Siebel domains is preestablished in SSSE and must not be modified. You can, however, configure the mapping of domain fields, set the synchronization level for each mapped field, and specify Key Fields, which are used to determine if records in PIM and the Siebel application are the same record. For information on these tasks, see the following topics:

■ *"Creating Field Mappings" on page 115*

■ *"Setting Field-Level Synchronization" on page 116*

■ *"Setting Key Fields" on page 117*

## Creating Field Mappings

Administrators can map individual fields between the Siebel and PIM domains. This mapping determines the fields in the Siebel application and Microsoft Exchange Server that are mapped to each other.

Administrators can turn synchronization on or off for each individual mapped field.

**NOTE:** In SSSE, some editable Exchange fields are mapped to Siebel pick list fields. If data for these fields is entered in Microsoft, typographical errors and case mismatches can cause synchronization problems. To minimize this possibility, you can set the Siebel pick list fields to be case insensitive. For information about enabling field-specific case insensitivity, see *Applications Administration Guide*.

The following procedure describes how to create a field mapping.

### To create a new field mapping

**1** Navigate to Administration - PIM Server Integration, and then Domain Map.

**2** In the Domain Map list, select a record.

**3** In the Field Map list, click New, and then fill in the fields for the new record using the following values.

| Field | Description |
|---|---|
| Siebel Field | Select a Siebel field. |
| PIM Field | Select a PIM field. |
| LOV Translation Map | Select an appropriate List of Values (LOV) translation map. |
| Key Field | Select this check box if you want this field to be a key field. See "Setting Key Fields" on page 117. |
| Sync Enabled | Select this check box if you want this field synchronized. For more information about synchronizing specific fields, see "Setting Field-Level Synchronization" on page 116. |

**Related Topics**

"Mapping Siebel Domain and PIM Domain Fields" on page 115

"Setting Field-Level Synchronization" on page 116

"Setting Key Fields" on page 117

# Setting Field-Level Synchronization

You can turn synchronization on or off for each individual mapped field by following the procedure in this topic. You do not have to unmap fields to disable synchronization.

### To enable or disable field synchronization

**1** Navigate to Administration - PIM Server Integration, and then Domain Map.

**2** In the Domain Map list, select a record.

**3** In the Field Map list, select a record.

**4** Select the Sync Enabled check box if you want synchronization enabled for this field. Clear the check box if you want synchronization disabled.

**Related Topics**

"Mapping Siebel Domain and PIM Domain Fields" on page 115

"Creating Field Mappings" on page 115

"Setting Key Fields" on page 117

## Setting Key Fields

The first time SSSE synchronizes a particular record, SSSE uses Key fields to determine if a calendar, employee, or to do record in the Siebel application is the same record as a record in Microsoft Exchange Server. If the values in all key fields of a record match, then SSSE assumes that the record is the same record, and SSSE synchronizes the record between the Siebel application and Microsoft Exchange. If all key fields do not match, then SSSE assumes the record is a unique record.

SSSE does not use key fields to determine whether or not contact records match. For information on how SSSE matches contact records, see "About SSSE Contact Record Matching" on page 25.

The following procedure describes how to set key fields.

### *To set key fields*

**1** Navigate to Administration - PIM Server Integration, and then Domain Map.

**2** In the Domain Map list, select a record.

**3** In the Field Map list, select a record.

**4** Select the Key Field check box.

**Related Topics**

# Process of Setting SSSE Group and User Access Controls

To allow users to synchronize between Microsoft Exchange Server and the Siebel application, you must map each PIM user to a Siebel user login, and then enable synchronization for the user. Optionally, you can set a synchronization level for each of a user's Siebel domains (Business Contact, Personal Contact, Employee, or To Do). If you do not set the synchronization level for a user, then SSSE uses the domain synchronization level.

You can also set the synchronization level for a group. A *group* is any Organization, Position, or User List defined in the Siebel application.

To set SSSE group and user access controls, perform the following tasks:

**1** (Optional)

**2**

**3**

**4**

**5**

# Setting User-Level Synchronization

User-level synchronization allows you to set the synchronization level separately for each of a user's Siebel domains except Calendar (Business Contact, Personal Contact, Employee, or To Do). You can also use user-level synchronization to give a particular user a different synchronization level from other users.

You cannot set user-level synchronization higher than domain-level synchronization. For example, the user cannot have Full Sync privileges if the overall domain is limited to Export Only. If the domain-level synchronization is set to None, then no users or groups are able to synchronize on that domain.

No user-level synchronization control is available for the Calendar domain. The administrator sets calendar synchronization at the domain level.

This task is a step in "Process of Setting SSSE Group and User Access Controls" on page 117.

In addition to setting each user's synchronization level, you must enable each user's synchronization or SSSE cannot synchronize records for that user. For more information about enabling synchronization, see "Enabling or Disabling User Synchronization" on page 123.

The following procedure describes how to set user-level synchronization.

### *To set user-level synchronization*

1  Navigate to Administration - PIM Server Integration, Sync Access Control, and then User Level Access Control.

2  In the User Level Access Control list, select a record for a particular user.

3  In the User-Level Access Control list (lower list), click New, and then fill in the fields as shown in the following table.

| Field | Description |
|---|---|
| Siebel Domain Name | Select Siebel Business Contact, Siebel Employee, Siebel Personal Contact, or Siebel To Do. |
| Administrator Override | When selected, user-level synchronization is preserved and used for the selected user, even if that user belongs to a group for which an administrator has set a different group synchronization level. Selected by default. It is recommended that you leave this setting as is. For more information about group synchronization levels, see "Setting Group-Level Synchronization" on page 120. |
| Admin Sync Level | Select Full Sync, Export Only, or None. This sets the maximum synchronization level that can be set for this user and domain. |
| Allow User Customization | Leave check box cleared. User customization of the synchronization level is not supported in this release of SSSE. |

| Field | Description |
|---|---|
| Allow MVG Creation | Select the check box (On). |
| Visibility Type | Determines whether the data that the user can synchronize is limited to records visible in specified views. The available values for each domain are as follows:<br><br>■ **Business Contact Domain.** Available Visibility values are All, Sales Rep, or no value (empty). Default value is Sales Rep.<br><br>■ **Employee Domain.** Available Visibility values are All or no value (empty). Default value is All.<br><br>■ **Personal Contact Domain.** Available Visibility values are Personal or no value (empty). Default value is Personal.<br><br>■ **Tasks Domain.** Available Visibility values are Personal or no value (empty). Default value is Personal.<br><br>For information about the meanings of these Visibility values, see Table 22 on page 120. |

**4** Repeat Step 3 on page 118 for each additional domain where you want to specify user-level access for the selected user.

Table 22 on page 120 describes the values you can specify for the Visibility Type field.

Table 22.    Visibility Type Value Descriptions

| Visibility Value | Description |
|---|---|
| All | The user can synchronize any of the data that is visible to them in the selected domain and that is set up for synchronization by the Administrator. This Visibility value is available for the Employees and Business Contact domains. |
| Sales Rep | The user can synchronize data in the selected domain based on his or her position. If the data is associated with the user's position or with a direct report's position, then the data is visible to the user in the Contacts view, and the user can synchronize that data. For example, if the Sales Team field for a contact record lists anyone who has the same position as the user or one of the user's direct reports, then the data in that contact record is visible to the user in the My Contacts view. This Visibility value is available for the Business Contacts domain only. |
| Personal | The user is limited to synchronizing data in the selected Domain that is specifically marked as personal (non-business) data. No other user can view this data, regardless of position. This Visibility value is available for Tasks and Personal Contacts domains. Data to be synchronized must appear in the user's My Activities or My Personal Contacts views, depending on the selected domain, and must have the Private check box selected. Personal visibility is also appropriate for the Calendar domain, where an administrator must set the synchronization level settings at the domain level, rather than the user level.<br><br>**NOTE:** The Personal value cannot be used for the Employees and Business Contacts domains. |
| (Empty field) | If the Visibility Type field is left blank, SSSE uses the default Visibility Type for the selected domain. |

**NOTE:** The Visibility setting described in this topic does not affect which records are visible to the user in the application; it only affects which records can be synchronized.

**Related Topics**

## Setting Group-Level Synchronization

In addition to the ability to set synchronization level by individual user, you can set synchronization level for a group of users. A group is any Organization, Position, or User List defined in the Siebel application.

Group synchronization is a mechanism for setting the user synchronization level for multiple users. After you set synchronization values for the group, SSSE propagates the values to the members of the group, thereby setting the individual user's synchronization values.

Make sure that the user's synchronization is enabled or that user cannot synchronize, regardless of the group synchronization level that is set. For more information about enabling synchronization, see "Enabling or Disabling User Synchronization" on page 123.

**CAUTION:** SSSE applies group-level synchronization settings only to members of the selected group who do not have Administrator Override selected in the User Level Access Control list. For more information about the User Level Access Control list, see "Setting User-Level Synchronization" on page 118.

This task is a step in .

The following procedure describes how to set group-level synchronization.

### To set group-level synchronization

1   Navigate to Administration - PIM Server Integration, Sync Access Control, and then Group Access Control.

2   In the User Group Access Control list, click New, and then fill in the fields as shown in the following table.

| Field | Description |
| --- | --- |
| Party Name | Select the name of a party. |
| Party Type Code | Automatically set to the correct value. |
| Siebel Domain Name | Select Siebel Business Contact, Siebel Employee, Siebel Personal Contact, or Siebel To Do. |
| Admin Sync Level | Select Full Sync, Export Only, or None. This sets the Admin Sync Level for each user in the group. |
| Allow MVG Creation | Select the check box (On). |
| Allow User Customization | Leave check box cleared. User customization of the synchronization level is not supported in this release of SSSE. |
| Status | Is automatically set to Pending, which means that the changes are pending propagation to the users in the group. |

3   Click the Propagate Changes button.

The group settings are propagated to each user who is a member of the group. This overwrites any user settings that might already exist, provided that Administrator Override is not selected for those users. The Status field is cleared, indicating that the changes were successfully propagated.

# Mapping Individual Users

To allow synchronization between the Siebel application and a PIM, you must map each Siebel user to a PIM user, and then enable synchronization for the user as described in the following procedure.

This task is a step in "Process of Setting SSSE Group and User Access Controls" on page 117.

### To map a Siebel user to a PIM user

1   Navigate to Administration - PIM Server Integration, Sync Access Control, and then User Map.

2   In the User Map list, click New, and then fill in the fields as shown in the following table.

| Field | Description |
|---|---|
| Siebel User Login | Enter the user's Siebel application login. |
| PIM User Identifier | Enter the user's Microsoft Exchange Server email address. This entry is in the form *user@company.xxx* (Example: jbrown@somecompany.com). |
| | **NOTE:** This value must also match the email address in the user's Siebel employee record, with the case matching exactly. If necessary, the value can differ in case from the user's Microsoft Exchange email address, but if the match with the Siebel employee record is not exact, calendar synchronization for the user fails. To ensure appropriate synchronization behavior, it is recommended that all Siebel email addresses are lower case. |
| PIM Server Type | Select Exchange 2000. |
| Language | Select a language. |
| Sync Enabled | Select this check box to enable synchronization for this user. |

# Mapping Multiple Users

SSSE provides an automated method for mapping multiple users to allow synchronization between the Siebel application and Microsoft Exchange Server. You can use this method to map all employees in a Siebel deployment, for example. The Map User button finds and maps Siebel user login names to Exchange email addresses. After you map the users, you must enable synchronization for each user.

This task is a step in "Process of Setting SSSE Group and User Access Controls" on page 117.

The following procedure describes how to map multiple users.

### To map multiple users

1   Navigate to Administration - PIM Server Integration, Sync Access Control, and then User Map.

**2**  In the User Map list, click Map User.

The PIM Server Integration User Map dialog box appears.

**3**  Fill in the fields as shown in the following table, and then click Map Users.

| Field | Value |
| --- | --- |
| Business Object Name | Select a business object. (Example: Employee). |
| Business Object Component | Select a business component. (Example: Employee). |
| PIM Login Field Name | Email Addr. |
| Siebel Login Field Name | Login Name. |
| PIM Server Type | Exchange 2000. |
| Default Language | Select a language. (Example: English-American). |

The mapped users appear in the User Map list.

**NOTE:** If there are many users, this process can take some time.

**4**  From the Edit menu, choose Select All.

**5**  From the Edit menu, choose Change Records.

**6**  Under 1st Field to Change, in the field called Field, select Sync Enabled.

**7**  Under 1st Field to Change, in the Value field, type Y, and then click OK.

The Sync Enabled check box is selected for all of the highlighted records.

# Enabling or Disabling User Synchronization

The administrator can enable or disable synchronization for each user individually as described in the following procedure.

This task is a step in <span style="color:blue">"Process of Setting SSSE Group and User Access Controls" on page 117</span>.

### To enable or disable user synchronization

**1**  Navigate to Administration - PIM Server Integration, Sync Access Control, and then User Map.

**2**  In the User Map list, select a record.

**3**  Select the Sync Enabled check box to enable synchronization for this user. Clear the check box to disable synchronization.

# Setting Initial Extract Start Dates for Users

During the initial extract process, in which Siebel data and Microsoft Exchange Server data for a user is first synchronized, the Extract Start Date parameter determines the date of the oldest appointments and tasks that SSSE is to synchronize. The administrator can specify:

■ An extract start date for an individual user

■ A system-wide extract start date that applies to all users for whom individual extract start dates are not specified

If you do not specify a system-wide or an individual extract start date, then all of a user's records are synchronized during the initial extract process.

## About the System-Wide Extract Start Date

For information on setting the system-wide extract start date, see "Tuning SSSE Siebel Profile Parameters" on page 77.

## Setting the Extract Start Date for Individual Users

The following procedure describes how to set extract start dates for individual users.

### *To specify the initial extract start date for an individual user*

**1** Navigate to Administration - PIM Server Integration, and then Configuration.

**2** Select the Siebel profile.

**3** In the Configuration Parameters list, create a record with values similar to the following:

| Section | Parameter | Value |
| --- | --- | --- |
| UserLevelExtractStartDates | *userid* | *MM/DD/YYYY* |
| | where *userid* is the Siebel login of the user for whom you are setting the extract start date | where *MM/DD/YYYY* is the date of the oldest appointments and tasks that SSSE is to synchronize |

# Implementing Import-Only Synchronization of Calendar Records

This topic describes how to configure SSSE so that when the Full Sync option is implemented for the Siebel Calendar domain, only one-way synchronization of calendar items occurs—from Microsoft Exchange to the Siebel application. Calendar items created by a user in Microsoft Outlook are synchronized with the Siebel application, but changes made to the items in the Siebel application are not synchronized back to the user's Microsoft Outlook calendar.

Follow the procedure below to configure import-only synchronization of calendar items.

### *To enable import-only synchronization for the Calendar domain*

**1** Specify the Full Sync option for the Siebel Calendar domain, as described in "Setting Siebel Domain-Level Synchronization" on page 111.

**2** Navigate to Administration - PIM Server Integration, and then Configuration.

**3** Select the Siebel profile.

**4** In the Configuration Parameters applet, create a record with the values shown in the following table.

| Section | Parameter | Value |
|---------|-----------|-------|
| Siebel | InboundCalendarOnly | Y |

## About Setting Calendar and Task Record Synchronization Options

If you enable the Full Sync synchronization option for calendar or to do items, SSSE automatically synchronizes all new or changed calendar and activity records for each user. The following options, however, provide some flexibility in determining whether or not Microsoft Outlook calendar and task records are synchronized with the Siebel application:

■ **Opt-in option.** If you enable this option, SSSE synchronizes only calendar or task records originating in Microsoft Outlook that the user designates for synchronization by placing a defined value in the Category field.

  **NOTE:** With the Opt-in feature, only a single value is used for filtering inbound calendar and task records.

■ **Ignore private records option.** If you enable this option, SSSE does not synchronize any calendar or task records in Microsoft Outlook that have the Private check box selected.

In general, if individuals use the Siebel application to book meetings for other users, or to invite others to meetings, it is recommended that you implement the Full Sync option without enabling the Opt-in or Ignore private records options. For example, in a scenario where call center agents schedule meetings for field sales representatives, it is important that all of an individual sales representative's appointments (personal and business-related) are synchronized with the Siebel application so that the call center agent is aware of when the sales representative is busy and when available.

If you implement the Full Sync option without enabling the Opt-in or Ignore private records options, you can choose to mask the descriptions and comments associated with private Microsoft Outlook calendar or task records (that is, records that have the Private check box selected) with a configured value. For example, the description for all Microsoft Outlook appointments that have the Private check box selected can be configured to display as *Private Appointment* or *Personal Task* when the records are synchronized with the Siebel application. To mask calendar or task record descriptions, create a user property for the relevant business component in Siebel Tools. For information on using Siebel Tools, see *Configuring Siebel Business Applications*.

The following topics describe how to configure each of the options available when the Full Sync synchronization level is set for the Calendar and To Do domains:

■ "Implementing Opt-In Synchronization for Calendar and Task Records" on page 126

■ "Skipping Private Calendar or Task Records During Synchronization" on page 128

# Implementing Opt-In Synchronization for Calendar and Task Records

This topic describes how to configure SSSE to allow users to select which Microsoft Outlook calendar or task records are synchronized with the Siebel application when the Full Sync option is selected for the Siebel Calendar or To Do domains.

If you implement the Opt-in feature, all new or changed Siebel calendar or to-do records are synchronized with Microsoft Outlook, but only calendar and task records in Microsoft Outlook that the user designates for synchronization, by placing an appropriate value in the Category field, are synchronized with the Siebel application. For additional information on designating calendar and task records for synchronization when the Opt-in feature is enabled, see Chapter 8, "Using Siebel Server Sync".

The following procedure describes how to implement Opt-in synchronization for Microsoft Outlook calendar and task records. You can choose to enable this feature for either calendar or task records, or for both types of records.

### To enable opt-in synchronization for calendar or task records

1   Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

2   Select the Siebel Calendar profile.

3   In the Configuration Parameters list, create a record with values similar to the following:

| Section | Parameter | Value |
|---------|-----------|-------|
| Calendar | Private Item Behavior | Opt-in |

4   In the PIM Server Integration Configuration list, select the Siebel Task profile.

5   Repeat Step 3 on page 126 but specify Task for the Section field.

**6** Navigate to Administration - Data, List of Values.

**7** Create four new records, using values similar to the following:

| LOV Type | Display Value | Language-Independent Code |
|---|---|---|
| PIMSI_CATEGORY_VALUE | Siebel Calendar | Siebel Calendar |
| PIMSI_CATEGORY_VALUE | Siebel Task | Siebel Task |
| TODO_TYPE | Siebel Calendar | Siebel Calendar |
| TODO_TYPE | Siebel Task | Siebel Task |

**8** Click the Clear Cache button.

**9** Navigate to Administration - PIM Server Integration, and then Siebel Domains:

  **a** Select Siebel Calendar, and set the value of the PIM Category Value field to Siebel Calendar.

  **b** Select Siebel Task, and set the value of the PIM Category Value field to Siebel Task.

**10** Select the PIM Domains tab:

  **a** Select the Exchange Calendar domain, and set the value of the Category Field to Category.

  **b** Select the Exchange Task domain, and set the value of the Category Field to Category.

**11** Restart the Siebel Service.

**12** To ensure that when Microsoft Outlook task records are synchronized with the Siebel application they display in a user's Siebel My To Do list, specify that the task record Display In value is changed to `To Do and Activities` when the record is synchronized with the Siebel application, by performing the following steps:

  **a** In Siebel Tools, create the following business component user property for the Action business component:

| Name | Value |
|---|---|
| On Field Update Set 2 | "Type", "Display", "IIF(LookupValue('TODO_TYPE', '*Siebel Task*')=[Type], LookupValue('ACTIVITY_DISPLAY_CODE', 'To Do and Activities'), [Display])" <br><br> where: <br><br> *Siebel Task* is the PIM Category Value you have specified for the Siebel Task domain. |

  **b** Query for the business component PIMSI PIM Domain Category BC.

  **c** Change the Search Spec value to the following:

```
[TagBearer Field Id] Is Null
```

For additional information on setting PIM Category values, see "Setting PIM Category Values for Siebel Domains" on page 112.

**d** Recompile the Siebel Repository File, then migrate the repository changes to the test and production environments.

For additional information on migrating repository changes, see *Developing and Deploying Siebel Business Applications*.

**Related Topic**
"About Setting Calendar and Task Record Synchronization Options" on page 125

# Skipping Private Calendar or Task Records During Synchronization

This topic describes how to configure SSSE so that Microsoft Outlook calendar or task records that have the Private check box selected are not synchronized with the Siebel application when the Full Sync option is implemented for the Calendar or To Do domains.

The following procedure describes how to configure SSSE so that all Microsoft Outlook records flagged as Private in the Calendar and Task domains are omitted during the synchronization process. You can choose to implement this option for either the Calendar or Task domain, or for both domains.

### *To skip private calendar or task records during synchronization*

**1** Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

**2** Select the Siebel Calendar profile.

**3** In the Configuration Parameters list, create a record using values similar to the following:

| Section | Parameter | Value |
|---------|-----------|-------|
| Calendar | Private Item Behavior | Ignore |

**4** In the PIM Server Integration Configuration list, select the Siebel Task profile.

**5** Repeat Step 3 on page 128 but specify Task for the Section field.

**6** In the PIM Server Integration Configuration list, select the Connector Profile profile.

**7** In the Configuration Parameters list, create a new record for the Task and Calendar domains as appropriate, using values similar to the following:

| Section | Parameter | Value |
| --- | --- | --- |
| IPM.Task | PrivacyValue | 2 |
| IPM.Appointment | PrivacyValue | Private |

**8** Select the PIM Domains tab and perform the following steps:

■ For the Calendar Domain, select Exchange Calendar in the PIM Domains list, and set the value of Private Field to Private.

■ For the Task domain, select Exchange Task in the PIM Domains list, and set the value of Private Field to Private.

**9** Restart the Siebel Service.

**Related Topic**

# About SSSE Table Maintenance

SSSE stores information about data changes to synchronize in the S_SD_SYNC_INFO table. This information is collected for all users, not just users for whom synchronization has been enabled. Therefore, this table can accumulate a large number of rows in a short time.

SSSE automatically removes rows that are associated with *sync-enabled* users (users who have synchronization enabled) from the S_SD_SYNC_INFO table when the applicable synchronization takes place. SSSE also automatically removes rows that are associated with users who have never synchronized, on a schedule that is determined by the configuration parameter DispCycleCount for GC (Dispatcher Cycle Count for Garbage Collection).

Rows are preserved indefinitely for users who are not currently sync-enabled, but who have synchronized in the past. Preserving these rows allows for correct synchronization if synchronization is later reenabled for one of the users in question. However, if a large number of users have synchronization temporarily disabled, SSSE performance can decline as the size of the S_SD_SYNC_INFO table grows.

For best results, it is recommended that you minimize the number of users who have synchronization disabled after previously synchronizing.

**CAUTION:** Do not delete rows from the S_SD_SYNC_INFO table manually, as this can cause data corruption. You can help control the size of the S_SD_SYNC_INFO table by deleting user map records for users who have previously synchronized but are not currently sync-enabled.

If you want to reenable synchronization for such users at a later time, you must create a new user map record for each such user. When you add a user map record for a user and reenable synchronization for that user, SSSE automatically performs a new initial extract operation for that user. During this initial extract, Microsoft Exchange contact records are checked for duplication before being added as Siebel records. Microsoft Exchange calendar records are not checked for duplication, so a repeat of an initial extract for a given user is likely to result in duplicate Siebel calendar records. For more information about working with the user map, see "Mapping Individual Users" on page 122.

For more information about setting the DispCycleCount for GC configuration parameter, see "Tuning SSSE Siebel Profile Parameters" on page 77.

# About SSSE Log Files

Log files for SSSE reside in the siebsrvr\log directory, along with log files for other Siebel software modules.

The amount of information that is logged can be tuned by adjusting log level settings. By default, multiple log files are created. For information about how to tune log levels or to consolidate log files, see "Modifying Log File Settings" on page 74.

In particular, the log file for the Exchange Connector records the following information, which can be useful during troubleshooting:

■ Exchange Connector successfully establishing a connection to the Microsoft Exchange Server

■ Exchange Connector processing domains for each user, including the number of records extracted for each domain for each user

■ Exchange Connector detecting a conflict

Other useful information that can be logged includes the following:

■ PIMSI Engine and PIMSI Dispatcher startup and shutdown information is captured in the log file whose name is of the form siebel.*ComputerName*.log, where *ComputerName* is the name of the computer where PIMSI Engine or PIMSI Dispatcher runs.

■ Several statements are typically logged regarding the beginning and ending of each extract session. This information is captured in log files that have names of the forms PIMSIEng*xxxxx*.log and PIMSIDispatcher*xxxxx*.log.

For examples of SSSE log messages, see Table 23.

Table 23.    Typical SSSE Log Messages

| SSSE Event | Example of Log Message for Event |
|---|---|
| User Extract Session Start | PIMSIEngSvc PIMSIInformational 4 0 2004-10-14 20:55:14 BatchMgr: Starting extract for user PIMSI1120 |
| Extract data from Exchange Start | PIMSIEngSvc PIMSIInformational 4 0 2004-10-14 20:55:15 SBL-MBL-51026: Extracting Domain IPM.Contact for User PIMSI1120. |

Table 23.    Typical SSSE Log Messages

| SSSE Event | Example of Log Message for Event |
|---|---|
| Extract data from Exchange End | PIMSIEngSvc PIMSIInformational 4 0 2004-10-14 20:55:30 Connector: CSSExchangeConnector::ExtractUser (): Extracted 1 records for user pimsi1120@pimsisiebel.com for domain IPM.Contact |
| Extract data from Siebel Start | PIMSIEngSvc PIMSIInformational 4 0 2004-10-14 20:55:51 SBL-MBL-51026: Extracting Domain PIMSI Intermediate Business Contact for User PIMSI1120. |
| Extract data from Siebel End | PIMSIEngSvc PIMSIInformational 4 0 2004-10-14 20:55:51 BatchMgr: Extracted 2 records for user PIMSI1120 for domain PIMSI Intermediate Business Contact |
| Import an Exchange record to Siebel | PIMSIEngSvc PIMSIDebug 5 0 2004-10-14 20:55:47 (ssuserinit.cpp (1002)) SBL-MBL-51027: Pushed row: RowID=7aac6063c0a8fd42806472a6ec618a0400000123a203 , User=pimsi1120@pimsisiebel.com, Domain=IPM.Contact. |
| Export a Siebel record to Exchange | PIMSIEngSvc PIMSIDebug 5 0 2004-10-14 20:55:55 (ssuserinit.cpp (4696)) SBL-MBL-51027: Pushed row: RowID=42-5AUWH , User=PIMSI1120, Domain=PIMSI Intermediate Business Contact. |
| User Extract Session End | PIMSIEngSvc PIMSIInformational 4 0 2004-10-14 20:55:57 SBL-MBL-51003: Successfully extracted domain All Domains for user PIMSI1120. |

For information on the SSSE error messages that can occur when a user's data is synchronized, see "Synchronization Error Messages" on page 183.

# About Moving or Deleting Mailboxes for SSSE Users

From time to time, you may have to move users' Microsoft Exchange mailboxes from one Microsoft Exchange Server to another, or you may have to delete a user's Microsoft Exchange mailbox. (If you delete a user's Exchange mailbox, also disable the user for synchronization.) When this situation occurs for an SSSE user, simply follow Microsoft's guidelines for moving or deleting a user's Microsoft Exchange mailbox. No additional steps are required for SSSE users because the Exchange Connector queries the Active Directory for the current location of a user's mailbox at the start of each synchronization cycle.

# Skipping Records That Generate Synchronization Errors

When SSSE synchronizes a user's data during the inbound synchronization process, specific records might fail to synchronize because of record-level errors, for example, parsing or validation errors. In these circumstances, whether or not SSSE continues to synchronize the user's remaining records and save the user's sync state for the session depends on how you configure the Always Save Syncstate parameter:

■ Always Save Syncstate parameter is set to Y

  If the Always Save Syncstate parameter is set to Y, if a record fails to synchronize during the inbound synchronization process because of an error, for example, a required field is missing, SSSE continues to synchronize all of the user's other records and saves the user's sync state for the session. During the next synchronization cycle, SSSE does not attempt to synchronize the failed record again (it is skipped), unless the record is updated in the intervening time.

■ Always Save Syncstate parameter is set to N

  If the Always Save Syncstate parameter is set to N, if a record fails to synchronize during the inbound synchronization process because of an error, the synchronization process stops, and the user's sync state for the session is not saved. During the next synchronization cycle, SSSE attempts to synchronize all of the user's records again, but if the error in the original record has not been corrected, the synchronization process will again stop.

To configure SSSE to specify whether or not a user's sync state is saved for sessions during which specific records fail to synchronize, perform the following procedure.

**NOTE:** The default value of the Always Save Syncstate parameter is N. If you do not set the Always Save Syncstate parameter to Y, record skipping does not occur during synchronization.

### To enable record skipping during synchronization

1  Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

2  In the PIM Server Integration Configuration list, select the Siebel profile.

3  In the Configuration Parameters list, click New, and then complete the fields as described in the following table.

| Field | Value |
|-------|-------|
| Section | SyncState |
| Parameter | Always Save Syncstate |
| Value | Enter either Y or N. The default value is N. |

You can configure SSSE so that the administrator is notified by email when synchronization errors occur. For further information, see .

# Process of Configuring Email Notification of Synchronization Errors

This topic describes how to configure SSSE so that the administrator is notified by email if synchronization errors are generated during an inbound synchronization session. The administrator can then resolve the issue, or notify the user of the problem so that it can be resolved. Email notification is available for synchronization errors generated by the PIMSI Engine and the Exchange Connector.

To configure SSSE so that the administrator receives email notification of synchronization errors, perform the following tasks:

1 "Configuring System Alerts for Email Notification of PIMSI Engine Synchronization Errors" on page 133

2 "Configuring System Alerts for Email Notification of Exchange Connector Synchronization Errors" on page 137

## Configuring System Alerts for Email Notification of PIMSI Engine Synchronization Errors

You can configure SSSE so that the administrator receives email notification of errors generated by the PIMSI Engine during the inbound synchronization process.

To enable email notification of PIMSI Engine errors, you must create a system alert, then define the email body template to be used for error notification messages; this topic describes both of these tasks. This topic also includes an example of defining an email template for PIMSI Engine synchronization errors for the Task domain.

This task is a step in "Process of Configuring Email Notification of Synchronization Errors" on page 133.

To enable email notification of PIMSI Engine errors, perform the following procedure.

### *To configure system alerts for PIMSI Engine synchronization errors*

1 Configure a system alert for the Siebel Enterprise as follows:

    a Navigate to Administration - Server Configuration, Enterprises, and then System Alerts.

    b In the System Alerts list, create a new system alert, specifying values similar to the following:

| Alert Definition Name | Alias | Media |
|---|---|---|
| *Alertname* | *Alertalias* | EmailNotification |
| Example: Administrator Email Alerts | Example: AdminEmailAlert | |

**c** In the Alert Parameters list, create the following alert parameters, and specify values for the parameters as described.

| Parameter Name | Value |
| --- | --- |
| SMTPServer | SMTP server name or IP address through which the email is sent |
| | Example: `mymailserver.company.com` |
| SMTPServerPort | Port number of the SMTP server |
| | Example: `25` |
| AdminEmailAddress | A comma delimited email address list of the administrators to be notified |
| | Example: `ssseadmin@sdcexch02.siebel.com` |
| Fromaddress | The originating address of the email notification |
| | Example: `ssseadmin@sdcexch02.siebel.com` |
| DLLName | ssemailntfy |

**2** Define the email body template to be used for PIMSI Engine error notification emails as follows:

**a** Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

**b** Select the Exchange Calendar Profile.

c   In the Configuration Parameters list, create records with values similar to the following:

**NOTE:** The Domain name you specify must match an existing Domain Identifier field, for
example, IPM Task. To view domain identifiers, navigate to Administration - PIM Server
Integration, and then PIM Domains.

| Section | Parameter | Value |
| --- | --- | --- |
| Email Template:*Domain Name* | MsgBody1 | Specify the body of the email with place holders. The supported place holders are:<br><br>■ %Domain%. Name of the domain is substituted<br><br>■ %login%. Name of the login is substituted<br><br>■ %ErrorMessage%. Description of the error<br><br>■ [Field Identifier]. Substitutes the value of the Siebel domain field identifier in the parentheses.<br><br>To view the Siebel domain field identifiers, navigate to Administration - PIM Server Integration, Siebel Domains, and then Siebel Domain Fields. |
| Email Template:*Domain Name* | MsgBody2 | This parameter allows you to add additional email body text, if required, to the supported place holders described above. |

**3** To increase the maximum notification size to allow larger email messages, set the Notify Message
size to 1024 as follows:

a   Log in to Server Manager using a command such as the following:

    srvrmgr /u *db_user_name* /p *db_password* /e *enterprise_server* /g *gateway_host*
    /s *server_name*

b   At the srvrmgr> prompt, enter the following command:

    change param NOTIFYMSGSIZE=1024 for server *servername*

For information on the Server Manager program, see *Siebel System Administration Guide*.

**NOTE:** If you do not increase the message size, the system sends a shorter message with fewer
details.

For an example of defining an email template for PIMSI Engine synchronization errors for the Task
domain, see "Example of Defining an Email Body Template for Synchronization Error Notifications" on
page 136.

## Example of Defining an Email Body Template for Synchronization Error Notifications

This topic gives one example of defining an email body template for PIMSI Engine synchronization error notifications. You may use this feature differently, depending on your business model.

In the following procedure, an email body template is configured for the Task domain.

### *To define an email body template for the Task domain*

1  Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

2  Select the Exchange Calendar Profile.

3  In the Configuration Parameters list, create records with values similar to the following:

| Section | Parameter | Value |
| --- | --- | --- |
| Email Template:IPM.Task | MsgBody1 | \n SSSE fails to synchronize %Domain% record for the sync enabled user %login% <br> \n The record has the following characteristics <br><br> \n Subject: [Subject] <br> Start Date: [StartDate] <br> End Date: [EndDate] <br> \n The error <br><br> **NOTE:** The characters \n indicate the start of a new line. |
| Email Template:IPM.Task | MsgBody2 | Message was %ErrorMessage% |

Assume the following values exist for the placeholders used in the message body of the email template defined in this example:

■  Domain = IPM.Task

■  Login = GABBO

■  Subject = Meeting in the month of March

■  Start Date = 3/3/2008

■  End Date= 3/5/2008

■  Error Message = One or more required fields are missing.

Then the email message received by the administrator when a synchronization error occurs in the Task domain will read as follows:

```
SSSE fails to synchronize IPM.Task record for the sync enabled user GABBO
The record has the following characteristics:
Subject: Meeting in the month of March
```

```
Start Date: 3/3/2008
End Date: 3/5/2008
The error Message was: One or more required fields are missing.
```

# Configuring System Alerts for Email Notification of Exchange Connector Synchronization Errors

This topic describes how to configure SSSE so that the administrator receives email notification of errors generated by the Exchange Connector during the inbound synchronization process.

This task is a step in .

To enable email notification of Exchange Connector synchronization errors, perform the following procedure.

### *To configure system alerts for Exchange Connector synchronization errors*

**1**  Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

**2**  In the PIM Server Integration Configuration list, select the Exchange 2000/2003 Connector profile.

**3**  In the Configuration Parameters list, create the following alert parameters, and specify values for the parameters as described:

| Section | Parameter | Value |
|---------|-----------|-------|
| AdminNotify | AdminEmailAddress | A comma delimited email address list of the administrators to be notified<br><br>Example: ssseadmin@sdcexch02.siebel.com |
| AdminNotify | FromAddress | The originating address of the email notification<br><br>Example: ssseadmin@sdcexch02.siebel.com |
| AdminNotify | SMTPServer | SMTP server name or IP address through which the email is sent<br><br>Example: mymailserver.company.com |
| AdminNotify | SMTPServerPort | Port number of the SMTP server<br><br>Example: 25 |
| AdminNotify | Message | Specify the content of the notification email in this field |

# 7 Customizing Siebel Server Sync

This chapter describes ways in which you can customize SSSE. It includes the following topics:

## About Customizing SSSE

SSSE supports the following kinds of customization within each supported domain and for a specified set of database tables:

- Modifying certain properties of fields that are already available for synchronization, such as field names

- Modifying existing field mappings in the following ways:

  - Mapping a Microsoft Exchange field that is already synchronized with a Siebel field that you add for synchronization

  - Mapping a Siebel field or multi-value group (MVG) that is already synchronized with a Microsoft Exchange field that you add for synchronization

- Adding new field mappings in the following ways:

- ■ Adding a new field or MVG for synchronization in a supported Siebel business component and mapping it to a previously unmapped Microsoft Exchange field (includes adding a new column in the underlying Siebel base table)

- ■ Adding a new field for synchronization in Microsoft Exchange and mapping it to a previously unmapped Siebel field or MVG

■ Deleting existing field mappings

The customization process can involve changing some or all of the following entities:

■ Integration objects

■ Integration data maps

■ Domain configurations

■ Field configurations

Any administrator who customizes SSSE requires experience with working in Siebel Tools, and a good working knowledge of Microsoft Exchange, including the internal representations of field names in Microsoft Exchange.

# About Synchronizing Additional Fields

SSSE allows fields from certain database tables to be added for synchronization, but does not support fields from certain other tables. Other characteristics can also affect whether SSSE can synchronize a field successfully. For example, SSSE does not support synchronization of calculated fields. This topic discusses supported and unsupported tables, and other characteristics of fields that affect synchronization possibilities.

A major factor in whether or not you can add a field for synchronization is whether or not SSSE will detect changes to that field. SSSE monitors a specific set of supported database tables to identify changes to be synchronized with Microsoft Exchange. If a field resides in a table that SSSE does not monitor, SSSE does not detect changes in field values, so synchronization of changes in those tables is not supported.

Table 24 lists the tables in each Siebel Domain that can have fields added for synchronization. You can add most fields from these tables for synchronization.

**NOTE:** If a field based on a particular table is a multivalue group (MVG), then SSSE synchronizes only the Primary value from the MVG.

**CAUTION:** When choosing fields from supported tables to add for synchronization, do not choose business component system fields or fields that have special meaning for Siebel components (and that ought to be updated only by those Siebel components), since synchronizing such fields can have unpredictable results.

Table 24.  Siebel Domains and Tables That Allow Fields To Be Added for Synchronization

| Siebel Domain | Supported Tables | Is Field Based on Table an MVG |
|---|---|---|
| Business Contact | S_ADDR_ORG | Yes |
| | S_ADDR_PER | Yes |
| | S_CONTACT | No |
| | S_CONTACT_INFO | Intersection table |
| | S_OPTY | No |
| | S_ORG_EXT | No |
| | S_PARTY | No |
| | S_PROJ | No |
| | S_USER | No |
| Calendar and Tasks | S_EVT_ACT | No |
| | S_OPTY | No |
| | S_ORG_EXT | No |
| | S_PROJ | No |
| | S_SRV_REQ | No |
| Employees | S_ADDR_ORG | Yes |
| | S_CONTACT | No |
| | S_CONTACT_INFO | Intersection table |
| | S_EMP_PER | No |
| | S_PARTY | No |
| | S_POSTN | No |
| | S_USER | No |

Table 24.    Siebel Domains and Tables That Allow Fields To Be Added for Synchronization

| Siebel Domain | Supported Tables | Is Field Based on Table an MVG |
|---|---|---|
| Personal Contacts | S_ADDR_PER | Yes |
| | S_CONTACT | No |
| | S_CONTACT_INFO | Intersection table |
| | S_PARTY | No |

# Process of Customizing SSSE

To add a field to the fields that SSSE synchronizes, or to modify an existing field that is synchronized, perform the following tasks before starting or restarting the PIMSI Engine and PIMSI Dispatcher components:

**1** "Changing Integration Objects" on page 143

Update the integration object for the Siebel domain that the new or amended field is associated with to reflect the new or amended field. Compile the SRF file to incorporate the field changes.

**2** "Changing SSSE Data Maps" on page 148

Change the Inbound and Outbound data maps to reflect the new or amended fields.

**3** "Changing Siebel Domain Configurations" on page 149

Synchronize the Inbound Data Map with the Siebel domain to apply the new field or field modifications to the Siebel domain.

**4** "Changing PIM Domain Configuration" on page 151

Add the new or amended field to the PIM domain.

**5** "Changing Domain Map Configurations" on page 156

Map the Siebel domain field to the PIM domain field so that the two fields can be synchronized.

**6** (Optional) "Changing User Filtering Configurations" on page 159

Change the SSSE user filtering configuration, if required.

**NOTE:** All tasks in this process assume that the field already exists in the appropriate Siebel Business Component.

# About SSSE Integration Objects

Each domain that SSSE synchronizes has a Siebel integration object and an intermediate integration object. Siebel integration objects are used to obtain information from the Siebel database. Intermediate integration objects are used to send that data to the PIMSI Engine component.

You must modify integration objects any time you customize SSSE, whether the customization involves adding new fields or modifying existing fields. Table 25 shows the integration objects for each domain that SSSE handles.

Table 25.  Integration Object Names for Siebel Domains

| Domain | Siebel Integration Object | Intermediate Integration Object |
|---|---|---|
| Business Contact | PIMSI Business Contact | PIMSI Intermediate Business Contact |
| Calendar | PIMSI Calendar | PIMSI Intermediate Calendar |
| Employee | PIMSI Employee | PIMSI Intermediate Employee |
| Personal Contact | PIMSI Contact Personal | PIMSI Intermediate PersonalContact |
| Task | PIMSI Task | PIMSI Intermediate Task |

For information on changing integration objects like this, see "Changing Integration Objects" on page 143.

# Changing Integration Objects

Any time you add or change a field for SSSE to synchronize, you must change one or more integration objects for the Siebel domain that is involved. Table 26 shows the changes that are required.

**NOTE:** When you add a new field for synchronization, or modify the properties of a field that is already available for synchronization, the new or amended field is not visible in related records that have previously been synchronized. The new or amended field becomes visible in the related record only when the record is changed again, either in Microsoft Outlook or in the Siebel application, because only changed records are synchronized.

This task is a step in "Process of Customizing SSSE" on page 142.

Table 26.  Integration Object Change Requirements

| Field Change | Integration Object Modifications Required |
|---|---|
| Add a new field for synchronization | Siebel integration object and intermediate integration object |
| Modify an existing field that is synchronized | Intermediate integration object |

The following procedure briefly describes how to change an integration object as part of customizing SSSE. For more information about integration objects, see "About SSSE Integration Objects" on page 142.

For an example of how to perform this task for a new field that you want to synchronize, see "Example of Changing Integration Objects" on page 144.

**NOTE:** This procedure assumes that the new field already exists in the appropriate Siebel business component, but does not yet exist in the Siebel integration object or the intermediate integration object. The procedure also assumes that the new field has not yet been synchronized.

### *To change an integration object*

**1** Log in to Siebel Tools.

**2** Select the integration object that you want to change.

**3** Expand the Integration Object object, then select the Integration Component object.

**4** Select the integration component for which a field is to be changed or added.

**5** Change the field properties of the integration component as required.

**6** Save the record.

**7** Recompile the SRF for the project.

# Example of Changing Integration Objects

This topic gives one example of changing integration objects as part of customizing SSSE. You may use this feature differently, depending on your business requirements.

In this example, you want to map the Spouse field of a Siebel business contact to the corresponding Spouse field of a Microsoft Outlook business contact so SSSE can synchronize it. To do this, you must first:

**1** Map the existing contact business component field, Spouse, to the Siebel integration object and the intermediate integration object for the Business Contact domain.

**2** Expose the Spouse field in the user interface.

The procedure to perform these tasks is given below.

For more information about integration objects, see "About SSSE Integration Objects" on page 142.

**NOTE:** This example assumes that the Spouse field already exists in the appropriate Siebel business component, but does not yet exist in the Siebel integration object or the intermediate integration object, and it has not yet been synchronized.

### *To change Siebel and intermediate integration objects for a new field*

**1** Log in to Siebel Tools.

**2** Select the View menu, and then Options.

**3** Click the Object Explorer tab.

**4** In the Object Explorer Hierarchy list box, select the Integration Object check box, and click OK.

**5** In the Object Explorer, select Integration Object, and complete the following substeps:

    **a** In the Object List Editor, select PIMSI Business Contact.

    **b** From the Tools menu, select Lock Project.

    **c** In the Object Explorer, expand Integration Object, then select Integration Component.

    **d** In the Object List Editor, select Contact.

    **e** In the Object Explorer, expand Integration Component, then select Integration Component Field.

    **f** In the Name field, query for Spouse.

    **g** In the Spouse field, scroll to the right until the Inactive field is visible, and clear the Inactive check box.

**6** In the Object Explorer, select Integration Object, and complete the following substeps:

    **a** In the Object List Editor, select PIMSI Intermediate Business Contact.

    **b** In the Object Explorer, expand Integration Object, then select Integration Component.

    **c** In the Object List Editor, select Business Contact.

    **d** In the Object Explorer, expand Integration Component, then select Integration Component Field.

    **e** In the Object List Editor, right-click and choose New Record.

**f** Enter values for the new Spouse field as shown in the following table.

| Field Property | Field Property Value | Comment |
| --- | --- | --- |
| Name | Spouse | Internal name of the field. |
| Data Type | DTYPE_TEXT | Data type of the field. |
| Type | Data | Field type. |
| External Name | Spouse | For a Siebel integration object, External Name must match the name of the field as it is specified in the Siebel business component. For an intermediate integration object, you can choose any value for External Name. |
| External Sequence | 19 | Specifies the order in which the field will appear when Data Mapper is used to map the fields. Enter a value that is not already present in the field list, such as the number that follows the value used for the last existing field in the sequence. It is recommended that you use the same value for XML Sequence and External Sequence. |
| XML Sequence | 19 | Specifies the order in which the field will appear in the Output XML message. Enter a value that is not already present in the field list, such as the number that follows the value used for the last existing field in the sequence. It is recommended that you use the same value for XML Sequence and External Sequence. |
| XML Tag | Spouse | Enter a value that does not contain any spaces. This value is included in the XML output that SSSE produces. |

**CAUTION:** For Siebel integration objects (but not intermediate integration objects), if an MVG field is not a user key, be sure to set the XML Sequence property value and the External Sequence property value to be greater than the value of a user key MVG field. If you do not specify a greater value, synchronization may not work properly for information that travels from Microsoft Exchange to the Siebel application.

A user key MVG field is a field that is specified in the Integration Component User Key object as a user key. If any new MVG field is added to the Integration Component, then the XML Sequence and External Sequence property value for the new field must be greater than that of the user key field.

**7** Expose the Spouse field in the user interface by completing the following substeps:

**a** In the Object Explorer, select the Applet object.

**b** Query for the Contact List Applet.

**c** From the Tools menu, choose Lock Project.

**d** In the Object Explorer, expand Applet, then List, and click on List Column.

**e** In the Object List Editor, right click and choose New Record.

**f** Enter the following information for the new Spouse record:

| Field | Value |
|---|---|
| Name | Spouse |
| Field | Spouse |
| Display Name | Spouse |
| HTML Type | Field |

**g** Right-click on the Contact List Applet record, and select Edit Web Layout.

**h** In the Controls/Columns window, select Edit List mode.

**i** In the Applet (Contact List Applet) layout window, scroll to the right until empty Field placeholders are visible.

**j** In the Controls/Columns window, drag the Spouse control onto an empty Field placeholder in the Applet (Contact List Applet) layout window.

**k** Close the Applet (Contact List Applet) layout window and, when prompted as to whether you want to save the changes you have made to the Contact List Applet, click Yes.

**8** Recompile the SRF for the project, then stop and restart the Siebel Server.

Use this recompiled SRF when you make corresponding changes to Data Maps, as described in "Example of Changing Data Maps" on page 148.

# About SSSE Data Maps

Each domain that SSSE synchronizes has an Inbound Data Map for converting Microsoft Exchange data to Siebel data, and an Outbound Data Map for converting Siebel data to Microsoft Exchange data. Data maps must be modified any time you customize SSSE, whether the customization involves adding new fields or modifying existing fields. Table 27 shows the names of the data maps for each domain that SSSE handles.

Table 27. Data Map Names for Siebel Domains

| Domain | Inbound Data Map | Outbound Data Map |
|---|---|---|
| Business Contact | PIMSI Business Contact Inbound Map | PIMSI Business Contact Outbound Map |
| Calendar | PIMSI Calendar Inbound Map | PIMSI Calendar Outbound Map |
| Employee | PIMSI Employee Inbound Map | PIMSI Employee Outbound Map |

Table 27.  Data Map Names for Siebel Domains

| Domain | Inbound Data Map | Outbound Data Map |
|---|---|---|
| Personal Contact | PIMSI Personal Contact Inbound Map | PIMSI Personal Contact Outbound Map |
| Task | PIMSI Task Inbound Map | PIMSI Task Outbound Map |

For information on changing SSSE data maps, see "Changing SSSE Data Maps" on page 148.

# Changing SSSE Data Maps

Data maps must be modified whenever you add a field for SSSE to synchronize and whenever you modify a synchronized field. For more information about Data Maps, see "About SSSE Data Maps" on page 147. For an example of how to change data maps for a new field to be synchronized, see "Example of Changing Data Maps" on page 148.

This task is a step in "Process of Customizing SSSE" on page 142.

**CAUTION:** You must change the inbound data maps for the applicable domains before you change Siebel domain configurations as described in "Changing Siebel Domain Configurations" on page 149. If this is not done, then Siebel administration screens for SSSE may not reflect the customization tasks you have already completed.

The following procedure briefly describes how to change a data map as part of customizing SSSE.

*To change a data map for SSSE*

**1** Use the SRF that contains your changes to integration objects.

**2** In the Siebel application, navigate to Administration - Integration, Data Map Editor.

**3** In the Integration Object Map list, select the Data Map you want to change.

   For information about the names of data maps for SSSE domains, see "About SSSE Data Maps" on page 147.

**4** In the Integration Component Map list, select the record for the component you want to change, and then scroll down.

   To determine which component to select, inspect the Source Component Name column in the Integration Component Map list for the component that you modified in Siebel Tools. The same component must be modified in the data map.

**5** In the Integration Field Map list, create a new record, if necessary, and modify field values.

# Example of Changing Data Maps

This topic gives one example of changing data maps as part of customizing SSSE. You may use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 144, you want to map the Siebel Spouse field of a Siebel business contact to the corresponding Spouse field of a Microsoft Outlook business contact so SSSE can synchronize it. To accomplish this, you must change the PIMSI Business Contact Inbound Map and the PIMSI Business Contact Outbound Map. For more information about integration objects, see "About SSSE Integration Objects" on page 142.

The following procedure describes how to change the data map for a new field.

### To change the data map for a new field

**1** Use the SRF that contains the changes you made to integration objects in "Example of Changing Integration Objects" on page 144.

**2** In your Siebel application, navigate to Administration - Integration, and then Data Map Editor.

**3** In the Integration Object Map list, select the PIMSI Business Contact Inbound Map.

**4** In the Integration Component Map list, select BusinessContact_Contact.

**5** Scroll down to the Integration Field Map list, click New, and complete the fields as shown in the following table.

| Field | Value |
|---|---|
| Source Expression | [Spouse] |
| Target Field Name | Spouse |

**NOTE:** The value entered for the Source Expression field is an expression. In most cases, the expression is an integration component field name enclosed in square brackets. However, it can be a more complex expression, for example, an IIF(…) expression. See *Configuring Siebel Business Applications* for information on building expressions.

**6** Save the record.

**7** In the Integration Object Map list, select the PIMSI Business Contact Outbound Map.

**8** In the Integration Component Map list, select the Contact_BusinessContact record.

**9** Repeat Step 5 through Step 6 on page 149.

You must now change Siebel domain configurations, as described in "Example of Changing Siebel Domain Configurations" on page 150.

# Changing Siebel Domain Configurations

The following procedure describes how to change a Siebel domain configuration, as part of customizing SSSE. This task is a step in "Process of Customizing SSSE" on page 142.

This procedure involves Field Type settings for both Siebel and PIM domains. The following constraints exist:

■ Synchronization requires mapping between Siebel fields and PIM fields.

■ Mapping is only possible between fields that are listed in the Siebel Domain Fields list and the PIM Domain Fields list.

■ For each field that you want to synchronize, the Field Type value for the Siebel Domain Field must match the Field Type value for the corresponding PIM Domain Field.

For more information about SSSE PIM domain configuration, see "Changing PIM Domain Configuration" on page 151.

For an example of how to perform this task for a new field to be synchronized, see "Example of Changing Siebel Domain Configurations" on page 150.

### *To change a Siebel domain configuration*

1   Navigate to Administration - PIM Server Integration, and then Siebel Domains.

2   In the Siebel Domains list, select the domain to reconfigure.

3   In the Siebel Domain Fields list, click Sync Fields.

This action synchronizes the inbound data maps with Siebel domains, so the domains acquire the new fields and field modifications that were made in the corresponding inbound data maps. However, Sync Fields does not delete fields that you deleted in data maps. You must delete these fields manually, as described in Step 5 of this procedure.

4   In the Siebel Domain Fields list, select the record for the newly created or updated field, and set an appropriate value for Field Type.

The value often describes the type of data that the Siebel field holds. For instance, both the Business Phone field and the Home Phone field may have Field Type set to Phone.

**NOTE:** In order for SSSE to map a Siebel field to a PIM field successfully, you must set Field Type for the Siebel field to a value that matches the field type of the PIM field.

5   In the Siebel Domain Fields list, use standard query techniques to locate the records for any fields you deleted from inbound data maps, and delete those records.

# Example of Changing Siebel Domain Configurations

This topic gives one example of changing SSSE Siebel domain configuration settings as part of customizing SSSE. You may use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 144, you want to map the Spouse field of a Siebel business contact record to the corresponding Spouse field of a Microsoft Outlook business contact record so SSSE can synchronize it. To accomplish this, you must change the Siebel domain configuration as described in the following procedure.

### *To change a Siebel domain configuration for a new field*

1   Navigate to Administration - PIM Server Integration, and then Siebel Domains.

**2** In the Siebel Domains list, select the Siebel Business Contact record.

**3** In the Siebel Domain Fields list, click Sync Fields.

**4** In the Siebel Domain Fields list, query for the Spouse record.

**5** In the Spouse record, set the Field Type to Spouse.

You must now change PIM domain configurations, as described in "Example of Changing PIM Domain Configurations" on page 155.

# Changing PIM Domain Configuration

The following procedure describes how to change a PIM domain configuration, as part of customizing SSSE. This task must be performed if you want to enable synchronization for a PIM field that SSSE does not currently synchronize.

This task is a step in "Process of Customizing SSSE" on page 142.

This procedure involves Field Type settings for both Siebel and PIM domains. The following constraints exist:

■ Synchronization requires mapping between Siebel fields and PIM fields.

■ Mapping is only possible between fields that are listed in the Siebel Domain Fields list and the PIM Domain Fields list.

■ For each field to be synchronized, the Field Type value for the Siebel Domain Field must match the Field Type value for the corresponding PIM Domain Field.

For more information about SSSE Siebel domain configuration, see "Changing Siebel Domain Configurations" on page 149.

For an example of how to perform this task for a new field to be synchronized, see "Example of Changing PIM Domain Configurations" on page 155.

### To change a PIM domain configuration

**1** Navigate to Administration - PIM Server Integration, and then PIM Domains.

**2** In the PIM Domains list, select the domain to reconfigure.

**3** In the PIM Domain Fields list, click New to create a record for the new PIM field, and complete the fields as shown in the following table.

| Field | Comments |
| --- | --- |
| Name | Specify a name of your choosing for SSSE to use to identify this PIM field in a later configuration step. Make a note of the name you choose. |
| Field Identifier | Specify a name of your choosing for SSSE to use to identify this PIM field internally. |

| Field | Comments |
|---|---|
| Field Type | Select a value that describes the kind of data the PIM field holds, using non-technical terms that indicate the field's purpose, such as City or Last Name or Pager. Must match the Field Type value for the corresponding Siebel field. Available values are specified in the Siebel List of Values (LOV) PIMSI_FIELD_CLASS. |
| Data Type | Select a value that technically specifies the kind of data the PIM field holds, such as Boolean or Integer or Unicode String. Valid values depend on the PIM field you want to synchronize.<br><br>**NOTE:** The Siebel List of Values (LOV) PIMSI_FLD_DATA_TYPE lists all the values that you can specify for Data Type, but many of the values in the LOV are not valid for any individual PIM field. |

**4** Navigate to Administration - PIM Server Integration, and then Configuration.

**5** In the PIM Server Integration Configuration list, select the domain to reconfigure, such as Exchange Calendar, Exchange Contact, or Exchange Task.

**6** In the Configuration Parameters list, click New and complete the fields as shown in Table 28 and Table 29.

**NOTE:** To fully specify a PIM field for synchronization, you might have to repeat this step several times, creating several records that specify the same value for Section but different values for Parameter and Value.

Table 28.   PIM Field Configuration Parameters and Values (General Information)

| Field | Comments |
|---|---|
| Section | Enter the value you specified for Name in Step 3 on page 151. |
| Parameter | Enter the name of the Exchange API that provides access to the PIM field you want to synchronize. For more information, see Table 29. |
| Value | Enter the name or other value that the Parameter API uses to identify the PIM field you want to synchronize. For more information, see Table 29. |

Table 29.  PIM Field Configuration Parameters and Values (Domain-Specific Information)

| PIM Domain | Parameter | Values |
|---|---|---|
| Exchange Contact or Exchange Task | MAPIPropertyName | A MAPIPropertyName value is required for all Microsoft Exchange Contact or Exchange Task fields.<br><br>■ For MAPI named properties, specify the identifier of the MAPI property.<br><br>■ For MAPI non-named properties, specify the 8-digit hexadecimal identifier of the MAPI field.<br><br>For more information about MAPI named and non-named properties, see your MAPI documentation. |
| | PropertySetGUID | A PropertySetGUID value is required for Microsoft Exchange Contact or Exchange Task fields that are MAPI named properties.<br><br>Specify the Global Unique Identifier (GUID) of the property. If the named property is a custom field, specify the GUID value for PS_PUBLIC_STRINGS or PS_MAPI. If the named property is not a custom field, specify the existing GUID.<br><br>For more information about property set GUIDs for MAPI named properties, consult your MAPI documentation. |
| | SubNamespace | A SubNamespace value is required for Microsoft Exchange Contact or Exchange Task fields that are MAPI named properties. Valid values are Id and String. |

Table 29.   PIM Field Configuration Parameters and Values (Domain-Specific Information)

| PIM Domain | Parameter | Values |
|---|---|---|
| Exchange Calendar | DAVPropertyName | If the field you are specifying can be defined using an existing WWW Distributed Authoring and Versioning (WebDAV) property name, specify that name.<br><br>SSSE uses WebDAV for most calendar information that travels from the Siebel database to Microsoft Exchange (outbound data). For information regarding WebDAV properties, see your Microsoft Exchange SDK documentation. |
| | ICALPropertyName | If the field you are specifying can be defined using an existing Internet Calendaring (iCal) property name, specify that name.<br><br>SSSE uses iCal for most calendar information that travels from Microsoft Exchange to the Siebel database (inbound data). For information regarding iCal properties, consult RFC #2445. |
| | MAPIPropertyName | If the field you are specifying cannot be defined using an existing iCal property name for inbound data or an existing WebDav property name for outbound data, specify a MAPIPropertyName value for a MAPI named property.<br><br>SSSE uses MAPI to synchronize any Calendar fields that cannot be defined using existing iCal or WebDav properties. For more information about MAPI named properties, see your MAPI documentation. |
| | Namespace | Specify a valid property namespace. For information regarding namespaces, see your Microsoft Exchange SDK documentation. |
| | PropertySetGUID | A PropertySetGUID value is required for Microsoft Exchange Calendar fields that are MAPI named properties.<br><br>Specify the Global Unique Identifier (GUID) of the property. If the named property is a custom field, specify the GUID value for PS_PUBLIC_STRINGS or PS_MAPI. If the named property is not a custom field, specify the existing GUID.<br><br>For more information about property set GUIDs for MAPI named properties, see your MAPI documentation. |
| | SubNamespace | A SubNamespace value is required for Microsoft Exchange Calendar fields that are MAPI named properties. Specify the value String. |

# Example of Changing PIM Domain Configurations

This topic gives one example of changing PIM domain configuration settings as part of customizing SSSE. You may use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 144, you want to map the Spouse field of a Siebel business contact record to the corresponding Spouse field of a Microsoft Outlook business contact record so SSSE can synchronize it. To accomplish this, you must change the PIM domain configuration as described in the following procedure.

### *To change a PIM domain configuration*

1   Navigate to Administration - PIM Server Integration, and then PIM Domains.

2   In the PIM Domains list, select Exchange Contact.

3   In the PIM Domain Fields list, query for the Spouse field.

4   Update the Spouse field with the values shown in the following table.

| Field | Value |
|---|---|
| Name | Spouse |
| Field Identifier | PR_SPOUSE_NAME |
| Field Type | Spouse |
| Data Type | Unicode String |

5   Navigate to Administration - PIM Server Integration, and then Configuration.

6   In the PIM Server Integration Configuration list, select Exchange Contact.

7   In the Configuration Parameters list, click New and complete the fields as shown in the following table:

| Field | Value |
|---|---|
| Section | Spouse |
| Parameter | MAPIPropertyName |
| Value | 0x3A48001F<br><br>For information on Messaging Application Programming Interface (MAPI) property names, navigate to the Microsoft MSDN Web site at the following URL:<br><br>http://msdn.microsoft.com |

If the Spouse configuration parameter record already exists in the Siebel database, ensure that it contains the values listed in the table above.

You must now change domain map configurations, as described in "Example of Changing Domain Map Configurations" on page 157.

# Changing Domain Map Configurations

The following procedure describes how to change a domain map configuration after designating a field for synchronization, as part of customizing SSSE.

This task is a step in "Process of Customizing SSSE" on page 142.

For an example of how to perform this task for a new field to be synchronized, see "Example of Changing Domain Map Configurations" on page 157.

### *To change a domain map configuration after designating a field for synchronization*

1   Navigate to Administration - PIM Server Integration, and then Domain Map.

2   In the Domain Map list, select the domain in which you created a new field.

3   In the Field Map list, use standard query techniques to discover if a record already exists for this field.

    If such a record exists, then select it and click Delete.

4   In the Field Map list, click New to create a new record for the new field, and complete the fields as shown in the following table.

| Field | Comments |
|---|---|
| Siebel Field | Enter the current name of the Siebel field to be synchronized. |
| | For example, for a newly created Siebel field called Spouse, enter Spouse. |
| PIM Field | Enter the current name of the PIM field to be synchronized. |
| | For example, the PIM field to be synchronized with the new Siebel field might also be called Spouse. |
| LOV Translation Map (Optional field) | Select the name of the translation map that associates PIM values with Siebel LOV items for the new field. Scroll down to the Translation List to see the mappings that the selected map contains. For example, the Country map associates the Siebel Value of USA with the PIM Value of United States of America. |
| Key Field (Optional field) | Select the check box to direct SSSE to use the selected field to help uniquely identify any Siebel record in the selected domain, and to match that Siebel record with a corresponding PIM record. |
| Sync Enabled | Select the check box to allow the new field to be synchronized. |

# Example of Changing Domain Map Configurations

This topic gives one example of changing domain map configuration settings as part of customizing SSSE. You may use this feature differently, depending on your business requirements.

Continuing with the example from "Example of Changing Integration Objects" on page 144, you want to map the Spouse field of a Siebel business contact record to the corresponding Spouse field of a Microsoft Outlook business contact record so SSSE can synchronize it. To accomplish this, you must change the domain map configurations as described in the following procedure.

### *To change domain map configurations*

**1** Navigate to Administration - PIM Server Integration, and then Domain Map.

**2** In the Domain Map list, select the Siebel-Exchange Business Contact Map record.

**3** In the Field Map list, click New to create a new record for the Spouse field.

**4** Specify values for the fields as shown in the following table.

| Field | Value |
|-------|-------|
| Siebel Field | Spouse |
| PIM Field | Spouse |

**5** Save your changes.

**6** Restart the Siebel Server.

The Microsoft Outlook Spouse field will now synchronize with the Siebel Business Contact Spouse field.

# About SSSE User Filtering

SSSE runs a user filtering algorithm periodically to determine which users have Siebel database records that have been changed and that need to be synchronized with Microsoft Exchange. For an implementation of SSSE that is not customized, the default user filtering configuration monitors changes in every table that is referenced by the domains and fields that are synchronized by default.

The default user filtering configuration involves 15 Siebel business components. Table 30 lists these business components and the fields and Objects associated with them. Each business component has a set of fields that record the true database update time of each row in a table or joined table. In addition, each business component has a User Id field that specifies the owner of each record in the business component.

For information on changing user filtering configurations, see "Changing User Filtering Configurations" on page 159.

Table 30.    Default SSSE User Filtering Configuration

| Business Object | Business Component | Fields Mapped to Database Last Update Time |
|---|---|---|
| PIMSI Sync Info | PIMSI Sync Info | DB_LAST_UPDATE |
| PIMSI User Filter Action | PIMSI User Filter Action | Activity Last Upd, Act Employee Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action Account | Account Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action Contact | Action Contact Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action Contact 2 | Contact Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action Contact 3 | Contact Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action Oppty | Oppty Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action Project | Project Last Upd |
| PIMSI User Filter Action | PIMSI User Filter Action SR | SR Last Upd |
| PIMSI User Filter Contact | PIMSI User Filter Contact | Contact Info Last Upd, Contact Last Upd, Party Last Upd |
| PIMSI User Filter Contact | PIMSI User Filter Contact Account | Account Last Upd |
| PIMSI User Filter Contact | PIMSI User Filter Contact Business Address | Address Last Upd |
| PIMSI User Filter Contact | PIMSI User Filter Contact Oppty | Oppty Last Upd |
| PIMSI User Filter Contact | PIMSI User Filter Contact Personal Address | Address Last Upd |
| PIMSI User Filter Contact | PIMSI User Filter Contact Position | Contact Position Last Upd |

Each time the user filtering algorithm runs, a set of queries is issued to identify the users whose records have changed since the last filtering. For example, for particular values of *last_filtering_time* and *business_component_name*, the query finds information that can be described as follows:

    All User Ids in *business_component_name* where DB_LAST_UPDATE >= *last_filtering_time*

Some business components have more than one database update time field. Separate queries are issued for each of these fields, sequentially. As a result, 18 queries are issued each time the user filtering algorithm runs. The union of query results is the set of users who have records that need to be synchronized with the Exchange Server.

# Changing User Filtering Configurations

If your customization of SSSE does not involve synchronizing fields from a new table or a new joined table, then no user filtering configuration changes are required.

If your customization of SSSE does involve synchronizing fields from a new table or a new joined table, then the application developer must make sure that the user filtering configuration is adequate for detecting data changes in any new fields that SSSE will synchronize. For more information about the user filtering process, see "About SSSE User Filtering" on page 157.

This task is a step in "Process of Customizing SSSE" on page 142.

The following procedure briefly describes how to change the user filtering configuration to detect changes made in new fields to be synchronized.

### To change the SSSE user filtering configuration

1 Make sure that the table that contains the field to be synchronized has a DB_LAST_UPD column that records the true database update time.

2 Generate a script to populate the DB_LAST_UPD column when data in the table changes.

3 Modify an existing user filtering business component or create a new user filtering business component to include the DB_LAST_UPD column.

4 Navigate to Administration - PIM Server Integration, Configuration, and then PIM Server Integration Configuration.

5 In the PIM Server Integration Configuration list, select User Filter.

6 In the Configuration Parameters list, perform one of the following actions:

■ For an existing user filtering business component, select the record where Parameter is set to the Business Component name, and add any new DB_LAST_UPD column to the Value field, using commas to separate multiple values.

■ For a new user filtering business component, click New and complete the fields in the new record, as shown in the following table:

| Field | Comments |
| --- | --- |
| Section | Enter the name of the Business Object for the new Business Component. |
| Parameter | Enter the name of the new Business Component. |
| Value | Enter DB_LAST_UPD. |

# 8 Using Siebel Server Sync

This chapter describes the common end-user tasks for using SSSE. It contains the following topics:

- "About Using SSSE" on page 161
- "Scenarios for SSSE" on page 161
- "About Using SSSE with Calendar Records" on page 162
- "About Using SSSE with To Do Records" on page 171
- "About Using SSSE with Contacts Records" on page 175
- "About Using SSSE with Employee Records" on page 181
- "Synchronization Error Messages" on page 183

## About Using SSSE

SSSE allows you to synchronize Siebel application data with files from Microsoft Exchange Server, the server for Microsoft Outlook client software. The types of data available for synchronization in the Siebel application are My Calendar, My Activities, My Contacts, My Personal Contacts, and Employees information.

The SSSE administrator defines who is able to synchronize between Microsoft Exchange and the Siebel application, and what types of data users are able to synchronize. After the administrator sets the necessary synchronization settings, the synchronization of data between the Siebel application and Microsoft Exchange is automatic.

## Scenarios for SSSE

This topic gives some examples of how SSSE may be used. You may use SSSE differently, depending on your business model.

### Scenario for Scheduling a Meeting Using the Calendar

A Siebel application user creates a new calendar appointment in Microsoft Outlook and invites three employees to this appointment using Microsoft Outlook scheduling capabilities. Upon saving the record, SSSE automatically creates the new appointment in the user's Siebel calendar. In addition, the record is written to the Microsoft Outlook calendar of the meeting invitees. One of the invitees cannot attend the meeting and deletes the meeting from his Microsoft Outlook calendar. SSSE then removes that user from the list of employees associated with this calendar record in the Siebel application.

### Scenario for Recording a Task or To Do Activity

A Siebel application user creates a new task in Microsoft Outlook. Upon saving the task, the task is written to the Siebel application server, and is visible as a to do activity record in the user's My Activities view. Later, the user changes the description of this activity in the Siebel application. Upon saving the changes, the Siebel to Outlook Connector updates the task in the user's Outlook database on the Microsoft Exchange Server.

### Scenario for Storing Personal Contact Information

A Siebel application user who has been using SSSE for some weeks creates a new contact in the My Personal Contacts view of his Siebel application, and uses the Add To Sync List command to request that the contact record be synchronized. On his next synchronization, PIMSI Engine and the Siebel to Microsoft Exchange Connector automatically write the record to the user's Contacts folder on the Microsoft Exchange Server, and assign the Category value of Siebel Contact to the record. The user can then access the contact information from Microsoft Outlook. To indicate that this is a personal contact, the contact is marked Private in the Microsoft Outlook Contacts List.

### Scenario for Storing Business Contact Information

A Siebel application user creates a My Contacts record in the Siebel application and uses the Add To Sync List command to request that the contact record be synchronized. On the next synchronization, the Siebel to Exchange Connector writes the record to the user's Microsoft Outlook Contacts List and assigns it the Category value of Siebel Contact. The user then changes the spelling of the contact's last name in Microsoft Outlook. SSSE writes the change to the Siebel application. After the record is written to the Siebel application, all SSSE users who appear on the access list have the change propagated to their Microsoft Outlook Contacts List.

### Scenario for Accessing Employee Information

A Siebel application user would like certain employees in the Siebel application to also appear in the Microsoft Outlook Contacts List. The user uses the Add To Sync List command to request that the employee records be synchronized. On the next synchronization, the Siebel to Exchange Connector writes those records to the user's Microsoft Outlook Contacts List. Each exported employee record is assigned a Category value of employee in Microsoft Outlook Contacts.

# About Using SSSE with Calendar Records

The SSSE administrator sets the synchronization level for the Calendar domain to either Full Sync, Export Only, or None. The synchronization level that the administrator sets applies to all users who have synchronization enabled. The administrator can also optionally implement one-way synchronization of calendar items from Microsoft Exchange to the Siebel application if the Full Sync option is implemented for the Siebel Calendar domain. For additional information, see "Implementing Import-Only Synchronization of Calendar Records" on page 124.

The current version of SSSE offers administrators and end users some flexibility about whether or not Exchange calendar (and task) records are synchronized with the Siebel database when the Full Sync option is selected. The features described in the following topics provide this flexibility:

■ "About Using the Opt-in Feature" on page 163

■ "About the Ignore Private Records Feature" on page 163

### About Using the Opt-in Feature

If the Full Sync option is implemented for the Calendar or To Do domains, the administrator can enable the Opt-in feature; this feature allows the user to choose which of the calendar or task records originating in Microsoft Outlook that SSSE synchronizes.

To designate a new Microsoft Outlook calendar or task record for synchronization, users must enter an appropriate value in the record's Category field; this value must match the value defined in the PIM Category Value field for the domain. The default for the required value is Siebel Calendar (calendar records) or Siebel Task (task records). You can specify more than one value for the Category field in Microsoft Outlook, provided you include the required value.

After the initial synchronization of a Microsoft Outlook calendar or task record, subsequent synchronizations are automatic.

### About the Ignore Private Records Feature

If the Full Sync option is implemented for the Calendar or To Do domains, the administrator can optionally enable the Ignore private records feature. When this feature is enabled, SSSE does not synchronize any calendar or task records originating in Microsoft Outlook that have the Private check box selected.

For more information about using SSSE with calendar records, see the following topics (the information in these topics assumes that the synchronization level for the Calendar domain is set to Full Sync):

■ "Factors That Determine Calendar Synchronization" on page 163

■ "About Activities and Calendar Records" on page 165

■ "About Creating, Modifying, or Deleting an Appointment" on page 166

■ "About Modifying Recurring Appointments" on page 166

■ "All-Day Appointments" on page 167

■ "About Adding an Attachment to an Appointment" on page 168

■ "Calendar Appointments with Multiple Attendees" on page 168

## Factors That Determine Calendar Synchronization

Assuming that the administrator has enabled synchronization for the relevant user, then whether or not a calendar record is synchronized depends on the following factors:

■ The synchronization level that the administrator sets (Full Sync, Export Only, or None).

■ Whether or not the SSSE administrator has configured the InboundCalendarOnly parameter to implement one-way synchronization of calendar items from Microsoft Exchange to the Siebel application. For information on the InboundCalendarOnly parameter, see "Implementing Import-Only Synchronization of Calendar Records" on page 124.

■ The value of the following configuration parameters, which the administrator also sets:

   ■ ExtractStartDate (in MM/DD/YYYY format)

   ■ ExtractStartDateFormat

   If a nonrepeating calendar item has a Planned Completion Date that is earlier than the value of the ExtractStartDate parameter, that item is not synchronized. If a repeating calendar item has no ending date, or an ending date that is later than the value of the ExtractStartDate parameter, then that item is synchronized.

   **NOTE:** The Extract State Date parameter applies only to initial extracts, and not to subsequent extract cycles. Therefore, after the initial extract, if a user edits a calendar record in Microsoft Outlook, it is synchronized, even if it has a completion date before the Extract Start Date.

   For information on setting the extract start date, see "Setting Initial Extract Start Dates for Users" on page 124.

■ Whether a calendar record that is created in the Siebel application has a Planned Start and Completion date (a Siebel calendar record without these dates will not synchronize with Microsoft Exchange

■ Whether a calendar record that is created in the Siebel application has Display In set to Calendar and Activities (this Display In value is required for synchronization)

■ Whether or not the Opt-in feature or the Ignore private records feature is enabled for calendar records originating in Microsoft Outlook. For information on these features, see "About Using the Opt-in Feature" on page 163 and "About the Ignore Private Records Feature" on page 163.

■ Whether the user archives his or her Exchange calendar records. The process of archiving an Exchange record, whether automatic or manual, stores the record externally and deletes the record from the active data store. SSSE treats this operation as a deletion in Microsoft Outlook, which can lead to the deletion of the corresponding Siebel record at the next synchronization unless your administrator has specified a value for the ArchiveGracePeriod parameter. For further information, see "Configuring Support for Items Archived in Microsoft Outlook" on page 102.

**Related Topic**
"About Using SSSE with Calendar Records" on page 162

# About Activities and Calendar Records

In Siebel Business Applications, task and calendar records are activity records. From the perspective of Siebel Business Applications, calendar records are a subset of activity records. Therefore, each calendar record is considered to be a type of activity record. When viewed in the Siebel application, all activity records (including records classified as calendar items) appear in the Activities view. SSSE, however, allows you to synchronize calendar records and activity task records separately. Separate treatment is necessary for Microsoft Exchange which treats calendar records and task records as distinct record types.

The value in the Display In field determines how a new Siebel activity record is synchronized with Microsoft Exchange Server. Each Siebel activity record is treated in one of three ways—it is synchronized as a calendar record, it is synchronized as a Task, or it is excluded from synchronization. Table 31 summarizes how activities created in the Siebel application are synchronized based on the value of the Display In field.

Table 31.    Synchronization of Siebel Activities Records with Microsoft Exchange Records

| Siebel Display In Value | Microsoft Exchange Record Type | Record Synchronized as |
| --- | --- | --- |
| Calendar and Activities | Calendar | Calendar |
| To Do and Activities | Task | Task |
| Activities Only | Not applicable | Not synchronized |

Similarly, when users create items in Microsoft Outlook that SSSE synchronizes with a Siebel application, SSSE automatically sets the Display In field to the appropriate value depending on the PIM record type. Table 32 summarizes how the Display In field is set when a record that was created in Microsoft Outlook is synchronized with the Siebel application.

Table 32.    Synchronization of Microsoft Exchange Records with Siebel Activities Records

| Microsoft Exchange Record Type | Siebel Display In Value | Record Synchronized as |
| --- | --- | --- |
| Task | To Do and Activities | To Do |
| Calendar | Calendar and Activities | Calendar |

When synchronization adds a Microsoft Exchange task to the Siebel application, SSSE sets the Display In field to a value of To Do and Activities. If a user subsequently changes the Siebel Display In field to Calendar and Activities, the activity appears in the Siebel calendar. During the next synchronization, SSSE deletes this item from the Exchange Task list and adds it to the Exchange calendar.

**Related Topic**

"About Using SSSE with Calendar Records" on page 162

# About Creating, Modifying, or Deleting an Appointment

You can add a new appointment, change an existing appointment, or remove an appointment in either the Siebel application or Microsoft Outlook. Synchronization is automatic except in the following instances:

■ If your administrator has enabled the Opt-in feature, you must enter a valid value in the Category field to indicate that the task is to be synchronized. For additional information, see "About Using the Opt-in Feature" on page 163.

■ If you select the Private check box for the record, and if the administrator has enabled the Ignore private records option for the Calendar domain, the record is not synchronized. For additional information, see "About the Ignore Private Records Feature" on page 163.

Automatic or manual archiving of a Microsoft Outlook appointment stores the record externally and deletes the record from the active data store. SSSE treats this operation as a deletion in Microsoft Outlook, which typically leads to the deletion of the corresponding Siebel record at the next synchronization unless your administrator has specified a value for the ArchiveGracePeriod parameter. For further information, see "Configuring Support for Items Archived in Microsoft Outlook" on page 102.

In the specific case where the Owner adds a contact attendee to an appointment in the Siebel application, or removes a contact attendee from an appointment in the Siebel application, the change is synchronized with the participant lists of the corresponding Microsoft Exchange calendar items for all sync-enabled participants.

**NOTE:** If an Owner removes a participant from a recurring appointment in Microsoft Exchange, the change is not synchronized with the Siebel application, but neither does the older Siebel data overwrite the change in Microsoft Exchange. If the Owner changes appointment header information (such as Start Date, End Date, and Description) in Exchange, these header changes are synchronized with the Siebel application.

**Related Topic**
"About Using SSSE with Calendar Records" on page 162

# About Modifying Recurring Appointments

The Siebel application does not support the same recurrence options as Microsoft Outlook. For example, the Siebel application does not support appointments that occur every other week. The Siebel application supports only a Meeting Repeat frequency of every day, week, month, quarter, and year.

If you set a recurrence that is not supported by the Siebel application, then, when the appointment is synchronized, SSSE creates individual read-only appointments in the Siebel application to represent individual instances of a recurring appointment. However, there is a limit to the number of individual read-only appointments that can be created by synchronizing an unsupported recurrence pattern. This limit is determined by the value of the Max Recurring Instances setting for the Siebel Calendar domain, unless your administrator has configured additional appointment instances for recurring appointments. For additional information on configuring recurring appointments, see "Configuring Recurring Appointments" on page 103.

If you modify a particular instance of a recurring appointment in Microsoft Outlook, you cannot modify that appointment in the Siebel application after it is synchronized. However, you can continue to modify the appointment in Microsoft Outlook. If you modify all instances of a recurring appointment in Microsoft Outlook, then you can continue to modify the appointment in either Microsoft Outlook or the Siebel application.

**Related Topic**

# All-Day Appointments

The Siebel calendar does not have a field corresponding to the All Day Event check box in Microsoft Outlook. To allow synchronization of Microsoft Outlook All Day appointments, SSSE uses the following conventions:

■ When SSSE synchronizes an appointment from Microsoft Outlook with the Siebel calendar, SSSE checks starting and ending dates and times and Microsoft Outlook time zone settings to determine whether or not it is an all day appointment. If so, SSSE records the event as having a starting date and time and an ending date and time that correspond to the values that are displayed in the Microsoft Outlook Active Appointments view. The end date that Microsoft Outlook displays in the Active Appointments view is one day greater than the end date that Microsoft Outlook displays in an open appointment window with the All day event check box selected. If the Siebel application and Microsoft Outlook display the same time zone, then both applications show a start time of 12:00 AM and an end time 12:00 AM for an all day appointment. If the two applications display different time zones, then the Siebel application shows different start and end time values based on the time zone configured for the Siebel user. For example, an all day appointment might show starting and ending times of 3:00 AM instead of 12:00 AM, if the Siebel application were using a time zone 3 hours away from the time zone used by Microsoft Outlook.

■ An appointment that originates in a Siebel application displays as a Microsoft Outlook All Day Event after synchronization only if all of the following conditions are met:

  ■ The Siebel appointment must have a start date and time and an end date and time that span exactly one or more 24 hour periods. For example, start date-time is 12:00 AM Jan. 1, 2009 and end date-time is 12:00 AM Jan. 3, 2009.

  ■ The end date must be greater than the start date. An end date that is the same as the start date does not display in Microsoft Outlook as an All Day Event because it spans less than a 24 hour period. An All Day Event must span at least one 24 hour period.

  ■ The start and end time values that appear in the Microsoft Outlook Active Appointments view must both be 12:00 AM. The display values for the Microsoft Outlook appointment date and time fields are dependant on the time zone configured for Microsoft Outlook. Therefore, the start and end time values may display as 12:00 AM in one time zone but other time values in other time zones. If Microsoft Outlook and the Siebel application are both configured to the same time zone then 12:00 AM start and end times in one application display as 12:00 AM start and end times in the other.

■ A single All Day Event appointment can extend over one or more days whether it originated in a Siebel application or in Microsoft Outlook.

**Related Topic**

# About Adding an Attachment to an Appointment

If you add an attachment to a Microsoft Outlook calendar appointment, the attachment is not synchronized with the Siebel application because SSSE does not currently support synchronization of calendar attachments.

The attachment remains attached to your Microsoft Outlook appointment even if you change appointment details in the Siebel application and resynchronize with Microsoft Outlook.

**Related Topic**

# Calendar Appointments with Multiple Attendees

The following paragraphs describe how SSSE handles calendar appointments that have multiple Attendees in Microsoft Exchange or multiple Participants in the Siebel application.

## Calendar Items Created in Siebel Business Applications

If an SSSE user who is enabled for synchronization creates a calendar item in a Siebel application, that user is listed in the Owner field of the Calendar Detail form for the item.

If the calendar item has multiple participants, all the participants who are employees are listed in the Employees field in the Calendar Detail form.

If any participants are contacts, rather than employees, they are listed in the Contacts field in the Calendar Detail form.

Employee participants can view the original calendar item in their Siebel calendars.

## Calendar Items in Siebel Business Applications Synchronized with Microsoft Exchange

When SSSE synchronizes a calendar record that was created in a Siebel application with Microsoft Exchange, SSSE maps the value of the Siebel Owner field to the Exchange Organizer field.

SSSE maps the values listed as Employees and Contacts in the Siebel Calendar Detail Form to Exchange Attendees.

**NOTE:** Only the employees and contacts who have email addresses are synchronized with Microsoft Exchange as attendees for the appointment.

SSSE writes the Siebel calendar appointment directly to the Exchange calendar folders of the sync-enabled participants.

## Special Handling When Siebel Owner Is Not Enabled to Use SSSE

If a Siebel user, who does not have SSSE synchronization enabled, creates a Siebel calendar item that includes SSSE-enabled participants, the following facts are true:

■ The Siebel calendar item is synchronized with Microsoft Exchange for all Siebel employee participants who have synchronization enabled. If the owner modifies the item in the Siebel application, the changes are synchronized for these same participants.

■ The Siebel calendar item is not synchronized with Microsoft Exchange for nonemployee contacts, because synchronization cannot be enabled for contacts.

■ Provided that email addresses are correctly configured, the Owner for the Siebel calendar item is synchronized to be the Exchange Organizer for the sync-enabled participants' Exchange calendar items, even if the Siebel Owner does not have synchronization enabled.

■ If any sync-enabled attendee modifies the calendar item in Microsoft Exchange (for example, to change the Start Date or Subject), the change is synchronized with the Siebel application, where it is visible to all Siebel participants, including the item Owner.

## Calendar Items Created in Microsoft Exchange

If an SSSE user who is enabled for synchronization creates a calendar appointment in Microsoft Outlook, that user is listed in Microsoft Outlook as the Organizer of the appointment.

Additional participants are listed as Required Attendees or Optional Attendees, regardless of whether the attendees are employees or contacts.

A copy of the original calendar appointment is stored for each attendee who is using Microsoft Exchange client software. From this point on, any attendee can modify his or her own copy of the appointment. The attendee can choose whether or not to notify other attendees (including the organizer) of the change to his or her copy of the appointment.

If other attendees are notified of a change to a calendar item, the notifications provide information about the change that one attendee has made, but the notification has no effect on the data stored in other attendees' copies of the appointment.

## Calendar Items in Microsoft Exchange Synchronized with Siebel Business Applications

When SSSE synchronizes a calendar appointment that was created in Microsoft Outlook with a Siebel application, a corresponding Siebel calendar item is created as soon as SSSE synchronizes any SSSE-enabled participant for the appointment.

At synchronization, the value of the Exchange Organizer field is mapped to the value of the Siebel Owner field, provided that the Organizer has a corresponding employee record in the Siebel application.

The values listed as Exchange Attendees are mapped to the Employees or Contacts fields in the Siebel Calendar Detail form, depending on whether or not each Attendee's Microsoft Exchange email address matches the email address for a Siebel employee record.

**NOTE:** Exchange Attendees must be specified on the Scheduling tab of the Microsoft Outlook calendar item. SSSE does not support entering attendees using the Contacts field on the Appointment tab of the calendar item.

Employee participants can view the calendar item in their Siebel calendars. The calendar appointment is created regardless of each participant's Accept/Decline status.

Provided that the Organizer is sync-enabled, the data that appears in the Siebel calendar item is updated if the Organizer modifies the appointment in Microsoft Exchange, and subsequent synchronizations propagate the modifications to the Attendees' copies of the appointment in Microsoft Exchange. If Attendees other than the Organizer modify their copies of the appointment in Microsoft Exchange, those modifications are not synchronized with the Siebel application.

If any Attendee modifies the Siebel calendar item, subsequent synchronizations propagate the modifications to Attendees' copies of the appointment in Microsoft Exchange.

## Special Handling When the Exchange Organizer Is Not Mapped or Enabled to Use SSSE

If the Organizer who creates an Exchange calendar appointment in Microsoft Outlook is not enabled to use SSSE, and is not an employee recognized by the Siebel application, then SSSE uses the value of the Generic Siebel Organizer setting as the Organizer when synchronizing the appointment in the Siebel application. If, additionally, the administrator has not configured a value for the Generic Siebel Organizer setting, then SSSE does not synchronize the calendar appointment. For more information about the Generic Siebel Owner setting, see "Configuring the Generic Siebel Organizer" on page 75.

**NOTE:** If the Organizer who creates an Exchange calendar appointment in Microsoft Outlook is not enabled to use SSSE, then Siebel users cannot use their Siebel calendars to update the Siebel calendar item that is produced by synchronization of the appointment. Users are also unable to update the item in Microsoft Exchange; only the meeting organizer can do that.

## Special Handling When an Exchange Attendee Is Not Enabled to Use SSSE

As long as at least one Microsoft Exchange participant is enabled to use SSSE, the calendar item is synchronized with the Siebel calendars of all valid employee attendees, even if some of those attendees do not have synchronization enabled.

Similarly, valid employee attendees are listed in the Employee field of the Calendar Detail form for the item.

A contact who is an Attendee for an Exchange calendar appointment is listed in the Contacts field of the Calendar Detail form for the synchronized item, provided that SSSE finds the contact already listed in the Siebel database. An unknown contact attendee is not listed in the Contacts field of the Calendar Detail form.

**NOTE:** If an Exchange calendar appointment has any Attendees who are not enabled to use SSSE, whether those users are Siebel Users or contacts, then the Siebel user interface treats the record as read-only. The Organizer must make any updates to the item in Microsoft Exchange, and then SSSE must synchronize the changes in the Siebel application.

### Special Handling When an Exchange Attendee Deletes or Declines an Exchange Meeting

The results of deleting or declining a Microsoft Exchange meeting depend on whether or not the attendee has SSSE synchronization enabled:

■ If the attendee has synchronization enabled, declining or deleting a Microsoft Exchange meeting causes SSSE to remove that attendee from the Siebel calendar item.

■ If the attendee does not have synchronization enabled, declining or deleting an Exchange meeting does not cause any change in the Siebel calendar item's list of attendees, regardless of whether the change in Microsoft Exchange is made in the attendee's folder or in the Organizer's folder.

For additional information on how SSSE tracks appointment attendees, see the description of the AddAttendee parameter in "Tuning SSSE Siebel Profile Parameters" on page 77.

**Related Topic**
"About Using SSSE with Calendar Records" on page 162

# About Using SSSE with To Do Records

Siebel to do activities are called tasks in Microsoft Outlook. The SSSE administrator sets To Do synchronization levels to either Full Sync, Export Only, or None. The synchronization level that the administrator sets applies to all users who have synchronization enabled.

The current version of SSSE offers administrators and end users some flexibility about whether or not Exchange task records are synchronized with the Siebel database when the Full Sync option is selected. The following features provide this flexibility:

■ "About Using the Opt-in Feature" on page 163

■ "About the Ignore Private Records Feature" on page 163

If the administrator does not implement the Opt-in feature or the Ignore private records feature, once SSSE initiates synchronization for any user, all task record synchronization for that user is automatic. No user action is required, and all of that user's task records are synchronized.

For more information about using SSSE with to do records, see:

■ "Factors That Determine To Do Record Synchronization" on page 172

■ "About Creating, Modifying, or Deleting a To Do Record" on page 172

■ "About Creating or Modifying a Recurring To Do Record" on page 173

■ "About Adding an Attachment to a To Do Record" on page 173

■ "Assigning To Do Activities to Other Users" on page 173

■ "How Priorities Are Set for a To Do Record" on page 174

■ "How Status Values Are Set for a To Do Record" on page 174

■ "To Do Activity Alarms" on page 175

The information in these topics assumes that To Do synchronization is set to Full Sync.

## Factors That Determine To Do Record Synchronization

The following factors determine whether or not a to do record is synchronized:

■ The synchronization level that the administrator sets (Full Sync, Export Only, or None).

■ The value of the following configuration parameters, which the administrator also sets:

  ■ ExtractStartDate (in MM/DD/YYYY format)

  ■ ExtractStartDateFormat

  If a to do item has a Due date that is earlier than the value of the ExtractStartDate parameter, that item is not synchronized.

  For additional information on setting the extract start date, see "Setting Initial Extract Start Dates for Users" on page 124.

■ Whether or not the administrator has enabled the Full Sync Opt-in feature or the Ignore private records feature for Microsoft Outlook task records. For information on these features, see "About Using the Opt-in Feature" on page 163 and "About the Ignore Private Records Feature" on page 163.

■ The value of the Display In field for each individual to do record. (SSSE synchronizes to do records for which the value of the Display In field is To Do and Activities.)

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## About Creating, Modifying, or Deleting a To Do Record

You can add a new to do activity, change an existing to do activity, or remove a to do activity in either the Siebel application or in Microsoft Outlook. Synchronization is automatic except in the following instances:

■ If your administrator has enabled the Opt-in feature, you must enter a valid value in the Category field to indicate that the task is to be synchronized. For additional information, see "About Using the Opt-in Feature" on page 163.

■ If you select the Private check box for the record, and if the administrator has enabled the Ignore private records option for the To Do domain, the record is not synchronized. For additional information, see "About the Ignore Private Records Feature" on page 163.

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## About Creating or Modifying a Recurring To Do Record

The Siebel application does not support recurring to do activities, but Microsoft Outlook does. If you set an activity (task) recurrence in Microsoft Outlook, when the task is synchronized, a single one-time to do activity record is created in the Siebel application.

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## About Adding an Attachment to a To Do Record

It is possible to add attachments to both Microsoft Outlook task items and Siebel to do activity items. However, when SSSE synchronizes these items, the attachments are not synchronized.

By default, the current version of SSSE preserves both Microsoft Outlook and Siebel attachments during synchronization. That is, if a Microsoft Outlook task item has attachments, and the corresponding Siebel to do record is updated, the next synchronization will update the Microsoft Outlook task without affecting the attachment. Similarly, if a Siebel to do record has attachments, and the corresponding Microsoft Outlook task item is updated, the next synchronization will update the Siebel to do record without affecting the attachment.

An administrator can configure SSSE to discard Microsoft Outlook attachments when a noncalendar Microsoft Outlook item is updated. For information about this configuration option, see "Configuring Exchange Connector Parameters" on page 84.

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## Assigning To Do Activities to Other Users

You can assign activities to other users in either the Siebel application or in Microsoft Outlook. During synchronization, SSSE makes the appropriate changes in the Siebel application or Microsoft Exchange Server.

In Microsoft Outlook, you assign a task by clicking Assign Task and then filling in the To field. If you select the Keep an updated copy of this task on my task list check box, then the task appears on both your own and the assignee's task list.

In the Siebel application, you assign a task by changing the Owner to another person. If you change the owner of an activity in the Siebel application, the activity appears in your My Delegated Activities view and the assignee's My Activities view.

If you assign a task to more than one person in Microsoft Outlook, when synchronized, SSSE creates multiple to do activities in the Siebel application because Siebel Business Applications do not support more than one owner for each task.

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## How Priorities Are Set for a To Do Record

Table 33 indicates how a to do activity's Priority is set when synchronized between the Siebel application and Microsoft Exchange Server.

The values in Table 33 are default values. For information on changing these values, see "Creating Field Mappings" on page 115.

Table 33.    Priority Synchronization

| Siebel Priority Value | Exchange Priority Value |
|---|---|
| 1-ASAP | High |
| 2-High | High |
| 3-Medium | Normal |
| 4-Low | Low |

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## How Status Values Are Set for a To Do Record

Table 34 indicates how a to do activity's status is set when synchronized between the Siebel application and the Microsoft Exchange Server.

Table 34.    Status Synchronization

| Siebel Status Value | Exchange Status Value |
|---|---|
| Acknowledged | 0 |
| Not Started | 0 |
| In Progress | 1 |

Table 34.    Status Synchronization

| Siebel Status Value | Exchange Status Value |
| --- | --- |
| Done | 2 |
| On Hold | 3 |
| Cancelled | 4 |
| Declined | 4 |

**Related Topic**
"About Using SSSE with To Do Records" on page 171

## To Do Activity Alarms

Microsoft Outlook lets you set a task Reminder that displays a reminder at a time that you set. Siebel Business Applications let you set an Alarm flag that displays a reminder at the time the to do activity is due.

If you set a task Reminder in Microsoft Outlook, when synchronized, the Alarm flag is set on the to do activity in the Siebel application. If the Alarm flag is set in the Siebel application, when synchronized, a Reminder is set on the task in Microsoft Exchange Server. The reminder is set to the time the activity is due.

**Related Topic**
"About Using SSSE with To Do Records" on page 171

# About Using SSSE with Contacts Records

The SSSE administrator sets the synchronization level for contact records to either Full Sync, Export Only, or None. The SSSE administrator sets personal contacts and business contacts synchronization levels independently. Users can change personal contacts to business contacts in either the Siebel application or Microsoft Outlook, but users can only change business contacts to personal contacts in Microsoft Outlook.

Contacts are synchronized only if the user uses the Add To Sync List command to request that the contact record be synchronized. The Add To Sync List command adds the current user to the Sync List MVG field for the selected record. For business contacts, if Visibility is set to Sales Rep, contact records to be synchronized must also be visible in the user's My Contacts list.

For successful synchronization of business contact records that have either Account information or Business Address information, when you are synchronizing from Microsoft Exchange to a Siebel application, the contact information must include both an Account Name and an Account Location.

If a SSSE user has multiple positions in the Siebel application, contacts are synchronized with the user's primary position.

If a new account is added to a business contact in Microsoft Outlook, that account is made the primary Account for that contact when the record is synchronized with the Siebel application. Any accounts previously associated with that contact remain associated but are not primary.

If a new business address is added to a business contact record in Microsoft Outlook, that business address is made the primary business address for that contact when the record is synchronized with the Siebel application. Any business addresses previously associated with that contact remain associated but are not primary.

If a new personal address is added to a business contact record in Microsoft Outlook, that personal address is made the primary personal address for that contact when the record is synchronized with the Siebel application. Any personal addresses previously associated with that contact remain associated but are not primary.

**NOTE:** SSSE does not support the synchronization of Microsoft Outlook or Microsoft Exchange Server distribution lists. SSSE can synchronize only individual contacts.

For more information about using SSSE with contacts records, see the following topics. These topics are applicable to both the My Contacts and My Personal Contacts views, and assume that the Contacts domain synchronization is set to Full Sync.

- "Designating Contact Records for Synchronization" on page 176

- "Ending Synchronization of Contact Records" on page 177

- "About Creating, Modifying, or Deleting a Contact" on page 177

- "About Adding an Attachment to a Contact" on page 178

- "Creating a Personal Contact" on page 179

- "About Account-to-Contact Relationships" on page 179

- "Contact Access" on page 180

- "About Changing Contact Domains" on page 180

## Designating Contact Records for Synchronization

Contacts (both personal and business) in the Siebel application are synchronized with Microsoft Exchange Server only if your user name appears in the Sync List MVG field for the individual contact records. The following procedure describes how to designate a contact record for synchronization in this way.

### To designate a contact record for synchronization

1   Navigate to Contacts, and then Contacts List or Personal Contacts List.

2   In the My Contacts or My Personal Contacts list, select one or more records.

3   In the My Contacts or My Personal Contacts list, click Menu, and then choose Add To Sync List.

**Related Topics**

# Ending Synchronization of Contact Records

The following procedure describes how to stop synchronizing one or more contact records that you have previously synchronized.

### To stop synchronizing selected contacts records

**1**  Navigate to Contacts, and then Contacts List or Personal Contacts List.

**2**  In the My Contacts or My Personal Contacts list, select a contact record that you no longer want to synchronize with Microsoft Exchange.

**3**  Click Menu, and then choose Remove from Sync List.

   **NOTE:** When you choose Remove from Sync List, you remove yourself from the Sync List for the selected contact record. On your next synchronization, SSSE removes the corresponding contact record from your Microsoft Exchange mailbox.

**Related Topics**

# About Creating, Modifying, or Deleting a Contact

You can add a new contact, modify an existing contact, or delete a contact in either the Siebel application or in Microsoft Outlook.

If you add a new contact in the Siebel application, you must also add yourself to the contact record's Sync List in order for the contact record to be synchronized with Microsoft Exchange. For information about adding yourself to a contact record's Sync List, see "Designating Contact Records for Synchronization" on page 176.

If you add a new contact in Microsoft Outlook, you must place an appropriate value in the Category field in order for the contact record to be synchronized with the Siebel application. One value in the Category field for the contact in Microsoft Outlook must match the value defined in the PIM Category Value field for the contact domain. (You can specify more than one value for the Category, as long as you include the required value.) The default for the required value is Siebel Contact.

After the initial synchronization of a contact record, subsequent synchronizations are automatic.

**NOTE:** Employee contacts in Microsoft Outlook are a special case. See "About Synchronizing Employees" on page 181.

If you delete a business contact in Microsoft Outlook, synchronization removes you from the Sync List for the corresponding Siebel contact record, but the contact record itself continues to exist in the Siebel database.

If you delete a personal contact in Microsoft Outlook, synchronization deletes the corresponding Siebel personal contact record from the Siebel database.

If any Siebel user is removed from the Sync List of a business contact record or personal contact record in the Siebel application, synchronization deletes that user's corresponding contact record in Microsoft Outlook.

If multiple sync-enabled Siebel users are added to the Sync List of a contact record in the Siebel application, then SSSE synchronizes the contact record with the Microsoft Exchange mailboxes of all the users who are on the Sync List.

If the Allow MVG Creation check box is not selected for a particular user in the User Level Access Control list, and if the administrator has set default values for the Account, Personal Address, and Business Address fields in the Siebel Domains, then if a new address or account is added to one of the user's contact records in Microsoft Outlook, SSSE uses the administrator-supplied default value when the record is synchronized with the Siebel application.

**Related Topic**
"About Using SSSE with Contacts Records" on page 175

# About Adding an Attachment to a Contact

You can add attachments to contact records in both Microsoft Outlook and the Siebel application. However, when the contact record is synchronized, attachments are not synchronized.

By default, the current version of SSSE preserves both Microsoft Outlook and Siebel attachments during synchronization. That is, if a Microsoft Outlook contact record has attachments, and the corresponding Siebel record is updated, the next synchronization will update the Microsoft Outlook contact without affecting the attachment. Similarly, if a Siebel contact record has attachments, and the corresponding Microsoft Outlook item is updated, the next synchronization will update the Siebel record without affecting the attachment.

An administrator can configure SSSE to discard Microsoft Outlook attachments when a noncalendar Microsoft Outlook item is updated. For information about this configuration option, see "Configuring Exchange Connector Parameters" on page 84.

**Related Topic**
"About Using SSSE with Contacts Records" on page 175

## Creating a Personal Contact

In Microsoft Outlook, the Private check box determines if a contact is a personal contact. If the Private check box is selected, then the contact is considered a personal contact and appears in the My Personal Contacts view in the Siebel application. If the Private check box is not selected, the contact is considered a business contact and appears in the My Contacts view in the Siebel application.

The following procedure describes how to create a personal contact in Microsoft Outlook.

### To create a personal contact in Microsoft Outlook

1  In Microsoft Outlook, open or create a contact record.

2  Select the Private check box.

3  In the Category field, enter the value that matches the PIM Category Value setting for the Siebel Personal Contacts domain.

   You can specify more than one Category, as long as you include the required value.

**Related Topic**
"About Using SSSE with Contacts Records" on page 175

## About Account-to-Contact Relationships

In a Siebel application, a contact can have multiple associated accounts, but in Microsoft Outlook this is not the case. When synchronizing contact information, only the primary account in the Siebel application is exported or synchronized with Microsoft Exchange Server.

If a new account is added to a business contact record in Microsoft Outlook, that account is made the primary account for that contact when it is synchronized with the Siebel application. Any accounts previously associated with that contact remain associated but are not primary.

If you have installed the Siebel Outlook Add-In, it is recommended that you use it to link Microsoft Outlook business contact records to Siebel accounts. This ensures that the Microsoft Outlook contact record is linked to a valid Siebel account.

**CAUTION:** Do not delete the association between an account and a contact in Microsoft Outlook. Delete the association in the Siebel application. The limitation is due to the fact that when you delete the association in Microsoft Outlook, the delete operation causes the next account in line to become the primary account for the contact.

Consider a case where a contact C1 is associated with 10 accounts A1…A10 with A1 being the primary. When this contact is synchronized with Microsoft Exchange, the account A1 becomes the value for the Company field for the contact in Microsoft Outlook.

If the user clears the Company field in Microsoft Outlook, then during the next synchronization cycle, the following occurs:

■ The Company field in Microsoft Outlook is populated with the default account name specified for Siebel business contacts.

   For additional information on setting default account values, see "Configuring the Default Account" on page 76.

■ In the Siebel application, Contact C1 is associated with 11 Accounts (A1…A10 and the default account). Account A1 is still associated with Contact C1 but the default account is now the Primary Account.

**Related Topic**
"About Using SSSE with Contacts Records" on page 175

## Contact Access

For a business contact in the Siebel application to be accessible to SSSE, the user who is synchronizing must be on the contact record's Sync List.

**Related Topic**
"About Using SSSE with Contacts Records" on page 175

## About Changing Contact Domains

You can change a personal contact to a business contact in either the Siebel application or Microsoft Outlook, by clearing the Private check box for the record. After you make this change, the record disappears from your Siebel Personal Contacts List and appears in your Siebel Contacts List. (A personal contact record is deleted and a business contact record is created.) If you make the change in the Siebel application, synchronization automatically clears the Private check box in Microsoft Outlook.

However, you can only change a business contact to a personal contact in Microsoft Outlook, by selecting the Private check box. After you make this change, the next synchronization removes you from the Sync List for the corresponding record in the Siebel Contacts List, and a new record appears in your Siebel Personal Contacts List.

**NOTE:** It is not possible to select a Private check box for a business contact record in the Siebel application.

**Related Topic**
"About Using SSSE with Contacts Records" on page 175

# About Using SSSE with Employee Records

Employees in the Siebel application are contacts in Microsoft Outlook. SSSE distinguishes employees from other contacts in Microsoft Exchange Server by the use of an appropriate Category value. The default Category value for indicating an employee is Employee.

The SSSE administrator sets Employee synchronization levels to either Export Only or None. Employee records are synchronized only if the user designates them for synchronization by using the Add To Sync List command. The Add To Sync List command adds the current user to the Sync List MVG field for the selected record.

**NOTE:** SSSE does not support the synchronization of Microsoft Outlook or Microsoft Exchange Server distribution lists. SSSE can synchronize only individual contacts and employees.

For more information about Using SSSE with employee records, see:

- "About Synchronizing Employees" on page 181
- "Designating Employee Records for Synchronization" on page 181
- "Ending Synchronization of Employee Records" on page 182
- "About Creating or Modifying an Employee" on page 182
- "About Deleting an Employee" on page 183

## About Synchronizing Employees

Bidirectional synchronization is not supported for the Employee domain because its use could allow end users to create unauthorized employee records in Microsoft Outlook, and those records would be synchronized with the Siebel database for the enterprise, causing data corruption. The synchronization level for employees must be set to the default value of Export Only.

If Employee synchronization is set to Export Only, an employee's data is exported from the Siebel application to Microsoft Exchange at the time that you designate the employee record for synchronization. For information about how to do this, see "Designating Employee Records for Synchronization" on page 181. As long as the employee remains on your Sync List, SSSE automatically exports employee record changes from the Siebel application to Microsoft Exchange.

**Related Topics**
"Setting Siebel Domain-Level Synchronization" on page 111
"About Using SSSE with Employee Records" on page 181

## Designating Employee Records for Synchronization

Employee records in the Siebel application are exported to you Microsoft Exchange mailbox only if your user name appears in the Sync List MVG field for the individual employee records. The following procedure describes how to designate an employee record for synchronization in this way.

### To designate an employee record for synchronization

**1** Navigate to Employees.

**2** In the Employees List, select a record.

**3** In the Employees List, click Menu, and then choose Add To Sync List.

**Related Topic**

"About Using SSSE with Employee Records" on page 181

# Ending Synchronization of Employee Records

The following procedure describes how to stop synchronizing one or more employee records that you have previously synchronized.

### To stop synchronizing selected employee records

**1** Navigate to Employees, and then Employees List.

**2** In the All Employees list, select a record for an employee that you have previously synchronized but no longer want to synchronize.

**3** In the All Employees list, click Menu, and then choose Remove from Sync List.

NOTE: When you choose Remove from Sync List for an employee record, or when you clear the Sync field check box (which has the same effect), you remove yourself from the Sync List for the selected employee record. On your next synchronization, SSSE removes the corresponding contact record from your Microsoft Exchange mailbox.

**Related Topic**

"About Using SSSE with Employee Records" on page 181

"About Synchronizing Employees" on page 181

# About Creating or Modifying an Employee

Because the synchronization level for employees is Export Only, you must add or modify employees in the Siebel application. Do not add or modify employees in Microsoft Outlook. After adding an employee in the Siebel application, be sure to designate the record for synchronization, as described in "Designating Employee Records for Synchronization" on page 181.

**Related Topic**

"About Using SSSE with Employee Records" on page 181

## About Deleting an Employee

Because the synchronization level for employees is Export Only, if you delete an employee in Microsoft Outlook only, the employee record reappears in Microsoft Outlook the next time employee records are exported from the Siebel application.

To remove an employee from the Microsoft Outlook contact list, do not delete the employee record in the Siebel application. Instead, users must remove their names from the Sync List for that employee.

**Related Topic**
"About Using SSSE with Employee Records" on page 181

# Synchronization Error Messages

When SSSE synchronizes a particular user's data, the synchronization can succeed completely, succeed partially, or fail completely. This topic lists some of the validation error messages that indicate partially successful synchronization. These error messages, shown in Table 35 on page 184, generally indicate a problem with an individual record—other records for the same user might synchronize successfully.

When a validation (or other record-level) synchronization error occurs, whether or not the user's sync state for a session is saved depends on how the administrator has configured the Always Save Syncstate parameter. For additional information, see "Skipping Records That Generate Synchronization Errors" on page 132.

Your administrator can configure SSSE so that the administrator is notified by email when a synchronization error is generated. For further information on configuring email notification of synchronization errors, see "Process of Configuring Email Notification of Synchronization Errors" on page 133.

**NOTE:** Validation errors are not generated for outbound (Siebel application to Microsoft Outlook) synchronization attempts. If an error occurs in a record during an outbound synchronization attempt, it indicates a serious error has occurred, for example, the Microsoft Exchange Server is not responding. In these cases, the user's sync state is not saved.

Table 35 contains a listing of some of the error messages that indicate partially successful synchronization.

Table 35.    Synchronization Error Messages

| Logged Message | Error Code | Cause and Result of Error |
|---|---|---|
| Failed to process the unresolved attendees for Siebel Row: *row_ID*, Siebel Domain: *domain_name*. | None | SSSE cannot save the unresolvable attendees for the appointment in the row indicated. SSSE does not synchronize the record that had the error, but continues synchronizing the user's other records. SSSE also saves the attendee data in a special table, so that if the Siebel record changes and is synchronized with Microsoft Exchange, the Microsoft Exchange record retains the unresolved attendees. |
| One or more records with the same key already exists. | IDS_ERR_EAI_SA_MULTIPLE_ MATCH<br><br>IDS_ERR_EAI_SA_DUP_ CONFLICT<br><br>SSASqlErrDupConflict2<br><br>SSASqlErrDupConflict | SSSE found a duplicate record in the Siebel database. SSSE does not synchronize the record that had the error, but continues synchronizing the user's other records. |
| One or more required fields of this record are empty. | IDS_ERR_EAI_SA_MISSING_ REQ_FIELD<br><br>IDS_WRN_EAI_SA_DML<br><br>SSASqlErrReqField | One of the required fields for this record is empty and there was no default configured. SSSE does not synchronize the record that had the error, but continues synchronizing the user's other records. |
| This record cannot be deleted because it does not exist. | IDS_ERR_EAI_SA_BC_NO_ DATA<br><br>SSASqlErrRecordDeleted | SSSE cannot delete a record because it is not in the Siebel database (it was probably deleted earlier). |
| Value entered for one or more fields of this record is not compatible with its declared Data Type. | SSASqlErrValidation | The value for one of the fields in this record is not of the correct data type for the field. SSSE does not synchronize the record that had the error, but continues synchronizing the user's other records. |
| Number of characters entered for one or more fields of this record exceeds the declared Data Length. | SSAOMErrDataTooLong<br><br>SSASqlErrBindVarOverflow1 | A text field for this record has more characters than the corresponding Siebel database field can handle. SSSE does not synchronize the record that had the error, but continues synchronizing the user's other records. |

Table 35.   Synchronization Error Messages

| Logged Message | Error Code | Cause and Result of Error |
|---|---|---|
| One or more fields of this record has characters that are not compatible with this DB Code Page. | SSASqlErrUnicodeToCodePage<br><br>SSASqlErrUnicodeConversion | At least one of the fields in this record is not compatible with the code page database. This condition typically affects multiple users. SSSE does not synchronize the record that had the error, but continues attempting to synchronize the user's other records. You may be able to correct this condition by inspecting the indicated record and changing any special characters to standard characters. |
| Alarm flag is checked for past appointment. | SSAOMErrAlarmTriggerTime Passed | The appointment being synchronized is scheduled in the past and has an alarm flag checked in the PIM record. SSSE synchronizes the record but does not synchronize the outdated alarm flag. No user or administrator action is required. |
| One or more picklist fields of this record have a value that is not part of the bounded picklist of values. | SSAOMErrBoundedPick<br><br>IDS_ERR_EAI_SA_PICK_<br>VALIDATE | A value that SSSE is trying to use for a picklist field is not available in the picklist for the field. SSSE does not synchronize the record that had the error, but continues synchronizing the user's other records. |

# 9 Setting Up and Using Siebel Outlook Add-In

This chapter describes how to set up and use the Siebel Outlook Add-In deployment option for SSSE. The chapter includes the following topics:

## About Siebel Outlook Add-In

The Siebel Outlook Add-In lets users link to Siebel records from Microsoft Outlook calendar appointments, contacts, and tasks using controls in the Microsoft Outlook interface.

The Siebel Outlook Add-In adds the following controls to the Calendar, Contacts, and Tasks views of the user's Microsoft Outlook interface:

- Siebel Options menu

  The Siebel Options menu allows you to link a selected Microsoft Outlook item to a record in the Siebel application, to remove existing links, or to access recently created links.

- Siebel toolbar

  The Siebel toolbar allows you to link the selected Microsoft Outlook item to a record in the Siebel application or to use an existing link to go to a record in the Siebel application.

- Right-click menu items

  The Siebel right-click menu allows you to link the selected Microsoft Outlook item to a record in the Siebel application or to remove existing links.

- Siebel tab in Options dialog box

  The Siebel tab in the Options dialog box allows you to setup communication settings in your Siebel application.

Using these controls a user can link Siebel records to Microsoft Outlook calendar, contacts, or task records. After a user links a Siebel record to a Microsoft Outlook record, the user can use the link to navigate from Microsoft Outlook directly to the linked record in the Siebel application. The Microsoft Outlook object you have linked is also synchronized with the Siebel application during the next synchronization cycle. For example, if a user creates a calendar appointment in Microsoft Outlook and then links that appointment to a relevant Opportunity in the Siebel application, the user can navigate from Microsoft Outlook directly to the Siebel opportunity and, after the next synchronization cycle, the Microsoft Outlook calendar appointment is associated with the Siebel opportunity record as a Siebel opportunity activity.

Siebel Outlook Add-In uses the same permissions as PIMSI Engine for allowing specific users to synchronize calendar, contact, and task data. For more information about setting permissions, see "Process of Setting SSSE Group and User Access Controls" on page 117.

**Related Topic**
"About Using Siebel Outlook Add-In" on page 210

# System Requirements for Siebel Outlook Add-In

Deployment of Siebel Outlook Add-In requires the following:

■ You must install the PIMSI Engine before you deploy Siebel Outlook Add-In to ensure that when you associate a Microsoft Outlook object with a Siebel object, the Microsoft Outlook object is synchronized with the Siebel object. For information about PIMSI Engine, see "SSSE Deployment Options" on page 18.

■ You must install a supported version of Microsoft Outlook on the computer of each user who uses Siebel Outlook Add-In. For information about supported versions, see *System Requirements and Supported Platforms* on Oracle Technology Network.

# Process of Setting Up Siebel Outlook Add-In

Setting up Siebel Outlook Add-In consists of the following tasks, which you must complete in the order shown. The system administrator performs the first task on the Siebel Enterprise Server and the second task using Siebel Tools. The third task is required only if your implementation modifies the information that Outlook Add-In makes available. An administrator can perform it wherever there is access to your Siebel application and Enterprise database. Either the administrator or the end user perform the remaining three tasks on the end user's computer.

To deploy the Siebel Outlook Add-In, complete the following tasks:

1 "Setting Enterprise Server Parameters and Enabling Web Client Automation for Outlook Add-In" on page 189

2 "(Optional) Setting the Bucket Size User Property for Siebel Outlook Add-In" on page 191

# Setting Enterprise Server Parameters and Enabling Web Client Automation for Outlook Add-In

To deploy the Siebel Outlook Add-In, you must set the MsgClientAddInEAIUrl enterprise server parameter, and enable Web Client Automation. You can also optionally specify values for the MsgClientAddInCacheRefreshInterval parameter and the MsgClientAddInLinkHistory parameter. This topic describes how to perform these tasks.

This task is a step in "Process of Setting Up Siebel Outlook Add-In."

## About the Messaging Client AddIn EAI Url Parameter

You must set the MsgClientAddInEAIUrl enterprise server parameter, which defines the path to the Siebel EAI object manager. The Add-In Update Agent uses this path to download data from the Siebel application and cache the data on the client's desktop. The EAI Object Manager specified does not have to be on the same computer as the PIMSI Engine, and does not have to be dedicated to the PIMSI Engine.

For information about the Add-In Update Agent, see "Installing Siebel Outlook Add-In" on page 193.

**CAUTION:** You must use the same authentication mechanism for the Application Object Manager and the EAI Object Manager used to refresh the data cache. This is because SSSE uses the user name and password of the currently logged in user to log in to the EAI Object Manager to refresh the data cache. If the authentication mechanism for the Object Manager is different from the authentication mechanism for the application, this results in a refresh failure. For additional information on authentication methods, see *Security Guide for Siebel Business Applications.*

## About the Messaging Client AddIn Cache Refresh Interval Parameter

You can optionally specify a value for the MsgClientAddInCacheRefreshInterval parameter. The MsgClientAddInCacheRefreshInterval parameter defines how often, in minutes, the Siebel Outlook Add-In refreshes the local cache for all users.

The local cache is used to store the linked Siebel data that is displayed in Microsoft Outlook. Storing a copy of the user's Siebel data in a local cache improves performance and allows the user to work offline. In determining the refresh interval of the local cache, you must consider the necessity to have current data available against the performance impact of updating this information repeatedly.

For information about how individual users can modify the refresh interval values in Outlook, see "Setting the Cache Refresh Interval" on page 196.

## About the Messaging Client AddIn Link History Parameter

The MsgClientAddInLinkHistory parameter defines, for all users, the number of days that a recently used link is to be stored on the Quick Links menu. The Quick Links menu allows a user to quickly locate recently used links without having to search through the entire list of links in the Link to Siebel dialog box.

For information about how individual users can modify the quick link retention values in Outlook, see "Setting the Quick Link Retention Period" on page 196.

The following procedure describes how to set the enterprise server parameters and enable Web Client Automation for Siebel Outlook Add-In.

### *To set the enterprise server parameters and enable Web Client Automation for Outlook Add-In*

1   Log in to the Siebel Enterprise Server host as the administrator.

2   Navigate to Administration - Server Configuration, and then Enterprises.

3   In the Enterprise Servers list, click the appropriate enterprise server, and then click the Parameters view tab.

4   In the Enterprise Parameters list and the accompanying form, select each of the parameters shown in the following table, and enter or modify values and check box settings as required.

| Parameter | Value | Effective |
|---|---|---|
| Messaging Client AddIn EAI Url<br><br>For a description of this parameter, see "About the Messaging Client AddIn EAI Url Parameter" on page 189. | Enter the Siebel EAI path `http://your_host/ eai_language-code/` | At Server Restart |
| Messaging Client AddIn Cache Refresh Interval<br><br>For a description of this parameter, see "About the Messaging Client AddIn Cache Refresh Interval Parameter" on page 189. | Optional. Modify the value of the cache refresh interval in minutes. | At Server Restart |
| Messaging Client AddIn Link History<br><br>For a description of this parameter, see "About the Messaging Client AddIn Link History Parameter" on page 190. | Optional. Modify the number of days to keep quick links. | At Server Restart |

5   On the Siebel Server where the Siebel application is enabled, complete the following substeps to modify the configuration file for the application:

   a   Navigate to the directory *Siebel_installation_home*\siebsrvr\BIN\*language-code*.

    **b**   Locate the .cfg file for the application, and open it using a text editor.

        For example, edit the uagent.cfg file for the Siebel Call Center application, or edit the siebel.cfg file for the Siebel Sales application.

    **c**   Set the EnableWebClientAutomation setting to TRUE.

    **d**   Save the file.

    **e**   Restart the Siebel Server.

## (Optional) Setting the Bucket Size User Property for Siebel Outlook Add-In

This topic describes how to set a value for the Bucket Size user property of the Messaging Client Data Service business service. The Bucket Size user property setting determines the number of Siebel data records that the Siebel Add-In Update Agent downloads to each user's local cache for display in Microsoft Outlook each time the local cache is initialized or refreshed.

If the value set for the Bucket Size user property is large, it can cause timeout errors during the data download process. If you do not set a value for the Bucket Size parameter, the default value of 2000 is used.

For information on initializing Siebel Outlook Add-In, see "Initializing Siebel Outlook Add-In" on page 193.

This task is an optional step in "Process of Setting Up Siebel Outlook Add-In."

The following procedure describes how to set the value of the Bucket Size user property for the Messaging Client Data Service business service.

### To set a value for the Bucket Size user property

**1**   Open Siebel Tools.

**2**   Lock the Messaging Client Integration project.

**3**   In the Object Explorer, expand Business Service.

**4**   In the Business Services Object List Editor, query for the Messaging Client Data Service business service.

**5**   In Object Explorer, select Business Service User Properties.

    The Business Service User Properties list displays the user properties for the Messaging Client Data Service business service.

**6**   If a Bucket Size user property exists, modify the value as required.

    If a Bucket Size user property does not exist, create a new user property as follows:

    **a**   With the Business Services User Properties list active, choose Edit, and then New Record.

        A new user property record is created.

b   Enter values similar to those shown in the following table for the new record:

| Field | Description |
|-------|-------------|
| Name | Bucket Size |
| Value | *n*<br><br>where *n* is the number of records to be downloaded to each user's local cache for display in Microsoft Outlook. For example, if Bucket Size is set to 1000, the Outlook Add In Agent downloads 1000 records at a time to the local cache. |

**7**   Recompile the Siebel repository file, and unlock the Messaging Client Integration project.

For information about the Add-In Update Agent, see "Installing Siebel Outlook Add-In" on page 193.

## (Optional) Setting Siebel Outlook Add-In Objects and Fields

This topic describes the information that Outlook Add-In ordinarily makes available. If your Siebel implementation does not require all of that information, you can use the instructions in this topic to have Outlook Add-In omit the information that your users do not require. You can also adjust the order in which Outlook Add-In supplies information from the relevant Siebel fields.

For information on adding additional Siebel objects to those that Outlook Add-In provides, see "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 197.

This task is an optional step in "Process of Setting Up Siebel Outlook Add-In."

Table 36 lists the Siebel objects and fields that Siebel Outlook Add-In makes available from Microsoft Outlook. Outlook Add-In lets you link to Siebel records that have any of the listed Siebel Object types. The data that is contained in the listed Siebel Object Fields is the data that is visible in Siebel Outlook Add-In controls.

Table 36.   Siebel Objects and Fields Available Through Outlook Add-In

| Siebel Object | Siebel Object Fields |
|---------------|---------------------|
| Account | Id, Name, Location |
| Opportunity | Id, Name, Account |
| Project | Id, Name, Account Name, Project Num |
| Service Request | ID, SR Number, Abstract, Account |

The following procedure describes how to set the Siebel Objects, Siebel Object fields, and field order that Outlook Add-In uses when supplying Siebel data.

*To set Siebel Objects and Siebel Object Fields that Outlook Add-In makes available*

**1** Log in to your Siebel application as the administrator.

**2** Navigate to Administration - PIM Server Integration, and then Siebel Objects.

**3** In the PIMCI Siebel Object list, select any object that you do not want Outlook Add-In to make available, and then click Delete.

Repeat this step until the list displays just the objects that you want Outlook Add-In to make available.

**4** In the PIMCI Siebel Object list, select any object for which you want to adjust field settings.

**5** In the Siebel Object Fields list, select the record for any field that you do not want Outlook Add-In to display in its controls, and then click Delete.

**NOTE:** Do not delete the Id or Key fields.

Repeat this step until the list displays just the fields that you want Outlook Add-In to display in its controls.

**6** In the Siebel Object Fields list, inspect the Field Sequence values for the remaining fields, and enter new values as required to produce the desired sequence.

**NOTE:** Field sequence values must be unique. To avoid error messages, enter only values that are not currently assigned to other fields.

# Installing Siebel Outlook Add-In

You must install the Siebel Outlook Add-In on each computer where it will be used.

The following procedure installs the Siebel Outlook Add-In dynamic link library (DLL) files and the Add-In Update Agent. The Add-In Update Agent is automatically started when you try to create Outlook-to-Siebel links or when you restart your computer. The Add-In Update Agent is responsible for caching and refreshing Siebel data stored on the user's computer.

This task is a step in "Process of Setting Up Siebel Outlook Add-In."

*To install Siebel Outlook Add-In*

**1** On the user's computer, close all Microsoft Outlook windows and all Siebel application windows.

**2** Navigate to the network directory that contains the installation files for your Siebel application and start the install program `. . . \Siebel_Outlook_Addin\install.exe`.

**3** Follow the installation wizard prompts. Accept all default values. You can install to any location on the user's hard drive.

# Initializing Siebel Outlook Add-In

Perform the following task to initialize the communication between Microsoft Outlook and the Siebel application on each computer.

This task is a step in "Process of Setting Up Siebel Outlook Add-In."

### *To initialize Siebel Outlook Add-In*

**1**   Start Microsoft Outlook on the user's computer.

**2**   In Microsoft Outlook, enter your Siebel user name and password as follows:

   **a**   Select Tools, Options, and then Siebel.

   **b**   Enter your Siebel user name in the User Name field and your Siebel password in the Password field, then click OK.

   When Siebel Outlook Add-In attempts to create or update the local cache, if the Siebel password entered in this field is incorrect, you are prompted to log in to the Siebel application. If you fail to create or update the local cache after the maximum number of attempts allowed, the local cache is not updated until you manually update the Siebel password in this field.

   **NOTE:** To ensure Siebel Outlook Add-In can connect to the Siebel instance to create or update the local cache, you must have enabled Web Client Automation as described in "Setting Enterprise Server Parameters and Enabling Web Client Automation for Outlook Add-In" on page 189.

   For information on configuring the maximum number of attempts a user can make to create or update the local cache, see "Configuring the Maximum Number of Siebel Login Attempts" on page 194.

**3**   In Microsoft Outlook, select any calendar, contact, or task record (or create a new record if one does not exist), choose Siebel Options, and then choose Link Selected Item(s).

**4**   When you are prompted to start the Siebel application, open a browser window, navigate to the URL for your Siebel application, and then log in.

   The Siebel client connects to the Siebel instance using the Web Client Automation server. The Siebel client calls a built-in business service that returns the EAI URL and the messaging parameters set previously, as described in "Setting Enterprise Server Parameters and Enabling Web Client Automation for Outlook Add-In" on page 189. The Siebel client then disconnects from the local Siebel instance and uses the EAI Object Manager information that it collected to populate the local cache. This process can take several minutes.

   The Siebel Add-In Update Agent is started and appears in the system tray of your Windows desktop.

**5**   Wait five minutes to allow time for the creation of the local cache file.

## Configuring the Maximum Number of Siebel Login Attempts

If you enter an incorrect Siebel password in Microsoft Outlook (see Step 2 on page 194), the Siebel Outlook Add-In client cannot connect to the Siebel application to create or update the local cache until you either log in to a new Siebel session or change the password in Microsoft Outlook.

When an invalid Siebel password is detected, Siebel Outlook Add-In prompts you to log in to the Siebel application so that the local cache can be created or updated. The following procedure describes how to change the maximum number of unsuccessful attempts you can make to create or update the local cache before Siebel Outlook Add-In requires that you manually change the Siebel password in Microsoft Outlook.

### *To configure the maximum Siebel login attempts*

**1** In the Windows Registry, navigate to the following entry:

    HKEY_CURRENT_USER\Software\Siebel Systems, Inc.\Siebel Outlook Add-
    In\MaxErrorCount

**2** The default value of the MaxErrorCount parameter is 3. Change the value of this parameter to the maximum number of Siebel login attempts you want to allow.

## Testing Siebel Outlook Add-In

Perform the following task to test linking and unlinking between Microsoft Outlook and the Siebel application.

This task is a step in "Process of Setting Up Siebel Outlook Add-In."

**1** In Microsoft Outlook, select any calendar, contact, or task record (or create a new record if one does not exist), and then choose Siebel Options, and then Link Selected Item(s).

**2** Select any record in the Siebel application.

If the link is successfully created, the link appears in the Existing Links list on the Siebel toolbar.

**3** From the Siebel Options menu, choose Unlink Record to remove the link you just created.

If you encounter no errors during linking and unlinking, then the communication between Microsoft Outlook and the Siebel application has been initialized and is working properly.

**Related Topics**

"Linking to Siebel Data from Microsoft Outlook" on page 211

# Setting Siebel Outlook Add-In Options

Siebel Outlook Add-In adds a Siebel tab to the Microsoft Outlook Options dialog box, which lets you change settings that control how Microsoft Outlook communicates with the Siebel application. This topic describes how to set the cache refresh interval and the quick links retention period using options on the Siebel tab.

## Setting the Cache Refresh Interval

The Siebel Outlook Add-In stores the linked Siebel data in a local cache file, which is updated periodically by obtaining new data from the Siebel application. By default, the cache is refreshed every three days (4320 minutes). You can change the cache refresh interval by performing the following procedure.

### *To change the Siebel Outlook Add-In cache refresh interval*

**1**   In Microsoft Outlook on the user's computer, choose Tools, and then Options.

**2**   In the Options dialog box, click the Siebel tab.

**3**   In the Cache Refresh Interval text box, enter the new interval (in minutes).

**4**   Click OK to exit the Options dialog box.

## Setting the Quick Link Retention Period

Quick Links are retained for a number of days as defined on the Siebel tab of the Microsoft Outlook Options dialog box. By default, Quick Links are retained for 30 days. You can change the Quick Link retention period by performing the following procedure.

**NOTE:** The Quick Links menu shows the links you have used most recently; it does not show all of the links that exist between Microsoft Outlook and Siebel objects. Links you create between Outlook and Siebel objects are maintained until you remove the link, as described in "Removing Links to Siebel Data" on page 212. Once a link has been removed from the Quick List because you have not used it within the retention time period you specify, it still continues to exist on any object where you set the link.

### *To change the Quick Link retention period*

**1**   In Microsoft Outlook on the user's computer, choose Tools, and then Options.

**2**   In the Options dialog box, click the Siebel tab.

**3**   In the Quick Link Retention text box, enter the new interval (in days).

**4**   Click OK to exit the Options dialog box.

# Process of Configuring Custom Objects in Siebel Outlook Add-In

Siebel Outlook Add-In allows you to link to Siebel Account, Opportunity, Project, and Service Request objects form Microsoft Outlook. This topic describes how to configure Siebel Outlook Add-In so that you can link to additional Siebel objects from within Microsoft Outlook, for example, you can configure Outlook Add-In so that you can link a Siebel Household object from a Microsoft Outlook contact record.

**NOTE:** To associate a new Siebel object with a Microsoft Outlook record, there must be an existing relationship within the Siebel repository for the business component underlying the Siebel domain. For example, if you want to make the Siebel Household object available in Microsoft Outlook and allow it to be linked with Siebel contact records, you can do so because the Contact business component has a relationship to the Household object through a multivalue link (MVL). If a relationship does not exist, create one and test it thoroughly before proceeding.

Perform the following tasks in the order shown to configure a custom Siebel object in Siebel Outlook Add-In:

**1** "Configuring List of Values" on page 197

**2** "Creating a New PIMSI Siebel Object" on page 199

**3** "Updating Integration Objects" on page 200

**4** Compile the modified integration objects to generate a new Siebel repository file (SRF), then stop the Siebel Server, deploy the new SRF, and then restart the Siebel Server.

**5** "Updating the Data Maps" on page 204

**6** "Updating the PIMSI Domain Configuration" on page 207

**7** "Updating Domain Maps" on page 209

**8** Restart the Siebel Server and test the configuration.

## Configuring List of Values

This topic describes how to create the new List of Value (LOV) types required to display the new object you are adding to Siebel Outlook Add-In, and to display the fields that are available for the object.

For additional information on LOVs, see *Configuring Siebel Business Applications*.

This task is a step in "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 197.

Perform the following procedure to create the new LOV type records.

### To create the LOV type records

**1** In Siebel Tools, navigate to the Screens menu and select System Administration, and then Lists of Values.

**2** Create LOV records using the information in the following table.

**NOTE:** In the following table, replace *Household* with the name of the Siebel object type you are adding to the Outlook Add-In.

| Type | Display Value | Language Independent Code (LIC) | Description |
|---|---|---|---|
| PIMCI_ADDIN_ OBJECT_TYPE | *Household* | *Household* | This is the new Siebel object type being added to the Outlook Add-In, for example, *Household*. The value you specify does not have to be a valid business component name; it is the name that is displayed in the Outlook Add-In. The display value is used to associate the new object type with synchronization-enabled objects. |
| LOV_TYPE | PIMCI_ADDIN_ *HOUSEHOLD_* FIELD | PIMCI_ADDIN_ *HOUSEHOLD_* FIELD | This LOV contains a list of the fields available to display for the new object type. Amend the display value and LIC value according to the type of object you are adding. |
| PIMCI_ADDIN_ *HOUSEHOLD*_FIELD | *Row Id* | Id | Id must be one of the fields available to display. By convention, the Display value is *Row Id*. |
| PIMCI_ADDIN_ *HOUSEHOLD*_FIELD | *Household* Name | *Household* Name | The Display Value is shown at the top of the list of items in the Outlook Add-in dialog box. The LIC value must be the same as the field name in the business component. This LOV Type is multilingual. Create an additional record for each field for each language required. |
| PIMCI_ADDIN_ *HOUSEHOLD*_FIELD | (*additional field name*) | (*additional field name*) | Add any additional fields required. |

| Type | Display Value | Language Independent Code (LIC) | Description |
|------|---------------|--------------------------------|-------------|
| PIMSI_ASSOC_ TYPE | *Household* | *Household* | The LIC value must the same as the business component name. |
| PIMSI_FIELD_CLASS | *Household* Name | *Household* Name | This record must exist for each field value added. The LIC value must have the same name as the field name. |

# Creating a New PIMSI Siebel Object

This topic describes how to create a new PIMSI Siebel object, which is used to define the object and fields available to the Outlook Add-in.

This task is a step in .

Follow the procedure below to create the new PIMSI Siebel object.

### To create the new PIMSI Siebel object

**1** Navigate to Administration - PIMSI Server Integration, and then Siebel Objects.

**2** In the PIMCI Siebel Object list, create a new object using the values in the following table.

**NOTE:** In the following table, replace *Household* with the name of the PIMSI Siebel object type you are adding to the Outlook Add-In.

| Parameter | Value | Description |
|-----------|-------|-------------|
| Name | *Household* | The name of the object as it is to be displayed. |
| Business Object | *Household* | A business object for which the entity is defined in Tools, and for which the primary business component is the business component underlying the object being created. |
| Business Component | *Household* | The business component that is to retrieve the records for display in the Add-in. |
| View Mode | Sales Rep | The visibility mode to be used when querying the business component. It is recommended that you do not specify the values All or Organization. |
| Display Field | *Household* Name | The field to display in the Current Siebel Links drop-down list and the Quick Links list. |

| Parameter | Value | Description |
|---|---|---|
| Translation LOV | PIMCI_ADDIN_*HOUSEHOLD*_FIELD | The multilingual LOV defined in Step 2 on page 198 for possible display fields. |
| View Name | My *Households* View | The name of the view that is displayed when the Go link is selected in Microsoft Outlook.<br><br>In choosing the view to display, ensure the following conditions exist:<br><br>■ The view business object must be the same as the business object for this record<br><br>■ The view's visibility applet type must be the same as the view mode specified for this record.<br><br>■ The view's visibility applet must be based on the same business component as that specified for this record. |
| Applet Name | *Households* List Applet | The name of the applet that is queried. |

**3** In the Siebel Object Fields applet, create a record for each field that is to display in the Siebel Outlook Add-Id using values similar to those shown in the following table.

| Name | Field Sequence | Description |
|---|---|---|
| Id | 0 | The sequence 0 must always be Id |
| *Household* Name | *1* | List the remaining fields that you want to display in the required sequence order. Each field uses the LIC value from the Translation LOV (in this example, PIMCI_ADDIN_HOUSEHOLD_FIELD). When displayed in the user interface, the display value of the LOV is used for the current user language. |

## Updating Integration Objects

This topic describes how to update the PIMSI Integration Object and the PIMSI Intermediate Integration object that SSSE uses for synchronization. Updating these objects allows the PIMSI server components to correctly synchronize data after a user has selected the Siebel object that you have made available in the Siebel Outlook Add-In.

You must update the integration objects of the domain associated with the Microsoft Outlook record.
For example, if you are configuring the Siebel Outlook Add-In to link Microsoft Outlook contact
records with Siebel Household records, the two Integration Objects that you must update are the
PIMSI Business Contact and the PIMSI Intermediate Business Contact integration objects.

This task is a step in .

**NOTE:** When performing the procedures in this topic, replace *Household* with the name of the Siebel
object you are adding to the Siebel Outlook Add-In, and *Contact* with the name of the Microsoft
Outlook object you want to link to the new Siebel object.

The following procedure describes how to update the PIMSI Integration Object.

### *To update the PIMSI Integration object*

1   In Siebel Tools, query for the relevant Integration Object for the domain being updated, in this
example, PIMSI Business Contact.

2   Create a new Integration Component, or activate an existing component, specifying values
similar to those shown in the following table.

For information on creating and activating Integration Objects, see *Integration Platform
Technologies: Siebel Enterprise Application Integration*.

| Attribute | Value | Description |
|---|---|---|
| External Name Context | *Contact_Household* | Specify *ParentObjectName_New AddInObject* |
| Name | *Contact_Household* | Specify the value chosen for the External Name Context attribute. |
| Parent Integration Component | *Contact* | The name of the parent Integration Object. |
| External Name | *Household* | The name of the Siebel object you are adding to Outlook Add-In. |
| External Sequence | *6* | Specify the next available sequence number. |
| Cardinality | *Zero* or *More* | Because *Household* is not a required field, you can specify either Zero or More for the Cardinality attribute. |
| XML Container Element | ListOf*Contact_Household* | Specify ListOf*NameAttributeValue* |
| XML Sequence | *10,006* | 10,000 plus the External Sequence number specified. |
| XML Tag | *Contact_Household* | Specify the same value as that chosen for the Name attribute. |

3  Select the *Contact_Household* Integration Component, then add a record to the Integration Component User Props applet to indicate that the child (*Household*) object is to be treated as an MVG.

| Name | Value |
|------|-------|
| MVGAssociation | Y |

4  Create Integration Component Fields for system fields, and for any field that you want to expose in the Outlook Add-in, using values similar to those shown in the following table.

   **NOTE:** You must create the first three fields shown in the following table.

| Attribute | Field 1 | Field 2 | Field 3 | Field 4 |
|-----------|---------|---------|---------|---------|
| Name | *Household* Id | IsPrimaryMVG | operation | *Households* |
| Data Type | DTYPE_ID | DTYPE_TEXT | DTYPE_TEXT | DTYPE_TEXT |
| Len | 30 | 1 | 30 | 100 |
| Type | Data | System | System | Data |
| Ext. Name | *Household* Id | IsPrimaryMVG | operation | *Household* Name |
| Ext. Data Type | | | | DTYPE_TEXT |
| Ext. Length | | | | 100 |
| Ext. Seq. | 1 | 2 | 3 | 4 |
| XML Seq. | 1 | 2 | 3 | 4 |
| XML Style | Element | Attribute | Attribute | Element |
| XML Tag | *Household*ID | IsPrimaryMVG | operation | *Household*Name |

5  For the *Household* Name Integration Component field, specify the following user property to indicate that the name of the field in the child business component (in this example, *Household*) is different to the name in the parent business component (in this example, *Contact*).

| Name | Value |
|------|-------|
| AssocFieldName | *Household* Name |

6  For the Household Id Integration Component field, specify the following Integration Component Field user property to indicate that name of the field in the child business component (in this example, *Household*) is different to the name in the parent business component (in this example, *Contact*).

| Name | Value |
|------|-------|
| AssocFieldName | Id |

**7** Create Integration Component Keys using values similar to those shown in the following table.

| Name | Key Sequence Number | Key Type |
|------|---------------------|----------|
| Status Key | | Status Key |
| User Key:1 | 1 | User Key |

**8** For the Status Key Integration Component Key, add the following Integration Component Key
fields, using values similar to those shown in the table.

| Name | Field Name |
|------|------------|
| Id | *Household* Id |
| Operation | operation |

**9** For the User Key: 1 Integration Component Key, add the following Integration Component Key
fields, using values similar to those shown in the table.

| Name | Field Name |
|------|------------|
| *Household* Name | *Household* Name |

The following procedure describes how to update the PIMSI Intermediate Integration Object.

### *To update the PIMSI Intermediate Integration object*

**1** In Siebel Tools, query for the relevant Intermediate Integration Object for the domain being
updated, in this example, PIMSI Intermediate Business Contact.

**2** Create a new Integration Component specifying values similar to those shown in the following
table.

For information on creating and activating Integration Objects, see *Integration Platform
Technologies: Siebel Enterprise Application Integration*.

| Attribute | Value | Description |
|-----------|-------|-------------|
| External Name Context | *Household*Info | Specify *AddInObjectName*Info. |
| Name | *Household*Info | Specify the value chosen for the External Name Context attribute. |
| Parent Integration Component | *BusinessContact* | The name of the parent Integration Object. |
| External Name | *Household*Info | Specify *AddInObjectName*Info. |
| External Sequence | 1 | This value must be set to 1. |

| Attribute | Value | Description |
|---|---|---|
| Cardinality | One or More | This value must always be set to One or More. |
| XML Container Element | ListOf*Household*Info | Specify ListOf*NameAttributeValue* |
| XML Sequence | 1 | This value must always be set to 1. |
| XML Tag | *Household*Info | Specify the same value as that chosen for the Name attribute. |

**3** Create Integration Component fields for system fields, and for any field that is to be exposed in the Outlook Add-in, using values similar to those shown in the following table.

**NOTE:** You must create the two fields shown in the following table, and can create additional fields as required.

| Attribute | Field 1 | Field 2 |
|---|---|---|
| Name | *Household*Id | *HouseholdName* |
| Data Type | DTYPE_TEXT | DTYPE_TEXT |
| Len | | |
| Type | Data | Data |
| Ext. Name | *Household*Id | *Household*Name |
| Ext. Seq. | 1 | 2 |
| XML Seq. | 1 | 2 |
| XML Style | Element | Element |
| XML Tag | *Household*Id | *Household*Name |

When you have modified the PIMSI Integration Objects, compile the modified integration objects to generate a new Siebel repository file (SRF), then stop the Siebel Server, deploy the new SRF, and then restart the Siebel Server.

# Updating the Data Maps

This topic describes how to update the Inbound and Outbound Siebel Data Maps to identify the new fields you created for the PIMSI integration objects described in "Updating Integration Objects" on page 200.

This task is a step in "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 197.

**NOTE:** When performing the procedures in this topic, replace *Household* with the name of the Siebel object you are adding to the Siebel Outlook Add-In, and *Contact* with the name of the Microsoft Outlook object you want to link to the new Siebel object.

The following procedure describes how to update the Siebel Inbound Data Maps.

### *To update the Siebel Inbound Data Maps*

**1** In your Siebel application, navigate to Administration - Integration, and then Data Map Editor.

**2** Query for the relevant Inbound Map, in this example, the PIMSI Business Contact Inbound Map.

**3** In the Integration Component Map applet, add a new record for the new entity, using values
similar to those shown in the following table.

| Attribute | Value | Description |
| --- | --- | --- |
| Name | *HouseholdInfo_ContactHousehold* | Specify the name of the integration object component from the PIMSI intermediate integration object, then the name of the integration object component from the PIMSI integration component. |
| Source Component Name | *HouseholdInfo* | Specify the name of the integration object component from the PIMSI intermediate integration object component. |
| Target Component Name | *Contact_Household* | Specify the name of the integration object component from the PIMSI integration object component. |

**4** In the Integration Field Map applet, add a new record for each field that is to be exposed in the
Outlook Add-In, using values similar to those shown in the following table. In this example, add
only two fields, *HouseholdName* and *HouseholdId*. You can add additional rows, if required.

| Source Expression | Target Field Name | Description |
| --- | --- | --- |
| *[HouseholdName]* | *Household Name* | The Source Expression must contain an expression. In most cases, the expression is an integration component field name in square brackets. It can be a more complex expression, for example, an IIF(...) expression. |
| [*HouseholdId*] | *Household Id* | See *Configuring Siebel Business Applications* for information on building expressions. |

**5** In the Integration Object Map applet, click the Validate button to verify the mapping.

The following procedure describes how to update the Siebel Outbound Data Maps.

### To update the Siebel Outbound Data Maps

**1** In your Siebel application, navigate to Administration - Integration, and then Data Map Editor.

**2** Query for the relevant Outbound Map, in this example, the PIMSI Business Contact Outbound Map.

**3** In the Integration Component Map applet, add a new record for the new entity, using values similar to those shown in the following table.

| Attribute | Value | Description |
|---|---|---|
| Name | *ContactHousehold_HouseholdInfo* | Specify the name of the Integration Object Component from the PIMSI integration object, then the name of the integration object component from the PIMSI intermediate integration component. |
| Source Component Name | *Contact_Household* | Specify the name of the integration object component from the PIMSI integration object component. |
| Target Component Name | *HouseholdInfo* | Specify the name of the integration object component from the PIMSI intermediate integration object component. |
| Source Search Specification | *IsMVGPrimary='Y'* | Only the primary MVG records can be shown in Outlook Add-In. |

**4** In the Integration Field Map applet, add a new record for the Id field, and for each field that is to be exposed in the Outlook Add-In, using values similar to those shown in the following table. In this example, add the *HouseholdName* field. You can add additional rows, if required.

| Source Expression | Target Field Name | Description |
|---|---|---|
| *[Household Name]* | *HouseholdName* | The Source Expression must contain an expression. In most cases, the expression is an integration component field name in square brackets. It can be a more complex expression, for example, an IIF(...) expression. |
| [*Household Id*] | *HouseholdId* | See *Configuring Siebel Business Applications* for information on building expressions. |

**5** In the Integration Object Map applet, click the Validate button to verify the mapping.

# Updating the PIMSI Domain Configuration

This topic describes how to update the PIMSI domains to reflect the updated data mappings. You must update the Siebel domain and the PIM domain, then configure the PIM domain to map the Intermediate Integration Component fields to the appropriate fields in Microsoft Exchange.

This task is a step in .

**NOTE:** When performing the procedures in this topic, replace *Household* with the name of the Siebel object you are adding to the Siebel Outlook Add-In, and *Contact* with the name of the Microsoft Outlook object you want to link to the new Siebel object.

The following procedure describes how to update the Siebel Domain.

### To update the Siebel domain

1 Navigate to Administration - PIM Server Integration, and then Siebel Domains.

2 Query for the relevant domain, in this example, the Siebel Business Contact domain.

3 In the Siebel Domain Fields applet, click the Sync Fields button.

4 Add a new record for the ROW_ID field, and for each of the fields to be exposed in Outlook Add-In, using values similar to those shown in the following table.

| Attribute | Field 1 | Field 2 |
|---|---|---|
| Name | *Household* Id | *Households* |
| Field Identifier | *Household*Id | *Household*Name |
| Field Type | Id | *Household* Name |
| Data Type | String | String |
| Assoc. Type | *Household* | *Household* |
| Related BusComp | *Household* | *Household* |
| Parent | *HouseholdInfo* | *HouseholdInfo* |
| Len. | 15 | 100 |
| Prec. | 15 | 100 |
| Multi-Valued | No | Yes |
| Read Only | No | Yes |

The following procedure describes how to update the PIM Domain.

### To update the PIM domain

1 Navigate to Administration - PIM Server Integration, and then PIM Domains.

**2** Query for the relevant domain, in this example, the Exchange Contact domain.

**3** In the PIM Domain Fields applet, add a new record for the ROW_ID field, and for each of the fields to be exposed in Outlook Add-In, using values similar to those shown in the following table.

| Name | Field Identifier | Field Type | Data Type |
|------|------------------|------------|-----------|
| *Household* Id | *HouseholdId* | Id | Unicode String |
| *Household* Name | *HouseholdName* | *Household* Name | Unicode String |

The following procedure describes how to configure the PIM domain by mapping the Intermediate Integration Component fields to the Microsoft Outlook Exchange fields; this is necessary so that SSSE will query and update the appropriate fields in Microsoft Exchange.

### To configure the PIM domain

**1** Navigate to Administration - PIM Server Integration, and then Configuration.

**2** Query for the relevant PIM domain, in this example, the Exchange Contact domain.

**3** In the Configuration Parameters applet, create records using values similar to those shown in the following table.

| Section | Parameter | Value | Description |
|---------|-----------|-------|-------------|
| *Household* Id | PropertySetGUID | {00020329-0000-0000-C000-000000000046} | You must specify the value shown. This is an identifier that indicates the property set where the MAPIPropertyName is placed. |
| *Household* Id | MAPIPropertyName | *Household*Id | This is the name of the MAPI property where the value is stored in Microsoft Exchange. This must be unique across all Value fields. |
| *Household* Id | SubNamespace | String | You must specify String for this value. |
| *Household* Name | PropertySetGUID | {00020329-0000-0000-C000-000000000046} | You must specify the value shown. This is an identifier that indicates the property set where the MAPIPropertyName is placed. |

| Section | Parameter | Value | Description |
|---------|-----------|-------|-------------|
| *Household* Name | MAPIPropertyName | *Household*Name | This is the name of the MAPI property where the value is stored in Microsoft Exchange. This must be unique across all Value fields. |
| *Household* Name | SubNamespace | String | You must specify String for this value. |

## Updating Domain Maps

This topic describes how to update domain maps so as to link the Siebel objects used by the Siebel
Outlook Add-In and the integration information used by the synchronization process.

This task is a step in "Process of Configuring Custom Objects in Siebel Outlook Add-In" on page 197.

**NOTE:** When performing the procedures in this topic, replace *Household* with the name of the Siebel
object you are adding to the Siebel Outlook Add-In, and *Contact* with the name of the Microsoft
Outlook object you want to link to the new Siebel object.

The following procedure describes how to update the domain maps.

*To update domain maps*

1 Navigate to Administration - PIM Server Integration, and then Domain Map.

2 In the Domain Map applet, query for the relevant domain map, in this example, the Siebel-
Exchange Business Contact Map.

3 Click the Siebel Objects tab.

4 Click the New button, and in the Add Siebel Objects list, select the Siebel object created in
"Creating a New PIMSI Siebel Object" on page 199.

5 Click the Field Map tab.

Verify that the correct domain map (in this example, the Siebel-Exchange Business Contact Map)
is still selected in the Domain Map applet.

6 In the Field Map applet, create records with values similar to those shown in the following table.

| Siebel Field | PIM Field | Sync Enabled | Key Field |
|--------------|-----------|--------------|-----------|
| *Household Id* | *Household* Id | Yes | No |
| *Households* | *Household* Name | Yes | No |

7 Click the Siebel Object Fields tab.

**8** Associate the appropriate Field Maps (in the middle applet) with the Siebel Object Fields (in the lower applet), as indicated in the following table.

| Field Map (middle applet) | Item to Associate | Siebel Object Name (bottom applet) |
|---|---|---|
| *Household* Id | Id | *Household* |
| *Household* Name | *Household* Name | *Household* |

# About Using Siebel Outlook Add-In

The Siebel Outlook Add-In adds a Siebel Options menu, a Siebel toolbar, and right-click menu items to the Microsoft Outlook interface. These features let you link to records in the Siebel application. You can also remove links using these controls.

Table 37 lists the types of Siebel records that you can link to from Microsoft Outlook.

Table 37.    Supported Outlook-to-Siebel Record Linking

| Microsoft Outlook Record Type | Can Link to These Siebel Record Types |
|---|---|
| Calendar | Account |
| | Opportunity |
| | Project |
| | Service Request |
| Task | Account |
| | Opportunity |
| | Project |
| | Service Request |
| Contact | Account |
| | Opportunity |
| | Project |

Each Microsoft Outlook record can support a single link to each Siebel record type. For example, a Microsoft Outlook contact can link to one Siebel account, one Siebel opportunity, and one Siebel project. If you link to a new Siebel record and a link of that type already exists, the new link replaces the old link.

You can associate the same Siebel record to multiple Microsoft Outlook records. By selecting multiple Outlook records, and then associating the Siebel records, you can assign the same Siebel record to multiple Outlook records in a single operation.

For more information about using Siebel Outlook Add-In, see:

■ "Linking to Siebel Data from Microsoft Outlook" on page 211

■ "Using Outlook Add-In Quick Links" on page 211

■ "Using Outlook Add-In Links" on page 212

■ "Removing Links to Siebel Data" on page 212

■ "About Using Outlook Add-In with the Mobile Web Client" on page 213

## Linking to Siebel Data from Microsoft Outlook

Perform the following task to link from Microsoft Outlook records to Siebel records.

### To link to Siebel data from Microsoft Outlook

**1** In Microsoft Outlook, select one or more calendar appointments, tasks, or contacts.

**2** From the Siebel Options menu, choose Link Selected Item(s).

   **NOTE:** You can also create links using the Siebel toolbar and the right-click menu.

**3** In the Create Siebel Links dialog box, from the Link Type drop-down list, choose a Siebel record type.

**4** Select a record from the list, and then click Add.

**5** When you have defined all of the links, click OK.

   The links appear in Current Siebel Links on the Siebel toolbar and also on the Siebel Options, Quick Links list.

**Related Topic**
"About Using Siebel Outlook Add-In" on page 210

## Using Outlook Add-In Quick Links

When you link to Siebel data from Microsoft Outlook, the link is automatically added to the Siebel Options, Quick Link list. You can use the Quick Link list to link one of the listed Siebel records to another Microsoft Outlook record, or records. By default, the Quick Link list retains links for 30 days. To change the Quick Link retention period, see "Setting the Quick Link Retention Period" on page 196.

**NOTE:** The Quick Links menu shows the links you have used most recently; it does not show all of the links that exist between Microsoft Outlook and Siebel objects. Links you create between Microsoft Outlook and Siebel objects are maintained until you remove the link, as described in "Removing Links to Siebel Data" on page 212. Once a link has been removed from the Quick List because you have not used it within the retention time period you specify, it still continues to exist.

The following procedure describes how to use a Quick Link.

### *To use a Quick Link*

**1**  In Microsoft Outlook, select one or more calendar appointments, tasks, or contacts.

**2**  From the Siebel Options menu, choose Quick Links, and then choose the desired link.

The selected record is linked to the current Microsoft Outlook record, or records.

**Related Topic**
"About Using Siebel Outlook Add-In" on page 210

## Using Outlook Add-In Links

When you link to Siebel data from Microsoft Outlook, the link is automatically added to the Current Siebel Links drop-down list on the Siebel toolbar. This list displays the Siebel links associated with the currently selected Microsoft Outlook record. Selecting a link from the list lets you access the Siebel record from Microsoft Outlook.

Links you create between Microsoft Outlook and Siebel objects are maintained, and the Microsoft Outlook object continues to be synchronized with the Siebel application, until you remove the link, as described in "Removing Links to Siebel Data" on page 212.

The following procedure describes how to use a link.

### *To use a link*

**1**  In Microsoft Outlook, select one or more calendar appointments, tasks, or contacts.

**2**  On the Siebel toolbar, choose a link from the Current Siebel Links drop-down list, and then click Go.

The associated record is displayed in the Siebel application.

**Related Topic**
"About Using Siebel Outlook Add-In" on page 210

## Removing Links to Siebel Data

This topic describes how to remove individual links or all the links associated with a Microsoft Outlook record.

The following procedure describes how to remove an individual link associated with a Microsoft Outlook record.

### *To remove individual links associated with a Microsoft Outlook record*

**1**  In Microsoft Outlook, select a calendar appointment, task, or contact.

**2** From the Siebel Options menu, choose Link Selected Item(s).

**3** In the Create Siebel Links dialog box, under Siebel Links, select a link, and then click Remove.

**4** When you have removed the appropriate links, click OK.

The following procedure describes how to remove all the links associated with a Microsoft Outlook record.

*To remove all links associated with a Microsoft Outlook record*

**1** In Microsoft Outlook, select one or more calendar appointments, tasks, or contacts.

**2** From the Siebel Options menu, choose Remove Current Link(s).

NOTE: You can also remove links using the right-click menu.

**3** Click Yes in the confirmation dialog box.

All links associated with the selected Microsoft Outlook records are removed.

**Related Topic**

# About Using Outlook Add-In with the Mobile Web Client

Although the Siebel Mobile Web Client uses a local database and file system, and Outlook Add-in only downloads data from a server EAI object manager, and synchronization only runs on the server, not against the Siebel Mobile Web Client database, you can still use Outlook Add-In with the Mobile Web Client.

The following capabilities are available with Outlook Add-In even when your computer is not connected to a network:

■ If the Siebel Mobile Web Client is running, you can use Siebel links to navigate from Microsoft Outlook to a Siebel record in the local database.

■ You can create or modify Siebel links in Microsoft Outlook, whether Outlook is running in offline mode or connected to the Microsoft Exchange Server, provided that the Siebel records involved are already present in the desktop cache. This cache is refreshed only when the computer is connected to the Enterprise or Regional Siebel database. For this reason, records that are created in the local Siebel database are not present in the desktop cache until after the local database has been synchronized with the Enterprise or Regional database, and the desktop cache has been refreshed. A background process checks once a minute to determine whether the computer is connected to the Enterprise or Regional Siebel database and whether the refresh interval has passed. If both these conditions are met, the cache is updated automatically. For information about setting the cache refresh interval, see "Setting the Cache Refresh Interval" on page 196.

■ If you create items such as Siebel links in Microsoft Outlook while working offline, those items are cached in an .OST file. The next time you synchronize your offline Microsoft Outlook folders with your Microsoft Exchange Server folders, either automatically or manually, Outlook copies your cached items to the Exchange Server.

■ If you create an association by means of a Siebel link in Microsoft Outlook (for example, if you link an Outlook contact to a particular Siebel account in your local database), the association is not visible in the Siebel Mobile Web Client until both of the following events have taken place:

   ■ The data in Microsoft Outlook reaches the Microsoft Exchange Server and is synchronized with the Siebel database by SSSE.

   ■ The local Siebel database is synchronized with the Enterprise or Regional database

   For an example of a Siebel account being associated with a Microsoft Outlook contact record, after these two synchronizations have taken place, the account name appears in the contact record regardless of whether you are using the local database or the Enterprise or Regional database.

**Related Topic**

# 10 Setting Up and Using Embedded Outlook Calendar

This chapter describes how to set up and use the Embedded Outlook Calendar deployment option for SSSE. The chapter includes the following topics:

## About Embedded Outlook Calendar

Embedded Outlook Calendar (EOC) lets users access their Microsoft Outlook calendar from within the Siebel application.

The EOC interfaces with the Microsoft Exchange Server, and is a fully functional Outlook client that offers the same functionality as Microsoft Outlook. When appointments are created using the EOC, they are placed directly into the Microsoft Exchange Server and not the Siebel database. SSSE synchronizes these appointments into the Siebel database using PIMSI Engine. After this occurs, users can access the records originally created in the EOC in any Siebel Activity view.

The SSSE administrator can choose to give users access to only the EOC or both the EOC and the Siebel calendar. For more information about accessing the Siebel calendar and the Embedded Outlook Calendar, see "About Siebel Calendars and Views" on page 215.

## About Siebel Calendars and Views

Depending on your Siebel implementation, you may have access to one or more types of calendars. Table 38 on page 216 lists the available Siebel calendars and views. For the Embedded Outlook Calendar, the Outlook View Control is embedded in the Siebel application to allow viewing of the Outlook calendar from within the Siebel application. This calendar is represented by a single view called HI Activity Outlook Calendar View. This view works only in High Interactivity (HI) mode.

### Calendar Visibility

The regular Siebel view visibility controls the visibility of the three calendar types (SI Calendar, HI Calendar, and Embedded Outlook Calendar). If a user has a responsibility that permits visibility of all three views, then three calendar links appear on the user's Calendar tab. Each link corresponds to one of the calendar types.

Table 38 illustrates the calendar views associated with responsibilities.

Table 38.   Calendars and Views

| Calendar | View Name | Description | Responsibility |
|----------|-----------|-------------|----------------|
| Standard Interactivity (SI) Calendar | eCalendar Daily View | Daily calendar | SI Calendar (and many others) |
| | eCalendar Weekly View | Weekly calendar | |
| | eCalendar Monthly View | Monthly calendar | |
| High Interactivity (HI) Calendar (aka JavaScript Calendar) | HI Activity Calendar View | Daily, Weekly, and Monthly calendars in a single view | Many responsibilities |
| Embedded Outlook Calendar | HI Activity Outlook Calendar View | Outlook calendar | Embedded Outlook Calendar |

**Related Topic**
"Enabling Embedded Outlook Calendar Visibility" on page 218

# System Requirements for Embedded Outlook Calendar

Before deploying the Embedded Outlook Calendar, you must have installed the PIMSI Engine to ensure that appointments created in the Embedded Outlook Calendar are synchronized with the Siebel database. For more information about PIMSI Engine, see "SSSE Deployment Options" on page 18.

You must install a supported version of Microsoft Outlook on the computer of each user who uses Embedded Outlook Calendar. For information about supported versions, see *System Requirements and Supported Platforms* on Oracle Technology Network.

# Process of Setting Up Embedded Outlook Calendar

To deploy the Embedded Outlook Calendar, complete the following tasks in the order shown:

1  "Verifying the Outlook Day/Week/Month View Names" on page 217

2  "Enabling Embedded Outlook Calendar Visibility" on page 218

# Verifying the Outlook Day/Week/Month View Names

To display the Embedded Outlook Calendar, you must specify the Microsoft Outlook Day/Week/Month view names for the language that your Siebel implementation uses. This task is a step in .

The following procedure describes how to verify the Microsoft Outlook Day/Week/Month view names.

### To verify Day/Week/Month view names

1  Navigate to Administration - PIM Server Integration, and then Configuration.

2  In the PIM Server Integration Configuration list, select Siebel Outlook Calendar.

3  In the Configuration Parameters list, verify that the following records exist. The example shown is for the ENU (English-US) language code.

| Section | Parameter | Value |
|---------|-----------|-------|
| Day/Week/Month_ENU | Day/Week/Month | Day/Week/Month |
| Day/Week/Month_ENU | Day/Week/Month View With AutoPreview | Day/Week/Month View With AutoPreview |

4  If these records do not exist, then the Siebel administrator must create them as follows.

**NOTE:** In the following table *language code* is a three-letter Siebel language code in uppercase letters, for example, ENU.

| Section | Parameter | Value |
|---------|-----------|-------|
| Day/Week/Month_*language code* | Day/Week/Month | Enter a language-dependent Outlook view name for Day/Week/Month.<br><br>You can retrieve the Outlook view names from your Outlook Calendar, by choosing View, Arrange By, and then Current View.<br><br>Typically, the first two views are Day/Week/Month and Day/Week/Month View With AutoPreview, respectively. You can also use other views as long as the views contain Day, Today, Work Week, Week, and Month buttons required by the Siebel application. |
| Day/Week/Month_*language code* | Day/Week/Month View With AutoPreview | Enter a language-dependent Outlook view name for Day/Week/Month View With AutoPreview. |

# Enabling Embedded Outlook Calendar Visibility

This topic describes how to allow user visibility to the Embedded Outlook Calendar.

This task is a step in "Process of Setting Up Embedded Outlook Calendar" on page 216.

To allow user visibility to the Embedded Outlook Calendar, the following conditions must be true:

■ An administrator must map the Outlook user to a Siebel user login. To do this, see "Process of Setting SSSE Group and User Access Controls" on page 117.

■ The Siebel user must have a responsibility that includes the HI Activity Outlook Calendar View. You can accomplish this task in one of the following ways:

   ■ Assign the HI Activity Outlook Calendar View to an existing responsibility that is already assigned to the desired users.

   ■ Assign the Embedded Outlook Calendar responsibility to the desired users. See the following procedure.

■ The copy of Microsoft Outlook on the user's computer must be configured to use the user's profile by default, rather than prompting the user to select a profile.

■ The computer from which the user accesses Embedded Outlook Calendar must be able to communicate with the user's Microsoft Exchange Server. For more information consult your Microsoft Exchange documentation.

■ The user must log into the computer using the Active Directory login that corresponds to the PIM User Identifier that is set up in the user map of the Siebel application.

If the previous conditions are true, then users are able to access their Microsoft Outlook calendars from the Calendar tab of the Siebel application; however this does not make sure that their Microsoft Outlook calendars are synchronized with their Siebel calendars. To set calendar and user synchronization, see "Setting Siebel Domain-Level Synchronization" on page 111, and "Enabling or Disabling User Synchronization" on page 123.

**NOTE:** If you want the user to have access to only the Embedded Outlook Calendar, then you must remove the HI Activity Calendar View, eCalendar Daily View, eCalendar Weekly View, and eCalendar Monthly View from the user's responsibilities.

The following procedure describes how to allow user visibility to the Embedded Outlook Calendar.

### To assign Embedded Outlook Calendar responsibility to a user

1   Navigate to Administration - Application, and then Responsibilities.

2   In the Responsibilities list, select the Embedded Outlook Calendar record.

3   In the Users list, click New, and then select a user.

**Related Topics**
"About Siebel Calendars and Views" on page 215

# About Using Embedded Outlook Calendar

The Embedded Outlook Calendar is a fully functional Outlook client that functions the same as the Microsoft Outlook application. However, EOC has the following limitations:

■ If another user logs in to the Siebel application from your computer, the EOC automatically switches to the Siebel calendar. This is a security requirement.

■ It is not possible to view another user's EOC. If you attempt to view another user's calendar from your EOC using the Owner drop-down list, the other user's calendar displays as a Siebel calendar (HI Activity Calendar View).

# About Embedded Outlook Calendar and the Siebel Mobile Web Client

If your computer is set up to use the Siebel Mobile Web Client with a local database and file system, and to use Microsoft Outlook in offline mode, you can use Embedded Outlook Calendar even when your computer is not connected to a network. The following capabilities are available in this situation:

■ If a user has a responsibility that grants visibility for the HI Activity Outlook Calendar View, then the Embedded Outlook Calendar is the only calendar view that the Siebel application displays when that user is connected to the local database.

■ Records that are created in the Embedded Outlook Calendar are stored on the Microsoft Exchange Server if Outlook is connected to the server, and in a local file if Outlook is being run offline.

■ Records that are created in the Siebel application are stored in the local database.

■ Records are not completely synchronized until all of the following have taken place:

  ■ Microsoft Outlook synchronizes locally stored data with the Microsoft Exchange Server

  ■ SSSE synchronizes the Microsoft Exchange Server with the Siebel database

  ■ Siebel Mobile Web Client synchronizes with the Enterprise or Regional database

# Index